September 18, 2017

Public Comment
Statewide Dredged or Fill Procedures
Deadline: 9/18/17 by 12 noon

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-2000

Sent Via E-Mail to: commentletters@waterboards.ca.gov

Re: State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State

Dear Ms. Townsend:

Our organizations (collectively, the "Coalition") appreciate the opportunity to comment on the State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State ("Procedures"), formerly known as the Wetland and Riparian Area Protection Policy.

We have been involved in the State Water Resources Control Board's ("State Board") efforts to protect wetlands for over 15 years following the U.S. Supreme Court's decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC). During this time, we have consistently advocated that if any new measures are adopted by the State Board, those measures should focus on protecting wetlands no longer subject to federal jurisdiction by filling the SWANCC gap without adding duplicative regulatory processes that increase burdens on regulated entities.

While we appreciate the State Board's efforts to create a program that is consistent with the Corps' current regulatory requirements, we continue to have concerns about the scope of the Procedures which are overbroad relative to the needs and legal authority, and the burdens they will place on public and private project sponsors and on Water Board staff.

As currently drafted, the Procedures will create unnecessary conflict by proposing a new wetland definition that differs from the definition that has been used by the U.S. Army Corps of Engineers ("Corps") since 1977. This will result in features being classified as a wetland by the Water Board but as non-wetland waters by the Corps, leading to conflicting alternatives analysis determinations and mitigation requirements.

The Procedures will also set new regulatory requirements that will affect projects across the state — from large infrastructure projects to smaller projects necessary for the operations of many medium and small business owners, who are now complying with a multiplicity of new and costly water quality regulations.

Unless modified, the Procedures will slow to a crawl the U.S. Army Corps of Engineers' streamlined Nationwide Permit ("NWP") program. The thresholds under consideration are so low that, ironically, even small projects involving operations and maintenance improvements will be forced to prepare an alternatives analysis. We estimate that each year more than 200 projects that qualify for a Corps NWP will be subject to costly and time-consuming application requirements, forcing project sponsors to engage biologists, engineers, economists, and attorneys to identify, design, and evaluate a range of on- and offsite alternatives. Medium and small businesses and many local governments cannot afford these added costs. Improvements will not be undertaken, and good-paying jobs in disadvantaged rural areas lost.

Water Board staff, too, will experience the strain. We estimate the work required to review and evaluate additional materials and make the requisite findings required by the Procedures will need sixteen (16) full-time employees to handle.

Accordingly, if the State Board determines it needs to act, we encourage the adoption of a program that fills the regulatory gap by protecting non-federal waters of the state as if they were regulated by the Corps' current procedures, including adopting a wetlands definition and delineation techniques that are identical to the well-established definition used by the Corps. If the State Board nevertheless decides to move forward with the Procedures, we urge it to make the changes outlined in the attached comment package.

We appreciate the opportunity to provide you with our comments. Please contact us with any questions or comments regarding the attached comment package.

Sincerely,

Will Scott
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African-American Farmers of California

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Executive Director
American Pistachio Growers

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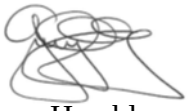

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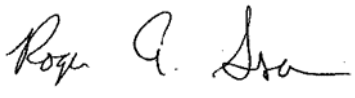

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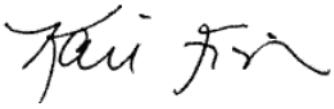

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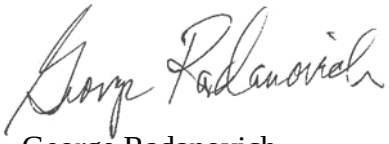

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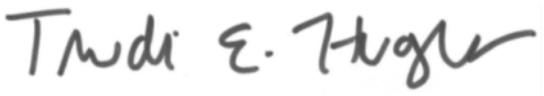

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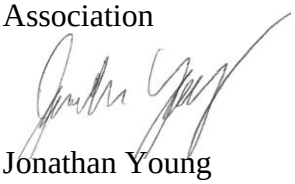

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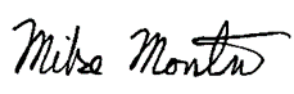

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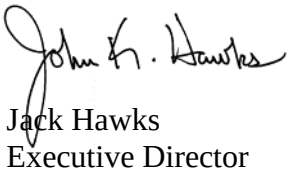

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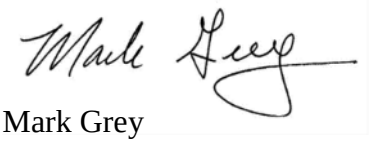

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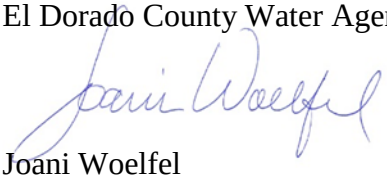

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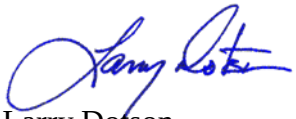

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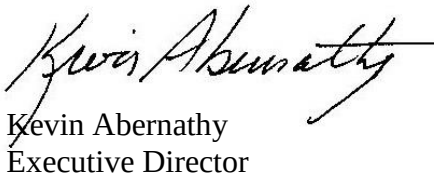

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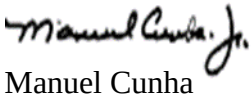

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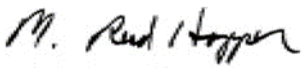

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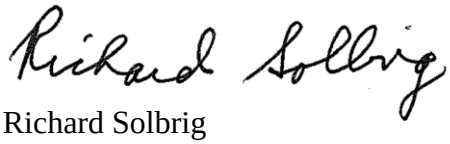

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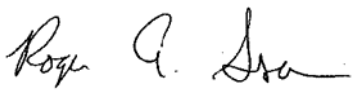

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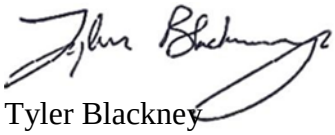

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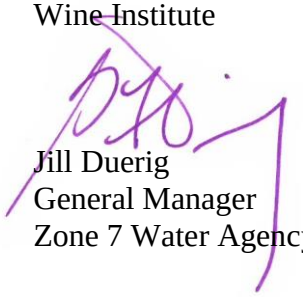

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Coalition Comments on Proposed State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State - July 21, 2017 Final Draft

September 18, 2017

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ATTACHMENTS

Coalition Comments on Proposed State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State - July 21, 2017 Final Draft

I. Introduction

The Proposed State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State - July 21, 2017 Final Draft (Procedures) must not be finalized as currently drafted. It is still a solution in search of a problem, with unintended consequences and significant impacts on applicants, the State Board Water Resources Control Board (State Board), the Regional Water Quality Control Boards (Regional Boards, and collectively with the State Board, the Water Boards), and the public. Furthermore, as the U.S. Army of Corps of Engineers (Corps) identified in its comments on the prior June 27, 2016 proposal, the State Board does not have the legal authority to adopt this proposal and it interferes with the Corps' implementation of the federal program. The Coalition shares the Corps' concerns as outlined in our comments dated August 16, 2016, on the prior proposal.

The Coalition submitted detailed comments on the prior draft of the Procedures. We urged the State Board, if it was going to proceed, to limit the scope of the Procedures to filling the *SWANCC* gap, make the Procedures consistent with federal law, and reduce the number of case-by-case determinations to provide for consistent application across the state. By and large, our legal and practical concerns were not meaningfully addressed in the responses to comments, and the fatal defects remain in the current draft of the Procedures and accompanying staff report.

Unfortunately, notwithstanding the existing uncertainty and unresolved concerns associated with the proposal, it is clear that the State Board intends to move forward to finalize the Procedures. Absent revision, as addressed in these comments, this is a mistake. Recognizing that the State Board will likely proceed, the Coalition wants to provide productive responses to minimize negative impact if the State Board moves forward in adopting this process. Therefore, the comments below focus on making the Procedures consistent with well-established federal processes and definitions, and clarifying ambiguous or open-ended permitting requirements. This will promote the State Board's stated goal of making regulation of waters of the state (WOTS) uniform and will also eliminate some of the critical unanswered questions about how the Procedures will be implemented. Providing clear rules and definitions for the new program is necessary to promote consistency across regions, minimize workload for Water Board staff, streamline permitting and help the Water Boards comply with statutory time limits for permit decisions, and provide clarity and certainty for applicants.

Our comments focus on specific concerns and detailed solutions. Most notably, the proposed California-specific technical wetlands definition has been an extremely frustrating issue for the Coalition. As explained further below, there is no practical reason for a different technical definition of "wetland." California gains nothing and only creates confusion. The Coalition has yet to receive an answer from State Board staff why the existing federal framework is not adequate to address its concerns or why specific resources of concern cannot simply be identified in the proposal. Other serious concerns include the way wetlands are defined as

WOTS, the wetlands delineation procedures, the need to better define exclusions from the Procedures, the alternatives analysis requirement and other application requirements, and compensatory mitigation requirements.

We describe the necessary changes to the text of the Procedures below, and we have attached a redline of the Procedures with the edits that are necessary for the proposal to have a realistic chance to be implemented without causing significant impacts to the Coalition's members, the Water Boards, and the public. We tried to limit our redline edits to the extent possible. Additionally, the Coalition's prior comments, dated August 18, 2016, including all our arguments about the legal insufficiency of the Procedures, are incorporated herein by reference but are not repeated below.

As noted above, the Coalition was also very disappointed that the response to comments on the 2016 draft of the Procedures did not meaningfully address a number of our prior comments. The Coalition has spent significant time and resources to review the proposal and think of creative solutions to address the State Board's concerns while trying to avoid creating a regulatory program that cannot be implemented in the real world. We ask that the State Board carefully consider the Coalition's comments and redline suggestions and, if the State Board decides to not accept the Coalition's necessary changes, we ask that an explanation of why not be provided to the Coalition.

II. The Procedures, as written, will impose unnecessary burdens on the regulated community and on Water Board resources that are far greater than the State Board has recognized.

The Procedures establish a permitting program with new application procedures, new substantive standards, and new mitigation requirements that apply to all wetland and non-wetland waters of the state.[1] The new program will significantly overlap, and in some cases conflict, with permitting requirements for the federal Clean Water Act Section 404 permitting program and other state permitting programs including the California Department of Fish and Wildlife's streambed alteration program. The overlap and the unnecessarily broad scope of the Procedures will create confusion, duplicative regulation, additional workload for Water Board staff, and additional cost and delay for applicants, while exposing the state to significant new litigation costs and risks — burdens that far outweigh the limited purported benefits that staff asserts may be expected from imposing this additional layer of regulation on activities already subject to comprehensive federal and state oversight.

A. New Requirements in the Procedures will Increase Costs for Applicants and Water Board Staff.

Analysis of activities authorized under the Corps nationwide permit (NWP) program illustrates the increased costs and unnecessary regulatory burdens that the Procedures will impose, in particular by significantly increasing the number of detailed alternatives analyses

[1] We acknowledge that State Board staff maintain the Procedures do not constitute a new regulatory program. While the legal requirement to obtain a permit may not be "new," it will, in effect, be a new program for both the Water Boards and the public.

performed. Under the scope of existing state-wide activity, hundreds of detailed alternatives analyses, that would not otherwise by conducted, will be required. Based on information obtained from the Corps through a FOIA request, the Corps authorizes approximately 700 activities through NWPs in California each year, all of which would be subject to the new tiering requirements in the Procedures. NWPs are the most commonly used authorization under Section 404 of the Clean Water Act and are designed by the Corps to streamline project approvals subject to restrictions designed to have minimal impact on wetlands and, for any impacts that do occur, to provide compensatory mitigation. The NWP process has been in effect for over 40 years and has been shown to be a very effective program.[2] Although the District Engineer has discretion to require a standard individual permit — and thus a full alternatives analysis — for any activity that otherwise qualifies for a NWP, the 700 California projects actually permitted by the Corps using a NWP do not include instances where the District Engineer exercised this authority.

The Procedures require alternatives analyses for activities authorized under a NWP unless the Water Boards have certified the NWP under Clean Water Act Section 401, or the activity otherwise qualifies for an exception from the alternatives analysis requirement under the Procedures. However, the State Board has certified only 14 of the 52 current NWPs. Therefore, as a result of the Procedures, projects that rely on the remaining 38 would likely have to prepare an alternatives analysis under the tiered framework set forth in Section IV.A.1.g of the Procedures. While the proposed Tier 1 requirement is similar to that currently applied by the Corps to NWP (because it requires an affirmative statement describing how project impacts to water are avoided or minimized),[3] if the proposed Tier 2 or 3 procedures are applied, these permits would be subject to a new alternatives analysis requirement. Tier 3 projects (anything over 0.2 acre or more than 300 feet of fill under the Procedures as currently drafted) require a full on- and off-site alternatives analysis and Tier 2 projects (over 0.1 acre or more than 100 feet of fill) require on-site alternative analysis. This necessitates that applicants prepare detailed plans for various project layouts (usually 3-4), develop analyses of constructability and economic comparisons, and prepare extensive documentation on the environmental effects for each alternative. For Tier 3 projects, land surveys must be conducted on off-site parcels whether or not they are readily available to the applicant. While they can be effective in reducing impacts in large scale projects, for small fills less than 0.5 acres where project development has already minimized impacts, they are often merely paperwork exercises and do not result in significant project changes.

Based on the acreage impact limits associated with the tier (*i.e.*, > 0.1 acre), and utilizing the Corps FOIA data, there will be an average of 216 projects qualifying for NWPs annually that

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2 Copeland, C. 2012. The Army Corps of Engineers' Nationwide Permits Program: Issues and Regulatory Developments, Congressional Research Service.

3 More specifically, General Condition 23 for NWPs (Mitigation) requires the District Engineer to consider various factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal. One of these factors is a consideration that: (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (*i.e.*, on site). www.usace.army.mil/Portals/2/docs/civilworks/nwp/2017/nwp2017_general_conditions.pdf?ver=2017-04-27-084727-000.

will require a detailed alternatives analysis due to the Procedures. This represents a substantial amount (16%) of the 1,289 permit applications that the Board states it receives annually, and would ensnare 31% of the projects that qualify for streamlined permitting at the federal level through the NWP program.[4] This will add to costs for applicants as well as the time necessary to process 401 Water Quality Certifications for these activities.

Table 1. Number of NWP with greater than 0.1 acres of impact to "waters of the US" as issued by Districts in the State of California.

Nationwide Permits Issued in California between 2007-2016 with Impacts Greater Than or Equal to 0.1 Acre												
Corps District (within CA only)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	**Total**	**District Annual Average**
San Francisco							18	50	55	30	**153**	**38**
Sacramento	78	97	99	99	56	91	100	69	72	69	**830**	**83**
Los Angeles	88	134	86	116	158	86	45	55	85	98	**951**	**95**
Total	**166**	**231**	**185**	**215**	**214**	**177**	**163**	**174**	**212**	**197**	**1934**	**216**

In fact, this is likely a conservative estimate. The number of projects authorized by a NWP that will require an alternatives analysis due to the Procedures will likely be higher, as the linear-feet threshold for impacts requiring an alternatives analysis in the Procedures is 100 feet while most NWPs have a 300-foot limit. In addition, activities that impact certain specified habitats — including any "bog, fen, playa, seep wetland, vernal pool, headwater creek, eelgrass bed, anadromous fish habitat, or habitat for rare, threatened or endangered species" — will always require an alternatives analysis regardless of the amount of impact. As a result, the number of projects authorized by NWPs that nonetheless require an alternatives analysis if the State Board adopts the Procedures as written will likely be higher than 216 per year.

The Coalition looked into the additional costs associated with the application of the Procedures to all 401 water quality certifications (see Attachment 1). The additional costs come from the review of alternatives analyses (including those required for NWPs) as well as from procedures and requirements that would apply to all water quality certifications, such as the potential collection of wet-season data, additional mapping during the delineation process, and collection and mapping of data required for the Watershed Profile that is required as part of a mitigation plan under the Procedures. As summarized in Table 2 below, the additional costs are have an annual cost to applicants of over $47 million, adding up to $114,000 per project, and require an additional 16 full-time employees (FTE) at a minimum for the Water Boards to process. Additional personnel will be required to (i) review the alternatives analyses prepared for other activities authorized by the Corps under individual permits, (ii) review alternatives analyses under the Procedures for activities impacting only non-federal WOTS, (iii) verify delineations of non-federal WOTS, and (iv) review and consider climate change analyses and information included in watershed profiles. Ultimately, the full cost of application of the

[4] We acknowledge that the Procedures allow "the permitting authority to "determine[ ] that a lesser level of analysis is appropriate," so that, hypothetically, alternatives analysis may not be required for an activity that would fall into Tier 2 or 3. However, based on Coalition's experience, we doubt the permitting authorities will routinely exercise their discretion to "tier down" due to concerns over potential appeals and litigation. Indeed, most applicants would likely opt for the conservative approach of preparing an alternatives analysis just to avoid the possible loss of even more time from potential challenges.

Procedures will be considerably higher for applicants and the Water Boards than this estimate due to additional documents to be prepared in support of the program (*e.g.*, Watershed Plans), delays in permit processing, and contradictory policies applied by the State compared to the EPA and Corps.

Similar detailed comments were submitted to the State Board on the June 27, 2016 draft of the Procedures that raised specific concerns and quantified the costs for applicants and the Water Boards. This is a critical example of where State Board staff did not provide meaningful responses to comments explaining why the detailed comments like the ones above were wrong or, if they comment were correct, what additional resources and staff the Water Boards will receive to implement this new permitting program. For example, we find it hard to believe that if 16% (at a minimum) of the 1,289 permit applications that the Board states it receives annually now require a detailed alternatives analysis that there will be no requirement for additional Water Board staff and resources. It defies all experience with implementation of complex regulatory programs and common sense. The State Board must address the fact that this will in effect be a new permitting program, with new burdens on applicants and the Water Boards, and examine if the Water Boards have the capability to implement this new permitting program with existing resources. If Water Boards do not have such capability, as is shown by the above analysis, the economic consequences of adopting the Procedures, including delay to infrastructure and development projects statewide, could be substantial and the State Board has an obligation to examine and quantify those consequences prior to adopting its proposal.

Table 2. Additional Steps and Costs associated with Processing a 401 Certification under the Procedures.

Activity	Reference to Preliminary Draft Policy Section	Additional Actions Under Proposed policy	# Permit affected	Additional Applicant Cost	Percent of applications affected	Estimated additional RWQCB Staff time (day)	Estimated additional processing time (day)	Additional Training Required for Board staff
DELINEATION								
Corps Verification PJD								
	Page 6; Line 183-185	Additional wet season data	All	$ 20,000	10%	0.5	180	Yes
	Page 4; Line 119-120	Additional Mapping using State Wetland Definition	All	$ 5,000	25%	1		Yes
Subtotal				**$ 25,000**		**1.5**	**180**	
APPLICATION								
Corps PreConstruction Notification								
401 Water Quality Certification								
	Page 6; Line 186-188	Assessment of potential impacts due to climate change	All	$ 4,000	50%	0.5	30	Yes
	Page 5; Lines 141-155	Preparation of Alternatives Analysis for NWP						Yes
		Additional consultation on Alt Analysis by Board staff	NWP	$ 5,000	80%	1	30	Yes
		Alt Analysis required for non-certified NWP	NWP	$ 40,000	80%	4	60	Yes
		Alt Analysis approval by the Board staff	NWP	$ 8,000	80%	2	90	Yes
Subtotal				**$ 57,000**		**7.5**	**210**	
MITIGATION								
	Page 6; Line 205	Watershed Profile						
	Page 15 Line 512-528	Collection of field and mapping data	All	$ 7,500	75%	0.5	60	Yes
		Condition of aquatic resources in evaluation area	All	$ 10,000	75%	0.5	60	Yes
		Map and Report of aquatic resources in evaluation area	All	$ 15,000	75%	1	60	Yes
Subtotal				**$ 32,500**		**2**	**180**	
ANNUAL NUMBER OF 401 WQC FOR INDIVIDUAL AND NWP ISSUED IN STATE			**1289**	**$ 38,186,625**		**11**		
ANNUAL NUMBER OF NWP ISSUED IN STATE GREATER THAN 0.1 ACRE IMPACT			**216**	**$ 9,158,400**		**5**		
TOTALS				**$ 47,345,025**		**16**		

NOTES:

1. Table includes those tasks as outlined in the Preliminary Draft Procedures that require additional staff time beyond current expected permit procedures. Does not include time spent on training.
2. In some cases, Procedures will require additional work for all permit types; for Alteratives Analysis additional work only relates to NWP in each Tier level
3. Costs estimated from expected fees that may be necessary for project applicants to develop information for typical applications. Some costs may be considerably higher depending upon the Tier; others may be lower.
4. Percent of applications based on relative number of applications that would require these additional studies.
5. Estimated staff time based on expected time necessary to prepare for, review, comment on, and complete internal and external reporting on findings related to specific activity.
6. Estimated additional time required relates to work flow issues. Not all activities are cumulative; however, delays expected in some activities that would affect processing subsequent actions.
7. Training requirements based on additional instruction necessary for Board staff to understand new procedures. While this will take additional time and budget for the State Board, it was not included in the additional staff requirement
8. Additional costs are annual costs to applicants based on the number of permits issued by Corps Districts in the State and the estimated percent of those permits to which the activity would apply
9. Additional staffing is based on additional staff time and the percentage of permits to which that activity applies. Annual hours available to staff exclude holidays and vacation.
10. Not included in costs are time to deal with additional coordination with Corps over differing approaches, wetland determinations made solely by Board staff, preparation and approval of watershed plans, and review and approval of additional mitigation.

B. Delays and Conflicting Determinations will likely result in additional costs.

As noted above, an additional 16 FTEs at a minimum are estimated to be required just to process the 401 water quality certifications under the Procedures. If additional staff are not available, delays in processing water quality certifications and waste discharge requirements (WDRs) will result. The costs of delays to applicants — including public agencies such as Caltrans, Department of Water Resources High Speed Rail, and water and flood control districts — are significant and could halt projects altogether. Costs include carrying costs to retain property, increased costs to secure mitigation (including mitigation bank credits), and increased construction costs. These significant delays will only be more pronounced in the beginning of this new program, before Water Board staff have been adequately trained in wetland delineation, reviewing watershed profiles, conducting alternatives analyses, etc. Additional delays could result if Water Board staff need to devote time to supporting the legal defense of permitting decisions in litigation by environmental or labor opponents or project applicants, which will only further reduce the time available for processing new applications under the Procedures. Given the State's desire to improve our infrastructure using new taxes such as the gas tax, the public expectation for these improvements will be high, and delays will only result in additional costs without substantial benefits to the environment.

Additional costs and delays can also result from conflicting determinations that are likely under the Procedures. For example, as explained below, the proposed State Wetland Definition differs from the definition used by the Corps, which could result in the same feature being classified as a wetland by the Water Boards but as an "other water" by the Corps. This different classification will increase costs for project applicants performing delineations. The different classification could also result in different mitigation requirements from the two agencies for impacts to the same feature. Such conflicts over mitigation are not hypothetical. In a widely reported dispute, the Regional Board withdrew certification of a flood control project involving the improvements to Upper Berryessa Creek in San Jose and Milpitas. *See* Attachment 2. The Creek was built by farmers in the 1920s as a drainage ditch. It remains dry most years during the summer, and biological surveys found it supported no endangered species. The flood control work was federally funded, approved by Congress in 2014, and fully permitted, including a water quality certification from the Regional Board that was issued in March of 2016. However, in 2017, the Regional Board rescinded certification after it concluded that additional mitigation was needed beyond what the Corps and other agencies determined was sufficient — requiring 15 acres of wetlands or 15,000 linear feet of creek. The additional mitigation could cost millions of dollars, which could jeopardize the federal funding for a flood control project needed to protect hundreds of homes and to support the BART expansion into Santa Clara County. The Regional Board's action has been appealed and is currently before the State Board. More appeals like this example could result if the Procedures are implemented.

Another example of the delay caused by conflicting determinations was described by Santa Clara Valley Water District (SCVWD) at the State Board's hearing on September 6, 2017. SCVWD described its Permanente Creek Flood Permanente Protection Project. The application was submitted on September 23, 2013, and the Corps made a preliminary "LEDPA" determination on December 9, 2013. However, the Regional Board questioned the practicability of some alternatives and asked for additional alternatives. It did not reach a LEDPA determination until March 11, 2015, and did not issue 401 water quality certification until

December 8, 2015. Altogether, the Regional Board's second-guessing of the Corps' LEDPA determination resulted in 15 months of delay, during which time construction costs increased. There was no environmental benefit from the delay, as the Regional Board's LEDPA determination, when it was finally made, was the same as that made by the Corps. These are more than just isolated cases of delay without substantive environmental benefit. With the Procedures in their current form, we predict more delay to many more projects would result from implementation of the Procedures.

III. Recommended revisions to the current draft Procedures

A critical initial step is for the State Board to limit the application of the Procedures to "wetlands" and other "special aquatic sites" that are not waters of the U.S. Taking this step will decrease the burdens otherwise imposed by the proposal. Protecting these features was the State Board's stated goal in initiating development of its new regulatory program. Wetland waters of the U.S. are already subject to regulation under the Corps' Section 404 permitting program. Non-wetland features that might fall outside federal jurisdiction, such as some ephemeral streams, are already comprehensively regulated by the CDFW under the lake and streambed alteration program. This initial step can easily be enacted. The State Board can simply use the well-established federal wetland definition and limit the application of the Procedures to wetlands no longer regulated by the Corps as a result of the Supreme Court decisions in *SWANCC* and *Rapanos*.

The Coalition strongly opposes application of the Procedure to all WOTS. If the State Board, however, chooses to expand the scope of the Procedures to all WOTS as currently proposed, it is critical for the State Board to revise the Procedures so they make sense and can be reasonably implemented, to harmonize the Procedures with existing regulatory programs where they overlap, and to ensure consistency across the state in identifying waters of the State and in applying the Procedures.

Coalition members urge the State Board to revise the draft Procedures in five key areas to minimize conflict with existing regulatory programs and requirements:

- Keep the wetland definition and delineation procedures consistent with their federal counterparts under the Corps' Section 404 program;
- Harmonize the exclusions from the Procedures with federal law;
- Identify non-wetland WOTS subject to the Procedures and include guidance for determining the limits of such features that is consistent with Corps practice;
- Eliminate the requirement of an alternatives analysis for all discharges subject to streamlined permitting procedures under Corps-issued general permits; and
- Make the mitigation requirements and priorities of the Procedures consistent with the Corps' Mitigation Rule.

These revisions and the rationale for them are described in detail below, and a redlined version of the Coalition's preferred changes to the Procedures is included as Attachment 3.[5]

It is critical that the State Board phase in the effective date(s) of key provisions of the Procedures with greatest potential to conflict with the Corps' permitting program. State Board staff have stated that a memorandum of understanding (MOU) with the Corps will be necessary. These key provisions of the Procedures should only become effective *after* the State Board enters into this MOU with the Corps and provides a framework that reconciles this new state permitting program and existing federal permitting program.

A. Make the wetland definition and delineation procedures consistent with their federal counterparts under the Corps' Section 404 program.

The Coalition supports the decision to move away from case-by-case determinations of whether a potential wetland feature is subject to regulation by including in Section II a wetland definition and guidance for determining when a wetland is, or is not, a WOTS. But, by including a wetland definition and delineation procedures that are inconsistent with the Corps' wetland definition, the Procedures as currently written would create uncertainty, confusion, and conflict, for no apparent purpose.

The State Board has said that, in adopting the Procedures, it is attempting to fill the gap in federal jurisdiction over isolated wetlands that exists under the Supreme Court's *SWANCC* and *Rapanos* decisions. This gap is not created by the Corps' wetland definition; the gap exists because certain features that *already meet* the Corps' wetland definition are not sufficiently connected to the "traditional navigable waters" over which the Corps has statutory authority under the federal Clean Water Act to qualify as waters of the U.S. Filling the gap does not require adopting a different technical wetland definition; it only requires regulation of isolated features under state law.

To the extent the State Board desires to apply the Procedures to certain special aquatic features that may not qualify as "wetlands" under the Corps' definition, this still does not require adopting a different wetland definition. Even assuming the State Board accepts the Coalition's recommendation to defer regulation of non-wetland WOTS, the Board could simply amend the Procedures to enumerate those special aquatic features that will be subject to the Procedures even when they do not qualify as wetlands under the Corps definition and guidance. Identifying such features does not present any technical challenge; the federal 404(b)(1) Guidelines already enumerate "special aquatic sites" that receive additional protections, including not only wetlands but also mud flats, vegetated shallows, and other non-wetland features with special ecological values.

As many commenters noted on the 2016 version of the proposal, it would be far more straightforward to simply rely on the Corps definition to provide consistency in the wetland regulatory arena. After all, Governor Wilson's EO W-59-93 states that the agencies shall "develop a consistent regulatory wetlands definition for State agencies that improves the overall

[5] In some instances, the comments below include alternative revisions in the event the State Board declines to make the Coalition's preferred changes. These alternatives are not reflected in the redline but are described in the text below.

efficiency of the Federal-State permitting process." Similarly, the State Board previously concluded that the federal wetland definition was sufficient. Seeking a "standard metric," the State Board identified the adoption of "the federal regulatory definition" as a key step in its workplan for wetland protection. *See* Workplan: Filling the Gaps in Wetland Protection (September 2004), at 4. The State Board should adopt the Corps' wetland definition without change, and revise the delineation procedures accordingly to reflect that the same definition will be used to delineate wetland waters of the U.S. and non-federal wetland WOTS.

1. The State Wetland Definition is inconsistent with the Corps' definition.

As an initial matter, this particular issue has significantly frustrated our Coalition, and it illustrates the larger concerns we have with the proposal. There is no practical reason for a different technical definition of "wetland" between the federal and state regulatory program. California gains nothing and only creates confusion, which will likely lead to unintended consequences. If there are specific features that the State Board is concerned with that are not adequately addressed by the Corps Delineation Manual and the Arid West Supplement, those features can be specifically identified in the proposal as "wetlands" in California. If that suggested approach will not address staffs' concerns, why not? The State Board must obtain an answer from staff why that approach will not address whatever it is they are concerned will not be addressed in the proposal. We have not yet received an answer from staff and this is an absolutely critical issue.

Both the proposed State Wetland Definition and the Corps' wetland definition use a three-parameter test addressing hydrology, soils (or substrate), and vegetation. But there are foundational differences. The Corps' definition, which has been in place since 1977, states:

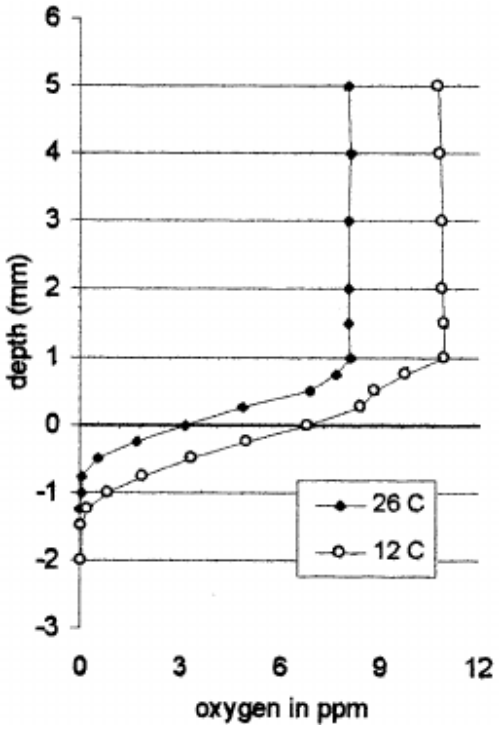
> Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

42 Fed.Reg. 37,122 (July 19, 1977). The proposed State Wetland Definition states:

> An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

There are subtle but meaningful differences in the soils and vegetation parameters that will lead to inconsistent outcomes in the application of the federal definition and the State Wetland Definition.

a. Soils/Substrate



The proposed State Wetland Definition relies on the presence of an anaerobic *substrate* rather than a *hydric soil*. Soils are particular to vegetated wetlands as they have formed in association with the presence of living organic matter. The Corps delineation manuals (1987 Manual and Supplements) rely on indicators that are only present in hydric soils.

Substrate, on the other hand, is not a scientific term, can apply to natural and artificial materials, and includes sediments at the bottom of streams and lakes. Pond bottoms, for example, can become anaerobic within a few millimeters below the surface (see Figure 1). This is also true for many streams, lakes, and other non-vegetated features. While the Procedures state they will follow the Corps' methodology that focuses on hydric soil indicators, the definition is inconsistent with that approach. One of the Board-appointed peer reviewers, Dr. John Jacob, noted that "while use of the term 'substrate' rather than 'soil' is not inconsistent with scientific understanding, it seems somewhat artificial to insist so strongly on avoiding the term soil." *See* California State Water Board Wetland Review, John S. Jacob, Ph.D. (July 9, 2011), *available at* www.waterboards.ca.gov/water_issues/programs/peer_review/docs/wetl_def_del/rev_jacob.pdf.

b. Vegetation

The differences in the vegetation parameter is even more significant. Unlike the Corps' definition, the State Wetland Definition allows any barren area that is inundated or saturated for 14 days to be considered a wetland. The Corps' three parameter wetland definition is uniform nationwide and has been tested scientifically and legally. The Regional Supplements, including the Arid West Manual, do not alter the Corps wetland definition. The entire purpose of the Supplements was to provide guidance on how to assure wetlands were properly identified in different climatic conditions, specifically like those in California.

The federal procedures under the Arid West Supplement captures most all wetland features in California, including those which are 95% bare ground. An area with as little as 5% vegetation cover can be a wetland, except in a few narrow difficult circumstances, such as extreme, persistent drought or human causes such as farming that have altered vegetation patterns, if it meets the other wetland parameters. In addition, features with less than 5% vegetation cover may still be regulated under the federal Clean Water Act as a water of the U.S., but they are not "wetlands."

c. Consequences of the Different Definition

The difference is not academic; the State Wetland Definition would recognize as wetlands many features that do not qualify as wetlands under the Corps' definition, based only on the presence of water (hydrology) and anaerobic substrate conditions. These conditions are met in a variety of non-wetland features that do not have vegetation as long as they have wetland hydrology (14 days of continuous inundation or saturation) and substrates that are anaerobic. This encompasses not only playas and mudflats but also ponds, lakes and streams, as shown in Figure 2. Each of these features in Figure 2 have sufficient inundation and are also likely to have saturated substrates. The Corps delineates such features as "non-wetland waters" whose boundaries are determined by the presence of an ordinary high water mark (OHWM) or high tide line (HTL).

Figure 2. Examples of unvegetated features with wetland hydrology and anaerobic substrate that would be determined to be "wetlands" under proposed state definition.

In their response to comments, State Board staff indicated they do not want to revise the proposed Technical Advisory Team definition because they will rely on Corps delineations and substantially on the Corps methodology, as set forth in Section III of the Procedures. However, the Section III of the Procedures states that the "[t]erms as defined in these Procedures shall be used if there is conflict with terms in the 1987 Manual and Supplements" and that "[t]he methods shall be modified only to allow for the fact that the lack of vegetation does not preclude the determination of such an area that meets the definition of wetland." The modification of the definitions that have been standardized in the Corps Manual and Supplements will only further cause further confusion, will not be enforced by the Corps, and, in some cases, are contrary to existing federal regulation and policy.

2. Use of inconsistent wetland definitions will cause conflict and confusion.

Section III of the Procedures instructs the permitting authority to rely on a wetland delineation with a Corps-issued preliminary jurisdictional determination (PJD) or approved jurisdictional determination (AJD) "for the purposes of determining the extent of wetland waters of the U.S." But Section III also states that a "delineation of non-federal wetland areas" must be performed using the definition in the Procedures. It is hard to overstate how this directive to delineate wetlands, using two different definitions, will cause significant confusion and conflict when applied in the field and could lead to differing regulatory outcomes.

Most projects involve discharges to waters of the U.S. as well as WOTS and will receive a PJD or AJD from the Corps – typically, a PJD. Under a PJD, any aquatic feature meeting the Corps' definition of a wetland will be assumed to be a water of the U.S. Aquatic features not meeting the Corps' wetland definition, including features that might be considered unvegetated wetlands under the Procedures, will be classified as non-wetland waters of the U.S. if they do not fit within a federal exemption (*e.g.*, certain ponds not considered waters of the U.S.).

In this situation, it is not necessary to perform a "delineation of non-federal wetland areas potentially impacted by the project" using the State Wetland Definition and guidance, as currently stated in Section III of the Procedures. An additional delineation is not necessary because there are no non-federal wetland areas that might escape regulation. Performing an additional delineation will only introduce confusion, as it may result in some unvegetated features that were classified as non-wetland waters under the Corps PJD being reclassified as wetlands under the state's delineation, which will likely result in different mitigation requirements under federal and state law for impacts to the same feature. Further practical difficulties would arise in defining the extent of the feature — when classified as a non-wetland water of the U.S., its boundaries would be determined by the ordinary high water mark, but as a "wetland" WOTS under the Procedures, its boundaries would be determined based on the extent of the "wetland" parameters: only 14 days of inundation and presence of anaerobic substrates.

For projects that receive an AJD, some features may be delineated as wetlands under the Corps' definition but may be determined to *not* be waters of the U.S. because, *e.g.*, they are "isolated." However, these "non-federal wetland areas" would still be identified in the delineation. There is no need to perform an *additional* delineation of these areas using a different wetland definition. Doing so would only create the same potential for confusion

described in the preceding paragraph. Instead, if the State Board seeks to regulate these wetlands, it need only specify that such wetlands are WOTS and that the Procedures apply to them — as it has already done in Section II of the Procedures (subject to the exclusions defined in Section IV.D).

For projects that have not received a PJD or AJD, because they lack aquatic features that potentially qualify as waters of the U.S., the State Board presumably intends to require a wetland delineation using the definition found in the Procedures. While this situation does not present the same potential for conflict with a federal JD, use of a different wetland definition is still unnecessary. In such a case, the federal definition will identify those features that meet the scientific definition of a wetland, and the Procedures will apply to them unless they are artificial wetlands defined as non-WOTS in Section II, or fall within one of the exclusions found in Section IV.D. Any unvegetated WOTS that are not delineated as wetlands will still be subject to regulation under the Procedures as currently written. However, if the State Board is concerned about ensuring that certain types of unvegetated features, such as mud flats or playas, do not escape regulation, it could amend the Procedures to explicitly state that the Procedures apply to these features.

The application of different wetland definitions has practical implications as well. Under both the Corps' 404(b)(1) Guidelines and the State Supplemental Dredge or Fill Guidelines, there is a rebuttable presumption that practicable alternatives are available for impacts to special aquatic sites, which include wetlands (as well as sanctuaries and refuges, mud flats, vegetated shallows, and riffle and pool complexes). No such presumption exists for impacts to jurisdictional waters that are not wetlands. As described above, an open water feature with no vegetation would likely be designated as a wetland under the State Wetland Definition but as an "other water" (*i.e.*, non-wetland) by the Corps. In the alternatives analysis, the Water Boards would be required to apply the presumption that practicable alternatives are available, but the Corps would not. This could lead to different outcomes.

In the September 6 hearing, staff appeared to be aware of this potential conflict, and while a clear proposal to address the issue was not presented, there was some discussion of deferring to the Corps' presumption, or absence thereof, in certain limited circumstances. Since it is not clear how staff intends to address this, we cannot fully evaluate this option, but this is another example of a problem that arises from the use of different definitions, requiring yet another special "fix." We ask that any "fix" proposed by the State Board be shared with the Coalition for review and comment before the State Board takes any final action.

Similar issues occur with mitigation. Both the federal Mitigation Rule and the State Supplemental Dredge or Fill Guidelines state "in-kind mitigation is preferable to out-of-kind mitigation because it is most likely to compensate for the functions and services lost at the impact site. … Thus, … the required compensatory mitigation shall be of a similar type to the affected aquatic resource." *See, e.g.*, State Supplemental Dredge or Fill Guidelines § 230.93(e). Out-of-kind mitigation is allowed if deemed appropriate under the watershed approach, but generally requires higher mitigation ratios to offset the difference in functions and services. *Id.* Thus, a feature classified as a wetland by the Water Board and an "other water" by the Corps would likely need to provide additional mitigation to satisfy each of the agencies' compensatory mitigation requirements.

Because a separate wetland definition is not needed and would lead to conflicting regulatory outcomes, the State Board should revise Section II of the Procedures to adopt the Corps' wetland definition, including the Arid West Manual, without change and to eliminate reference to a separate wetland delineation in Section III. If it does not do so, then, at a minimum, the State Board must revise Section III of the Procedures to provide that a separate wetland delineation using the definition in the Procedures is required only when the Corps has not issued a PJD or AJD.

3. Tailor the jurisdictional framework to minimize unnecessary burdens.

Section II of the Procedures includes a "framework" for determining whether a feature that meets the technical definition of a wetlands will be considered WOTS, and identifies certain artificial wetlands that generally will not be considered WOTS (even when they exceed one acre, which is an important clarification that should be retained). The framework includes certain exclusions, which the Coalition supports. As explained below, the list of exclusions must be revised and supplemented to harmonize the Procedures with federal law and to minimize unnecessary burdens on the regulated community. The revised and additional exclusions are noted in the Coalition's redline version of the Procedures (Attachment 3). If the State Board declines to exclude these features from the framework defining WOTS (as described in this Section II.A.3 and in Section II.B1, below), then the features should be excluded from the application of the Procedures (as described below in Section II.C) or, at a minimum, should not be subject to the alternatives analysis requirement (as explained below in Section II.D). Additionally, the burden must not fall on the applicant to demonstrate that a feature is not a WOTS. However, if the State Board places the burden of proof on the applicant, it must clarify that in any Water Board enforcement action for a violation of the Porter-Cologne Water Quality Control Act, the burden to demonstrate an aquatic feature is a WOTS remains with the Water Boards.

a. Exclude features excluded by the Corps.

First, the Procedures must recognize as not WOTS the same class of features that are recognized as not waters of the U.S. in Corps regulations and guidance. This includes prior converted cropland, which the Corps' regulations provide are not a water of the United States. 33 C.F.R. § 328.3(8). (By contrast, the Procedures merely provide an exclusion for application of the Procedures but reserve the right to issue WDRs, etc.) It also includes the features identified in the preamble to the 1986 waters of the U.S. rulemaking:

- Ditches dug on dry land that do not drain wetlands such as roadside ditches and ditches to reduce stormwater flooding around residential and industrial areas.
- Artificially irrigated areas that would revert to dry land should application of water to that area cease;
- Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;[6]

[6] In addition to perpetuating this exemption, the State Board policy should also clarify that this nonexclusive list of excluded artificial ponds constructed in dry land should include lakes and ponds

- Artificial reflecting pools or swimming pools created in dry land;
- Small ornamental waters created in dry land;
- Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
- Erosional features, including gullies and rills.

Examples of features excluded under federal law are shown in Figure 3. This is good policy. In an era of limited resources, it makes little sense to regulate features that are often small in size or temporary in nature and generally recognized as not providing substantial functions and values.

Figure 3. Federal exemptions that should be applied to state policy include ponds constructed on uplands, erosion gullies and rills, ornamental ponds, and construction related depressions.

created for recreational or visual amenity purposes and lakes and ponds that are maintained for commercial, as well as industrial, purposes. Furthermore, there should be no size limitation to these features as is currently being considered. The regulation should not provide disincentives to economic activity by establishing that man-made aspects of commercial enterprises can forever impair future uses of the property

b. Eliminate the recapture of artificial wetlands resulting from historic human activity and that have become relatively permanent parts of the natural landscape.

The State Board also must eliminate the category of artificial wetlands in Section II.4.c of the Procedures that "[r]esulted from historic human activity and has become a relatively permanent part of the natural landscape." This definition is unclear and could apply to virtually any artificial wetland, since all artificial wetlands, by definition, "resulted from historic human activity," and virtually all could be considered "relatively permanent" if they have existed long enough to create anaerobic substrate. As written, the category threatens to swallow the exclusions in Section 4.d. For instance, a stormwater detention basin in long use could result from historic human activity, be relatively permanent, and exist as part of a natural landscape. If the State Board wishes to retain this category it must specifically define what is meant by "historic human activity," "relatively permanent" and "natural landscape." This change is needed to retain exemptions consistent with those recognized under federal law and to provide the public with a clear understanding of which features would be subject to regulation. It is also needed to ensure that the Procedures are consistent with staff's representation at the September 6, 2017 hearing, where it was explained that this category of waters was intended to capture only areas "that have been abandoned and have developed wetland features." The Procedures provide no guidance on what "abandoned" means and in many cases, projects subject to lengthy environmental or development review may not have had physical activity for many years, but have not been abandoned from consideration for development by their owners.

The staff report in support of the Procedures further noted, by way of example, that "[t]he jurisdictional framework is intended to exclude artificially-created, temporary features, such as tire ruts or other transient depressions caused by human activity from regulation, while still capturing smaller, naturally-occurring features, such as seasonal wetlands and small vernal pools and yet may be outside of federal jurisdiction." Because one of the purposes of the Procedures is to clarify what is, and what is not, regulated, the Procedures themselves should include language that recognizes that transient depressions can be restored as part of routine site maintenance and without requiring owners and operators to retain such conditions that might otherwise develop into wetlands if abandoned. More specifically, Section II.4.c should define regulated artificial wetlands to include a wetland that "Resulted from historic human activity and has become a relatively permanent part of the natural landscape after being restored or the land use which created the artificial wetland / water is no longer occurring" We also believe the following should be excluded: depressions where wetland / non-wetland waters occur in uplands that are caused by livestock, or wildlife; soil; settlement on constructed land surfaces; and recreational activities unless the land use which created the artificial wetland / water.

c. Eliminate the reliance on historic definitions of waters of the U.S.

Certain provisions in Section II should be revised to avoid reliance on federal regulations, case law or JDs that may be outdated or unlawful. The Procedures provide that all wetlands meeting "current or historic definitions of 'waters of the United States'" are WOTS. A footnote explains that this includes features determined to be waters of the U.S. in an AJD or a PJD on which a permitting decision was based; and features consistent with "any current or historic final

judicial interpretation of 'waters of the U.S.' or any current or historic federal regulation defining 'waters of the U.S.'" This criterion is problematic for three reasons.

First, determining jurisdictional status based on PJDs is improper and directly conflicts with the scope and intent of the Corps regulatory program. This is because the fact that a PJD was used as the basis for a prior permitting decision does not necessarily mean that every feature identified in the PJD meets jurisdictional criteria under current normal conditions. In addition, the applicant may not have had an incentive to contest the jurisdictional status of a feature when seeking a prior permit because, for instance, no discharge to the feature in question was proposed.

Second, the reliance on "historic definitions" creates confusion because it is not clear which historic definitions are included and which may be developed in the future. Board staff would need substantial guidance as to how to apply historic definitions and manuals and without reference to such decisions, the public will be confused as to which may apply. For example, the wetland definition used by the Corps has remained consistent since the 1977. The Corps Wetland Manual as issued in 1987 has been augmented with the 2008 Arid West Supplement; however, there was also a manual issued in 1989 by the EPA and Corps entitled the "Federal Manual for Identification and Delineating Jurisdictional Wetlands: An Interagency Cooperative Publication." It was implemented for a period of time but was discontinued in 1992. It would be confusing to the public to introduce a manual that is no longer used and not generally available. Similarly, it is unclear if the Clean Water Rule, 80 Fed.Reg. 37054 (June 29, 2015), would apply. The rule was issued by the Corps and EPA in 2015 but was immediately challenged. It never went into effect in certain parts of the country and was ultimately stayed nationwide pending resolution of consolidated litigation. The administration is now taking steps to rescind the rule. 82 Fed. Reg. 34899 (July 27, 2017). Given its contested background and the fact that it never fully went into effect, it is unclear if this rule would — or should — be deemed to apply (or how much stock regulators should place in representations that, in many instances, the rule only codified existing practices).

Finally, when a potential buyer of a given parcel of real property is doing their due diligence, they rightly rely on the rules and regulations in place at the time of acquisition to appropriately gauge the regulatory implications for their prospective use of that property. A prior JD may or may not be readily available in the public record regarding the property. An acquirer that made an appropriately thorough due diligence review related to current laws and regulations should not be subject to the risk of later being held to a determination on jurisdiction that is now inconsistent with law and that could not have been readily found in the exercise of reasonable diligence.

Reliance on historic definitions of waters of the U.S. must be removed to avoid current and future confusion as to what manuals or definitions are applied. PJDs should be relied on only if requested by an applicant.

d. Add exclusions for industrial and agricultural containment features and actions for maintenance of facilities covered by existing Orders.

Because the state definition as proposed excludes vegetation, the framework must exclude industrial and agricultural ponds and features that are designed to avoid discharge of pollutants to state waters. Such features include oil containment basins around storage tanks, process water storage from oil extraction, animal waste storage ponds, and other industrial or agricultural process water storage (Figure 4). These features should be excluded from WOTS for purposes of the Procedures, whether or not they are deemed "wetlands" under the state's new definition. Leaving it to the individual Water Boards to make these decisions is likely to lead to inconsistency and substantially increase uncertainty and cost (because the features would need to be delineated and a resolution of their jurisdictional status worked out on a case-by-case basis) for the regulated community without any concomitant benefit.

Figure 4. Examples of non-vegetated areas including, oil tank containment berms, water for ethanol production, produced water storage ponds, and ditches dug on uplands. Such features should be excluded from jurisdiction as WOTS.

In addition, these facilities are usually regulated under existing Water Board Orders. Compliance with the Procedures could conflict with the requirements of the existing Orders. Projects in this category of exceptions would also include regulated remediation or post-closure maintenance measures, such as maintenance of landfill caps, that are likewise subject to site-specific Orders that require elimination of depressions and management of settling impacts, etc. as part of the maintenance obligations. Including an exception for maintenance of facilities

covered or required by an existing general or individual Order would address this potential for inconsistency.

Finally, actions involving ground disturbance specifically required to comply with nuisance and abatement orders issued by a fire department, mosquito abatement districts, or similar authority should be exempt from the requirements to secure WDRs for WOTS. As noted repeatedly in these comments, the review contemplated under the Procedures is time consuming and, if applied to nuisance and abatement actions, would make timely compliance with the orders impossible.

e. Add active remediation sites subject to Water Board control.

Active remediation sites subject to Water Board or other local, state, or federal regulatory oversight and/or control should also be excluded. For example, in Santa Barbara County, many oil facilities, including storage tanks are being removed. The process of abandonment, characterization, remediation, and monitoring take many years and during that time, water must be retained on site to avoid discharge of pollutants off-site. This is not an unusual situation for remediation projects and in some cases may go on for a decade or longer. However, such features may be considered "waters of the State" as they pond water and may have saturated substrates (Figure 5). These features do not necessarily fall under the proposed exemptions for wastewater treatment or for stormwater retention. Remediation sites under the control of Board must be included as an exclusion.

Figure 5. Former tank site with containment area at the Gaviota Terminal in Santa Barbara County during site remediation.

f. Clarify that the exclusion for active surface mining covers reclamation activities.

The Coalition supports the exclusion in the framework for artificial features that develop in areas subject to active surface mining. However, adding a definition for "active surface mining" will provide clarity and ensure that sites undergoing reclamation as required by the California Surface Mining and Reclamation Act of 1975 (SMARA) are covered by the exclusion as well as sites where extraction of resources is underway.

g. Add exclusions for multi-benefit facilities.

Section II.4.d of the Procedures also should exclude from WOTS all artificial (*i.e.*, constructed) multi-benefit water quality treatment and supply facilities. These features provide water conveyance, storage and/or treatment functions while utilizing or providing wetland or riparian habitat and related environmental benefits. Currently, Section II.4.d of the Procedures excludes features used for stormwater detention, infiltration or treatment, but does not address features used for water conveyance or storage. In addition, the current version of Section II would "recapture" as wetland WOTS any artificial feature that has become a "relatively permanent part of the natural landscape." As stated above, this provision is vague and overbroad and should be deleted. In the present context, it could be interpreted to apply to many constructed features that are managed for multiple benefits, precisely because they provide "natural" functions and services such as wetland and/or riparian habitat or habitat to sensitive species.

Municipalities, water districts, water agencies, and other public and private entities that successfully manage artificial features to provide additional benefits beyond their important role as infrastructure should not be penalized for doing so. As water agency representatives testified at the State Board's September 6, 2017 hearing, subjecting constructed multi-benefit facilities to regulation as WOTS would increase costs and delay construction, operation and maintenance of these facilities. It would be inconsistent with state water supply and water quality policies that encourage use of multi-benefit treatment facilities that integrate natural wetland based treatment processes, including the State Board's Storm Water Strategy (January 6, 2016) and the California Department of Water Resources' Urban Stormwater Runoff Management Strategy (July 29, 2016), and with the California Water Action Plan, which calls for an "all of the above" approach to water management.

As explained below, these multi-benefit facilities also should be excluded from WOTS for purposes of the Procedures to the extent they are deemed non-wetland features. For both wetland and non-wetland facilities, if the State Board does not revise the jurisdictional framework to exclude these facilities as WOTS, it is essential to include an exclusion for operation and maintenance of such facilities in Section IV.D of the Procedures.

h. Add exclusion for other water supply facilities.

The Procedures as drafted contain no exemption for water supply facilities, including groundwater recharge ponds and conveyance facilities. Recharge ponds inundated through regular operations require maintenance that would be burdened by implementation of the Procedures, which provides obstacles to meeting the Sustainable Groundwater Management Act's (SGMA) groundwater sub-basin objectives.

Raw water conveyance systems of all sizes tend to have operational inefficiencies. The long-term leaks have created areas that may meet the State Wetland Definition of wetlands and could be found to be waters of the state unless such features are excluded. In response to the recent drought and encouraged by directives from the State Board, projects to "tighten up" the system and reduce leaks are in various stages of planning. Undertaking these projects to reduce leaks would be delayed and would be more costly due to additional application requirements and

mitigation if the areas are deemed to be WOTS subject to the Procedures. These features must be excluded from the definition of WOTS.

B. Clearly define the scope of non-wetland waters subject to the Procedures and how to delineate them.

The current draft Procedures state that the Procedures apply to all wetland and non-wetland WOTS. But, while the Procedures include a wetland definition and delineation guidance, and exempt certain wetland features from the Procedures, they contain no analogous provisions dealing with non-wetland waters. They do not identify any specific non-wetland features subject to the Procedures or define any exemptions for non-wetland waters — consistent with federal law or otherwise — and they do not include any guidance for identifying the limits of non-wetland WOTS. These omissions demonstrate that the State Board staff have not given adequate consideration to the regulation of non-wetland WOTS to justify such a sweeping expansion of the Procedures beyond the State Board's original focus on wetlands. Indeed, in Resolution 2008-0026, the State Board directed staff to "establish a Policy to protect wetlands from dredge and fill activities" as the first phase of a three-phased policy; non-wetland waters were not included in that first state. The Procedures, in applying to non-wetland WOTS, go beyond what staff was originally directed to do.

1. Identify non-wetland features that are not considered WOTS for purposes of the Procedures.

If the State Board nevertheless decides to apply the Procedures to non-wetland waters of the state, the Procedures must include a list of non-wetland features that the State Board intends to regulate as WOTS similar to the jurisdictional framework for wetlands in Section II of the Procedures. The list should exclude those non-wetland features that are not considered waters of the U.S. under Corps regulations and guidance, including ornamental waters, artificial lakes and ponds (including golf course ponds), treatment ponds and other waste treatment systems, certain ditches, water-filled depressions from construction and mining, etc. *See* Section II.A.3.a, above. Likewise, the list should exclude industrial and agricultural containment features, facilities that are regulated under existing Water Board Orders, and constructed multi-benefit facilities for water supply or water quality treatment, to the extent these are deemed non-wetland features. *See* Section II.A.3.d-e, above. As explained in footnote 6, the list should also exclude lakes and ponds created as part of a commercial enterprise for recreational use or as a visual amenity.

The need to identify non-wetland features that are, and are not, subject to regulation under the Procedures is particularly acute given the lack of any statutory or regulatory definition of WOTS and the Regional Boards' extremely broad, yet inconsistent, views, of what features qualify as WOTS. Coalition members have experienced Regional Board staff taking the position that tire ruts, puddles, erosion rills, depressional areas created by livestock or wildlife, and walking or vehicle paths created in uplands; drainage swales without a presence of wetlands or ordinary high water mark, ditches constructed in uplands, ornamental ponds and lakes constructed in uplands, industrial waste treatment ponds (lined or unlined), upland floodplains, and similar features are WOTS subject to regulation. Regardless of whether these features meet the broad statutory definition of WOTS, they should not be regulated under the Procedures. Establishing clear limits on the application of the Procedures to non-wetland WOTS will avoid

absurd results, limit the uncertainty of case-by-case determinations and the potential for inconsistency among regions, and help set reasonable bounds on staff discretion.

2. Adopt federal guidance for determining the limits of non-wetland waters.

Equally critical, the Procedures should adopt guidance for identifying the limits of non-wetland waters that is consistent with federal guidance and practice under the Corps' Section 404 permitting program. This means, for example, that the lateral limits of non-wetland, non-tidal features such as streams and lakes are defined by the ordinary high water mark or high tide line, as defined in the Corps' regulations. *See* 33 C.F.R. § 328.4(c) (2012) (limits of jurisdiction); 33 C.F.R. § 328.3(e) (2012) (defining "ordinary high water mark"). The Procedures should include the most recent manuals that are available from the Corps on determination of OHWM:

> US Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TR-08-12.
>
> US Army Corps of Engineers. 2014. A guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valley, and Coastal Region of the United States. ERDC/CREEL TR-14-13.
>
> Regulatory Guidance Letter 05-05. Ordinary High Water Mark Identification. December 7, 2005.

With this additional guidance, applicants and the Water Boards will have clear procedures on how boundaries will be determined when vegetation is not present. Otherwise, there could be considerable inconsistencies between the Water Boards and there will be conflict between Corps permit processing and that of the Water Boards.

Recent experience with state regulators has shown that adopting clear guidance on this issue is essential. For example, field staff at the California Department of Fish and Wildlife recently have begun to assert that the Department's jurisdiction under the lake and streambed alteration program may, on a case-by-case basis, extend beyond the "bed, channel, or bank" of streams and lakes, as provided in Fish and Game Code section 1602, to include adjacent wetlands, upland floodplains, and even entire upland valleys. The unpredictable, ad hoc nature of these claims, which vary from region to region and from project to project, has caused major delay, expense and uncertainty for landowners, leading to conflict between the regulated community and the Department, the possibility of litigation, and efforts to amend state law to clarify the Department's authority. This experience perfectly illustrates the dangers of failing to define the scope of the Regional Boards' jurisdiction under the Procedures.

If the State Board does not address these issues before adopting the Procedures, application of the Procedures to non-wetland WOTS must be postponed until the State Board has considered the issues and amended the Procedures, or adopted regulations, to clarify the intended scope of this new regulatory program for non-wetland waters.

C. Harmonize the exclusions from the Procedures with federal and state law.

Section IV.D of the Procedures excludes from the Procedures discharges to certain WOTS, and discharges to any WOTS that result from certain activities. It appears the State Board intended for these exclusions to be consistent with exemptions that exist under the CWA and Corps regulations, as the Procedures exclude discharges from activities that are exempt under CWA § 404(f), discharges to prior converted cropland, and discharges associated with routine maintenance of certain storm water facilities. However, the prior converted cropland exclusion requires revision to be consistent with federal law and include crops that do not require regular tilling of the soil. In addition, the exclusion for maintenance of storm water facilities covers only those facilities already regulated under another water board order, and must be extended to all constructed, multi-benefit water quality and water supply facilities. Finally, the Procedures should explicitly exclude from the Procedures all activities authorized under a streambed alteration agreements issued by the California Department of Fish and Wildlife or under a general order. While as noted in Section II.A.3 above, the Coalition's strong preference is to exclude features from the definition of WOTS, to the extent that the State Board declines to do so, the following exclusions must be added to Section IV.D of the Procedures.

1. Prior converted cropland

As noted above, prior converted cropland are excluded from federal jurisdiction, and the Coalition urges the State Board to similarly exclude prior converted cropland from wetland and non-wetland WOTS subject to regulation under the Procedures. In the alternative, the Coalition believes the exclusion in Section IV.D.2.a needs to be made consistent with the federal exemption. While this appears to have been the intent, the Procedures include conditions and definitions for this exclusion that would deny the exclusion to certain types of cropland that are eligible for the exclusion under federal law.

Under the Procedures, a wetland area must have been certified as prior converted cropland by the Natural Resources Conservation Service in order to be excluded from the Procedures. However, the Procedures state that the exclusion will no longer apply if the prior converted cropland is (i) changed to non-agricultural use or (ii) is "abandoned" — *i.e.*, is not planted with an agricultural commodity for more than five consecutive years and wetland characteristics return. The Procedures further define "agricultural commodity" as "any crop planted and produced by annual tilling of the soil…." The "abandonment" provision would deny application of the prior converted cropland exclusion to cropland that is not tilled annually, such as vineyards and orchards. These croplands would be deemed "abandoned" five years after conversion to vineyard or orchard use.

There is no policy reason, and no stated rationale, for denying these croplands the exclusion, and doing so is inconsistent with federal practice. The concept of abandonment is not found in the 2005 joint guidance issued by the Corps and the Natural Resources Conservation Service, which the Procedures refer to. In addition, the Procedures' definition of "agricultural commodity" is identical to that used in the 2005 joint guidance, but the guidance does not use the term in any similar way.

The State Board must correct this inconsistency by revising the Procedures to state that prior converted cropland will be deemed abandoned if it is not "planted to an agricultural crop for more than five consecutive years…" and by deleting the definition of agricultural commodity, which is not needed. The term "planted" must include cropping, management, or maintenance activities related to agricultural productions, per RGL 90-07.

2. Discharges associated with operation and maintenance of constructed multi-benefit facilities or other water supply facilities

The Procedures contain a limited exclusion for discharges "associated with routine maintenance of storm water facilities regulated under another Water Board order, such as sedimentation/storm water detention basins." While this exclusion is good policy, it should be extended to routine operations and maintenance of any constructed, multi-benefit water supply or water quality facilities and to other water supply facilities, for the reasons explained in Sections II.A.3.g and h of these comments, to the extent such facilities are not excluded from the framework of features that are regulated as wetland and non-wetland WOTS under the Procedures.

3. Discharges authorized by streambed alteration agreements

The California Fish and Game Code authorizes the California Department of Fish and Wildlife to regulate activities affecting the bed, channel or bank of any river, stream or lake by issuing streambed alteration agreements. Cal. Fish and Game Code § 1602(a). The Department interprets its jurisdiction broadly, as discussed above, and conditions such agreements to protect water quality, fish and wildlife resources, and other aquatic functions and resources. While the Fish and Game Code does not authorize the Department to regulate wetlands and certain other features that would be subject to the Procedures, there is no need for the Procedures to duplicate the regulation of non-wetland features that are subject to the Department's authority.

Section IV.D of the Procedures should include an exclusion for any discharge to WOTS authorized by a streambed alteration agreement. In the event that an activity obtains a streambed alteration agreement but also involves a discharge to WOTS that are not covered by the agreement, the Procedures should apply only to that discharge.

4. Discharges authorized by general orders

Section IV.C of the Procedures addresses the issuance of general orders and states that "[a]pplicants applying to enroll under a general order shall follow the instructions specified in the general order for obtaining coverage." We understand the intent is *not* to require applicants seeking coverage under a general permit for dredge or fill discharges to comply with the Procedures. Additional text must be added to Section IV.C of the Procedures and to the exclusions in Section IV.D to remove any uncertainty regarding the potential application of the Procedures for activities seeking to enroll under a general order.

D. The Alternatives Analysis requirement must be revised to be consistent with federal requirements and avoid conflicting LEDPA determinations.

The "tiers" in the current draft of the Procedures do not reduce the burdens created by the alternative analysis requirement because the thresholds are so low that even small projects are likely to trigger a full alternatives analysis. Coalition members and their constituents can attest that preparation of an alternative analysis is no small task and often requires applicants to work with biologists, engineers, economists, and attorneys to identify, design, and evaluate a range of on- and off-site alternatives.

Under the Procedures, a full alternatives analysis could be required for projects that qualify for NWPs, effectively undermining the Corps' streamlined permitting process. As described above, the FOIA data from the Corps indicates that, on average, over 200 projects each year would be required to prepare an alternatives analysis—just for purposes of Water Board review. As any impacts to specified habitats move a project into Tier 3 the number of projects would likely be higher.

All discharges subject to streamlined permitting procedures under Corps-issued general permits must be exempt from the alternatives analysis requirement of the Procedures. This includes not just those projects that qualify for NWPs that have been certified in advance. Section A.1(g)(i) of the Procedures (exempting a project from the alternatives analysis requirement) should apply to all discharges that meet the terms and conditions of one or more Corps General Permits, not just (i) those that include discharges to waters of the state outside federal jurisdiction or (ii) those certified by the Water Board. Certification of the general permit is not a necessary precondition here because the Procedures will ensure that the individual discharge complies with water quality standards, which is what certification ensures. At a minimum, quantity thresholds in the Tiers should be aligned with limits in NWPs — generally 0.5 acre and 300 linear feet, which is consistent with the State Board staff's goal to align the Procedures with federal requirements.

The exemption for Watershed Plans must be revised to remove the requirement that plans include provisions for monitoring and mitigation, as these features have no bearing on avoidance and minimizations of impacts, which is the purpose of an alternatives analysis.

Operation and maintenance of existing publicly owned infrastructure must be included in the list of activities exempt from alternatives analysis requirement. The rationale for the exemption is similar to the justification to exempt "Ecological Restoration and Enhancement Projects." Water quality and beneficial uses in WOTS will be adversely impacted if the infrastructure does not perform its function. For example, flooding of urban or agricultural areas due to inadequately functioning flood protection facilities will likely result in contaminated water and detritus making their way back to waters of the state. Similar impacts can result in blocked outfalls or failed water or sewer lines. Failed bridges or roadways will typically result in the deposition of vehicles and detritus depositing into WOTS. In short, the state's water quality and beneficial use objectives are not served if infrastructure is not operated and maintained as designed.

To the extent that the Procedures are not revised to exclude certain features as WOTS (Sections II.A.3 and II.B.1, above) or to exempt certain areas or activities from regulation (Section II.C, above), those features or activities must be exempt from the alternatives analysis to avoid unnecessary cost and delay with little or no environmental benefit.

We also recommend that the quantity limits for activities that qualify for Tier 2 should be removed so that projects of any size that cannot be located in alternate locations require only on-site alternatives (unless they meet the Tier 1 size requirements).

As noted above, the Coalition is concerned about the potential for conflicting LEDPA determinations by the Corps and Water Boards. This concern is heightened by the potential for conflicting wetland determinations and the presumptions that those determinations would trigger. The Coalition supports the inclusion of deferral provisions in Section IV.B.3.b of the current draft of the Procedures, particularly the requirement that concerns about the adequacy of an alternatives analysis must be expressed in writing by the Executive Officer or Executive Director to the Corps. However, it does not go far enough. For example, Water Boards should not be able to second guess Corps alternatives analyses if they did not participate in the process at the time the Corps is conducting its analysis. Section IV.B.3.b.1 should be written to say that Water Boards will defer to the Corps unless the Corps actively denies the Water Boards' participation. The current language — "not provided an adequate opportunity to collaborate" — gives the Water Boards the discretion to question the Corps alternatives analyses based on subjective determinations of communications with the Corps.

Further, the process for coordination between the Corps and Water Boards is still undefined. In stakeholder meetings, staff have discussed entering into an MOU with the Corps. The Coalition thinks an MOU is necessary to ensure coordination between the agencies and avoid potential conflict, such as those described above in Section I.B. We strongly believe the MOU should set forth a clear process for coordination, with deadlines and consequences for failing to meet those deadlines similar to those set forth in the Permit Streamlining Act. If as staff have declared, there will be no additional burden on the Water Boards from the Procedures, there should be no concern with establishing mandatory deadlines and consequences for failing to meet those deadlines. Deferral to the Corps' LEDPA determination until the MOU is in effect is necessary to reduce the potential for conflict.

E. The Procedures must require deferral to Corps mitigation for impacts to federal WOTS and must not penalize projects that cannot mitigate in accordance with a Watershed Plan.

The Procedures call for deference to the Corps' alternatives analysis, at least in certain circumstances, but they do not similarly require deferral to the Corps' mitigation requirements. The Procedures must defer to the Corps' mitigation requirements. This is a concern because the Water Boards currently have mitigation preferences that may conflict with the Corps' preferences — *e.g.*, the Boards prefer in-watershed mitigation while the Corps prefers mitigation banks and in-lieu fee programs whose service areas may not correspond to watershed boundaries used by the Water Boards. It also presents the opportunity for the Water Boards to require different or additional mitigation for impacts, which could happen if the Corps and Water Board classify the type of impacted aquatic resources differently because of the different wetland

definitions. The potential for conflicting determinations and the consequences were highlighted above in Section I.B. The Procedures should require Water Boards to defer to the Corps' determinations as to the type, location, amount and term of mitigation for all impacts to waters of the United States and should not require duplicate financial securities if one has been provided to other agencies.

The Procedures generally incorporate the federal Mitigation Rule, 73 Fed.Reg. 19594 (Apr. 10, 2008), amending 33 CFR Parts 325 and 332 and 40 CFR Part 230, as part of the State Supplemental Dredge or Fill Guidelines. However, Section III.B and V of the Procedures introduce terms that are not used in the federal mitigation rule: "Project Evaluation Area" and "Watershed Profile." Both terms are problematic because they have definitions that are open to interpretation. We recommend that the term "Project Evaluation Area" be deleted. It is vague and unnecessary, and the concept can be folded into the definition of "Watershed Profile." We understand the intent of the Watershed Profile is to capture information that would generally be required under the federal Mitigation Rule (*e.g.*, 33 CFR § 332.3(c)(3)) but may be unavailable to or unattainable by applicants. The definition of the term in Section V of the Procedures is vague and open-ended, and includes data sources that go far beyond what is required in the federal Mitigation Rule and, to the extent it seeks information on defining watershed goals, what is required to evaluate mitigation proposals. At a minimum, the definition must be revised to conform to the information listed in the federal Mitigation Rule, that flexibility be provided as to the level of detail required in a watershed profile, and that the requirement for field data within the watershed be deleted.

Additionally, the Procedures provide different "strategies" for determining the amount of mitigation required, with a lesser amount required for mitigation that is to be performed pursuant to a Watershed Plan. The Coalition understands that the intent of this "preference" is to encourage the creation of Watershed Plan, but we remain deeply concerned that this provision will instead be used to justify ratcheting up the amount of mitigation required for mitigation plans that are not prepared pursuant to a Watershed Plan. This is particularly troubling because there are currently no Board approved Watershed Plans that meet the criteria set for in the Procedures. Accordingly, this preference and the different mitigation strategies must be deleted. If they are retained, it must be revised so that it does not become effective unless and until there is an approved Watershed Plan for the area where the project is located.

F. Other application requirements

The Procedures continue to require information on a case-by-case basis for applications. This creates many problems, as outlined in the Coalition's comments from last year. The requirement for information on climate change illustrates the problems with the case-by-case approach.[7] It is unclear what the Water Boards' authority or purpose for the climate change requirement is, and the case-by-case nature of the requirement will provide an excuse to deem applications incomplete and lead to uncertainty, delay and frustration. It also undermines the

[7] In addition, the Procedures suffer from other case-by-case determinations — whether to defer to the Corps' LEDPA determination, the determination of "normal circumstances" for purposes of wetlands definition (*see* Response to Comment No. 12.10), etc. — despite the oft-stated (and unmet) goal to reduce such case-by-case determinations.

goal of having uniform program requirements. The requirement is also problematic because it is open-ended, and the breadth of this requirements was highlighted in Response to Comment No. 1.8, in which staff identified analyzing future sea level rise, variable climate, storm intensity, dry periods, flood risks, drought, and increased vulnerability to invasive species as appropriate actions related to this requirement. Such an analysis would be burdensome and speculative. CEQA documents already deal with such factors, and therefore, the Procedures would be duplicative and unnecessary. For these reasons, the Procedures should be revised to eliminate the reference to information regarding climate change. At a minimum, the Board should include a reasonableness standard on the potential impacts to make the requirement less open-ended.

The Procedures also allow too much discretion and uncertainty in determining when an application is complete. The application requirements should specify that, if the applicant requests a pre-application meeting, the permitting authority must meet within 30 days of receiving the request. The purpose of the meeting would be to review the jurisdictional status of the aquatic features within the project area, evaluate application materials to be required, consider potential avoidance and minimization measures and, if necessary, alternatives to be examined, and provide feedback on mitigation proposals. Any materials in Section IV.A.2 (Additional Items Required for a Complete Application) of the Procedures that is not identified by the permitting authority in the pre-application meeting or in writing within 30 days thereafter will not be required for a complete application. If the permitting authority does not meet with the applicant, materials listed in Section IV.A.2 should not be required to complete the application. If the applicant does not request pre-application meeting, any materials in Section IV.A.2 not requested by the permitting authority within 30 days of receipt of the required application materials listed in Section IV.A.1 should be deemed waived. Again, if there will be no additional burden on the Water Boards from the Procedures as staff have stated, these necessary timing requirements should be no concern and will support the State Board's stated goal of creating an efficient program that will not overly burden or delay critical projects.

G. Watershed Plans

The Procedures recommends that Watershed Plans be used when assessing mitigation proposals. Specifically, the Procedures call for "a watershed approach based on a watershed profile developed from a watershed plan that has been approved by the permitting authority and analyzed in an environmental document" will be given preference and lower mitigation ratios than a plan that does not have a watershed plan approved by the permitting authority and analyzed in a CEQA document. The Procedures defines a "watershed plan" as a:

> document developed in consultation with relevant stakeholders, for the specific goal of aquatic resource restoration, establishment, enhancement, and preservation within a watershed. A watershed plan addresses aquatic resource conditions in the watershed, multiple stakeholder interests, and land uses. Watershed plans should include information about implementing the watershed plan. Watershed plans may also identify priority sites for aquatic resource restoration and protection. Examples of watershed plans include special area management plans, advance identification programs, and wetland management plans. The permitting authority may approve the use of HCPs and NCCPs as watershed plans.

See Procedures, Lines 504-511. This will place a new requirement on local agencies to develop watershed plans to be evaluated in CEQA documents when few such plans exist. The explanation about watershed plans is unclear in the policy-even as to the size of watersheds to be evaluated and how the approval process will be completed.

In the early 2000s, the State Board requested Regional Boards to develop Watershed Management Plans All of these reports were prepared between 2004 and 2007 (one remains a draft). It does not appear that any of them would be compliant with the requirements contained in the Procedures. These reports varied in how the watersheds were described, the number and size of the watersheds that were evaluated, and what findings were reached in relationship to wetlands. Most did not identify specific wetland types nor establish priority sites for aquatic resources restoration or protection. To our knowledge, entirely new plans are anticipated under the Procedures, but with no plan or funding identified to prepare such Plans. The Procedures should reference who is responsible for these plans and how they will be funded and developed. Otherwise, applicants will be penalized (in terms of increased mitigation) for the failure of government to prepare and implement these plans. Far more specifics will be necessary to provide consistency in preparation of these Watershed Plans so that applicants will have a fair chance in understanding how their project can be mitigated in the context of the policy.

H. Memorandum of Understanding with the Corps

State Board staff have said that many of the problems identified in public comments will be resolved through an MOU with the Corps. We question whether an MOU will in fact be finalized and, if so, whether it will legally be capable of resolving the issues addressed in the public comments. The Corps submitted comments on the prior proposal declaring the State Board did not have the legal authority to take its proposed action and it infringed on the Corps area of expertise and authority. The concerns expressed by the Corps remain with the current proposal. Have State Board staff received a commitment from the Corps Pacific Division or Corps Headquarters to enter into an MOU with the State Board? If yes, who made that commitment on behalf of the Corps and how was that commitment memorialized? If no, why does State Board staff think the Corps will enter into an MOU with the state on a proposal the Corps says exceeds the state's authority and infringes on its federal program?

If the State Board does proceed with adopting the Procedures, we think the adoption of an MOU is not optional, but required. Phase-in of the Procedures must be delayed until an MOU is negotiated and adopted and appropriate training for applying the MOU is provided to Water Board staff and guidance about the Procedures and MOU is made available to the regulated community.

Any acceptable MOU must provide a framework for harmonizing the state and federal permitting processes and resolving conflicts. Further, given the critical function any MOU will play, the State Board must phase in implementation of the Procedures so that the provisions with greatest potential to conflict with the Corps' permitting program become effective only after the State Board has entered into an MOU with the Corps.

Water Board staff must be required to defer to the Corps' alternatives analysis in all cases involving waters of the United States until an MOU is signed.

The MOU must include specific procedures and deadlines, at a minimum. If Board staff fail to satisfy the procedures and time limits in the MOU, they may not require a revised or additional alternatives analysis under the Procedures for any discharge to waters of the United States.

The MOU must also address a process for pre-application meetings, which both agencies should attend. Water Board staff must provide direction to the applicant within 30 days following pre-application meeting regarding the contents necessary for a complete application. Water Board staff to comment within 30 days after receiving information from the Corps about the selection and evaluation of alternatives under the 404(b)(1) Guidelines. The MOU should define the process and timing for the Corps to provide a draft alternatives analysis to Water Board staff so that staff may rely on it as provided in Section IV.B.3.b of the Procedures and should define dispute resolution procedures to be used when Water Board staff disagree with the results of the Corps' alternatives analysis or feel they lacked adequate opportunity to collaborate. Again, establishing mandatory timing requirements for Water Board decision making should not be a concern if there will be no additional burden on the Water Boards as staff have told the State Board and it will provide some certainty to applicants that their projects will not indefinitely be tied up in deliberation between the Corps and the Water Boards.

IV. Conclusion

The Coalition appreciates the opportunity to comment on the Procedures. The Procedures as drafted go far beyond what is needed to regulated "isolated" wetlands and, in the process, will create substantial burdens on applicants and will strain Water Board resources. They cannot be finalized as currently drafted. If the State Board intends to finalize the Procedures, the revisions discussed above (and in the attached redline) to the wetland definition and delineation procedures, exclusions from the alternatives analysis requirement and other application requirements, and compensatory mitigation requirements are critical and necessary.

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Attachment 1

Methodology for Cost and Staff Estimation to Implement the Procedures

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Methodology for Cost and Staff Estimation to Implement the Procedures

Prepared by WRA, Inc

The methodology for the cost estimation for compliance with the Procedures and the additional staffing necessary involved a number of factors:

- determination of the number of Water Board applications that would be covered under the new Procedures,
- the cost that would be entailed for the preparation of additional materials by the applicant, and
- the staff time needed to advise, review, and approve these materials.

The description of the steps involved is provided below and in the notes to Table 1 of the Coalition Comment that provides the additional costs and staffing required for compliance under the Procedures. Additional time and cost were evaluated for the following requirements of the Procedures:

- Additional wetland delineation data collection and evaluation
- Assessment of climate change impacts
- Additional alternatives analysis requirements
- Additional required components for mitigation plans

The Procedures will apply to Individual, Regional and General Permits issued by the Corps, as well as Individual Waste Discharge Requirements. The State Board provides an analysis of its Water Quality Certification Program in its Annual Performance Report. The last published numbers from the fiscal year 2015-16 state that it processed 1,289 Water Quality Certifications during that period.[1] This number was assumed for the total number that the Board might see in any year.

To evaluate the potential cost of the Alternatives Analysis requirements, the number of Nationwide Permits issued annually by the three Corps Districts in California were acquired via a Freedom of Information Act request to The U.S. Army Corps of Engineers (USACE). USACE electronically tracks permit data, including permitted impacts, through the ORMS database, which is the source of the data for this analysis. For the Alternatives Analysis, the Procedures would largely rely on the Section 404(b)(1) Alternatives Analysis performed by the Corps for Individual Permits, so the additional costs only apply to those NWP permits that meet one of the three Tiers as applied noted in the Procedures. The data were analyzed in Microsoft Excel to determine the total number of Nationwide Permits issued between 2007-2016 in California that had permitted impacts of greater than or equal to 0.1 acre. Nationwide 27 permits and permits that are precertified without a requirement for RWQCB notification were removed from this analysis as they are exempted from alternatives analysis under the Procedures. An average of 216 NWPs were issued annually that would be subject to the additional Alternatives Analysis requirements.

The next step in the analysis was to determine the additional actions that would be required if the Procedures as proposed were in place and to estimate the number of applications subject to these additional requirements. Some of these actions, such as additional mapping of State wetlands and preparation of watershed profiles would apply to all Corps actions for which a 401 Water Quality Certification is sought. For the Alternatives Analysis, additional costs only apply to those NWP permits

[1] During that period of time, approximately 2000 Individual and NWP decisions were made by the California Districts of the Corps of Engineers according to the ORMS database. It is assumed that the lower number of WQC applications processed by the Boards is due to the fact that some of the NWP are pre-certified by the Board and do not require a formal application, but just a notification to the Board.

that meet one of the three Tiers as applied noted in the Procedures. We assumed that only a small percentage of permit actions would require additional wet season data or less than a quarter of projects may have additional mapping of State wetlands that would require staff involvement for review and confirmation. We also assumed that only 50% of the actions would require an assessment of climate change effects; however, the guidelines merely state on a "case-by-case" basis. For other actions, we assumed that 90% of the NWPs that are reviewed by the Board would require an alternatives analysis in either the Tier 2 or Tier 3 category. Our analysis did not consider Tier 1 projects as only permits greater than 0.1 acre were counted. Finally, we considered that 75% of projects that required compensatory mitigation would necessitate a watershed profile; however, some permits may not need compensatory mitigation. We consider these to be very conservative estimates.

The cost estimate for applicants was based on standard consultant fees for the preparation of studies; however, the range can be quite large depending upon the site and the impacts involved. In determining costs, we selected a median amount based on experience of our membership and by consultants.

For example, for Alternatives Analysis, the number of on-site alternatives that are often explored include the project proposal, no-project, project with complete avoidance, and a modified project with additional avoidance. Each of these alternatives has to be prepared in sufficient detail to determine the practicality and feasibility of the alternative. It requires the services of engineers, planners, economists, and biologists to prepare these documents. Because of the legal issues involved in a 404 (b)(1) Alternatives Analysis, counsel is also required. These are not simple documents to prepare as the designs need to be detailed enough to evaluate constructability and biological impacts. We have estimated $40,000 for the document based on experience by our membership; but they can be more expensive. In addition, if off-site alternatives are needed, the cost will be higher due to the need to identify 3-4 sites, develop conceptual site plans, evaluate impacts, and prepare detailed documentation on availability and costs. We believe that these cost estimates are conservative. The Procedures require involvement of Water Board staff in developing alternatives for evaluation as part of the Corps' Individual Permit process in order for the Water Board to defer to the Corps' analysis. It is likely that inclusion of Water Board staff input would require additional time and effort for completion of standard alternatives analyses, which is not included in this estimate.

Board staff will need to have sufficient time to advise, consult, review, and meet with applicants to assure compliance with these measures. The time needed will vary, but we have estimated time based on our experience in working with staff. We determined FTE after subtracting vacation and holidays from a full time work schedule. In addition, staff will require training in these new responsibilities that we have not included in these estimates. Again, we believe these estimates are conservative as there is likely to be internal staff time involved, supervisorial oversight, and communication with applicants that will consume staff time. In addition, these estimates of staff time do not include preparation, review, and approval of Watershed Plans that must be completed for the entire State in order for applicants to comply with the Procedures when they prepare Watershed Profiles for their projects.

Finally, application processing delays resulting from the Procedures were estimated based on the median time associated with the preparation and review of additional materials required by the Procedures. The Procedures would not require every permit application to complete all actions, and some actions required by the Procedures may overlap with actions required by other state and federal requirements. However, our experience has been that the addition of these tasks require time by applicants, by Board staff to review and comment, and to finalize acceptable documents. We would

expect substantial delays of 90 to 180 days associated with each of the additional requirements of the Procedures based on experience with other projects. One example provided by Santa Clara Valley Water District staff during the September 6 hearing illustrated an actual delay of 18 months resulting from additional alternatives analysis requirements by Water Board staff.

Based on these estimates, we expect that a conservative estimate of additional costs to applicants of $47 million/year is reasonable for the additional elements required under the Procedures and that staffing requirements of 16 new staff would be necessary to process the documents necessary for compliance. Current staff in the Water Quality and Wetlands program based on the staff directory is 74, so this would represent an increase of 22% for water quality engineers with the various Boards. We estimate that the completion of these additional actions will result in approximately 250,000 additional days to process permits. This is an average of nine months of additional time to process each permit based on the number of existing Water Board staff.

This analysis was prepared by WRA, Inc, an environmental consulting firm with offices in San Rafael, Emeryville, and San Diego, CA. The permit numbers are based on data from the Corps of Engineers and the State Water Board. WRA has been providing permitting services to public and private clients for over 35 years and has extensive experience in Clean Water Act permitting. The firm's experience with preparation, submittal, and completion of 401 Water Quality Certification documents as well as the experience of other applicants was used in determining estimated costs and staff review time.

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Attachment 2

"New Silicon Valley Flood Project At Risk Because of Red Tape, Water District Says"

San Jose Mercury News (May 21, 2017)

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BREAKING NEWS | The Latest: Hurricane Irma damages crops in eastern Cuba

News

New Silicon Valley flood project at risk because of red tape, water district says

(Patrick Tehan/Bay Area News Group)
Work continues on a flood control project in Upper Berryessa Creek in Milpitas, Calif., Friday, May 19, 2017.

By **PAUL ROGERS** | progers@bayareanewsgroup.com | Bay Area News Group
PUBLISHED: May 21, 2017 at 9:00 am | UPDATED: May 22, 2017 at 3:48 am

SAN JOSE — Three months after Coyote Creek overflowed its banks and caused $100 million in damage to homes and businesses in San Jose, a flood control project straddling the city's northern edges with Milpitas may be in danger of being shut down because of red tape.

The $35 million project is designed to provide 100-year flood protection to 2.2 miles of Upper Berryessa Creek, reducing flood risk to 680 properties and, perhaps most importantly, to Santa Clara County's first BART station: the new Milpitas station, scheduled to open in December.

The creek, built by farmers in the 1920s as a drainage ditch, is now surrounded by major roads, subdivisions and developments such as the Great Mall of Milpitas. Biologists have found it

contains no endangered species, and it runs dry most years during the summer.

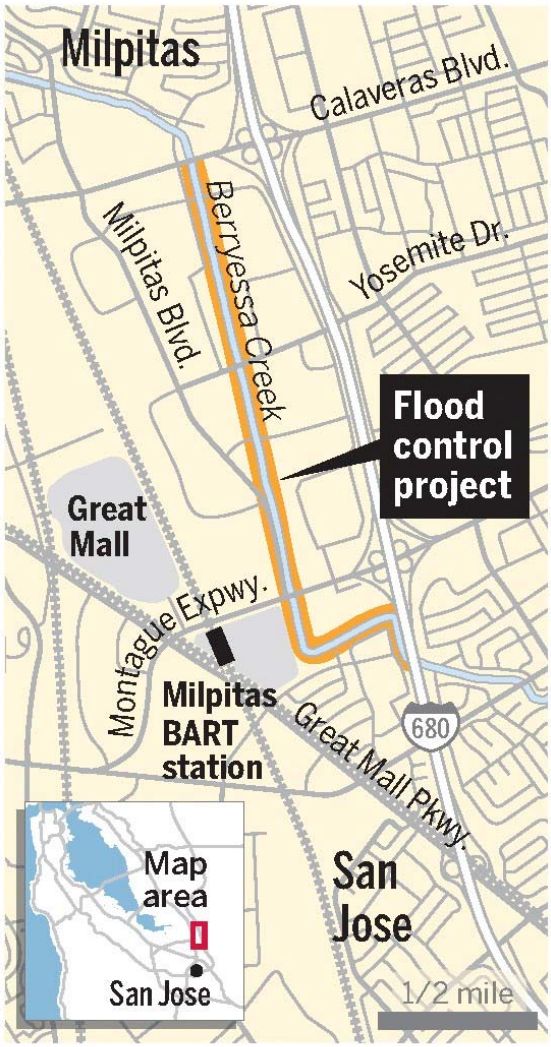
Upper Berryessa Creek didn't overflow its banks during this winter's heavy rains, but every 10 to 20 years it does. The last big floods were in 1998, 1983 and 1982.

The flood control work, funded by Congress in 2014, had all its permits. Contractors hired by the Army Corps of Engineers began work in October.

But last month, state water regulators came back and rescinded an earlier approval they gave in March 2016. The regulators, working for the San Francisco Bay Regional Water Quality Control Board in Oakland, said the two agencies overseeing the project, the U.S. Army Corps of Engineers and the Santa Clara Valley Water District, had to restore 15 acres of wetlands or 15,000 feet of creek — nearly three miles — somewhere else in the South Bay to offset the harm to the environment from the project.

That could cost millions, according to the water district, which has appealed the order and threatened to sue.

More ominously, the Army Corps warned in a letter that the additional costs could cause the project to go over budget, changing its cost-benefit ratio calculations and "leading to its cancellation."



BAY AREA NEWS GROUP

"The regional board risks bringing this project to a screeching halt — and if that happens they have to take responsibility if there is flooding in this area," said John Varela, chairman of the water district. "It's a travesty."

The environmental damage, the regional board staff wrote in its April 17 order, will come when construction crews widen the stream so it can hold more water during major storms.

When they carve back the banks and put rocky "rip rap" covered with soil and native plants along the edges, that will "result in less habitat" for "algae, worms, diatoms, micro- and macroinvertebrates, and fish larvae," providing less food for fish and birds, according to the order from the regional board. It was signed by its executive officer, Bruce Wolfe.

Frustrated water district officials say that the entire episode illustrates why it can take so long — and cost so much — to build flood control projects.

"They say the stream is good habitat for fish and birds," said Christopher Hakes, the assistant operating officer at the water district who is overseeing the project. "They took some pictures and there were ducks. I've had ducks in my pool. That doesn't mean it is the right habitat for them."

Regional water board officials say they are only enforcing the federal Clean Water Act and state water quality laws.

Keith Lichten, chief of the regional water board's watershed management division, said that the laws are designed not only to protect crystal-clear wild salmon streams, but also degraded streams that could be brought back in ways that the Chicago River and urban streams around the country have been restored.

He said the regional water board does not want the flood control work shut down. In fact, Lichten said, his agency "bent over backwards" and gave early approval last year so the work would be done in time for the BART station opening. But, he said, the agency always made it clear that it could come back later and add more provisions to the permit.

"Construction is already underway," Lichten said. "We're pretty confident that it will be completed by the end of the year in time for the BART station opening."

Water district officials say it's illegal for the regional board to require costly new additions to a project once it has given approval when the conditions have not changed.

Meanwhile, construction crews hired by the Army Corps continue their work.

On Friday, the Army Corps declined interviews. On Sept. 19, however, when the issue of wetland restoration first arose, the top Army Corps official in the San Francisco District, Lt. Col. John Morrow, wrote a letter to the regional water board saying he was "disappointed and frustrated" and that the board was overstepping its authority. He said the board should have raised concerns earlier when it helped review the project's extensive environmental impact study.

The board's claims "lack scientific basis," Morrow wrote.

"Unwarranted mitigation requirements could adversely impact the benefit-cost ratio of the project thereby leading to its cancellation," he added, noting that other new burdens "could result in either a stop work order or termination of the project."

Lichten said he has since talked with Army Corps officials and doesn't believe the agency will bring the project to a halt. But water district officials say that's still a very real possibility. They point out that Army Corps leaders in Washington, D.C., are now working for the Trump administration, which in recent weeks has halted $647 million in funding for Caltrain electrification on the Peninsula because of bureaucratic and political squabbling.

BART backers have been watching nervously. The new requirements could "result in significant delays," wrote Cindy Chavez, a Santa Clara County supervisor who is chairwoman of the Valley Transportation Authority, in an October letter to the regional water board. The VTA is overseeing the $2.3 billion project to bring BART to San Jose.

The regional board's stance could lead to "a long-term waste of public funds, or, at worst, result in the U.S. Army Corps of Engineers canceling or terminating the project," Chavez said. "Not only would this situation leave the new BART station and rail lines vulnerable to flood damage, but it could also interrupt BART service during times of flooding."

Tags: Environment, Regional, San Jose Flood, Water

Paul Rogers Paul Rogers has covered a wide range of issues for The Mercury News since 1989, including water, oceans, energy, logging, parks, endangered species, toxics and climate change. He also works as managing editor of the Science team at KQED, the PBS and NPR station in San Francisco, and has taught science writing at UC Berkeley and UC Santa Cruz.

Follow Paul Rogers @PaulRogersSJMN

Attachment 3

Coalition Revisions to State Wetland Definition and Procedures for Discharges of Dredged of Fill Materials to Waters of the State - July 21, 2017 Final Draft

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PRELIMINARY DRAFT

State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State

[Proposed for Inclusion in the Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California]

STATE WATER RESOURCES CONTROL BOARD

July 21, 2017

Final Draft

I. Introduction

The mission of the State Water Resources Control Board and the Regional Water Quality Control Boards (Water Boards) includes the preservation, enhancement, and restoration of the quality of California's water resources for the protection of the environment and all beneficial uses for the benefit of present and future generations. In accordance with the Porter-Cologne Water Quality Control Act (Water Code, § 13000 et seq.), the Water Boards are authorized to regulate discharges of waste that may affect the quality of waters of the state. As described below, waters of the state include some, but not all, features that are defined as wetlands, as well as other features, including the ocean, lakes, and rivers. These wetlands provide environmental and economic benefits to the people of this state, including flood and storm water control, surface and ground water supply, fish and wildlife habitat, erosion control, pollution treatment, nutrient cycling, and public enjoyment. Wetlands ameliorate the effects of global climate change by providing floodwater storage, sequestering carbon, and maintaining vulnerable plant and animal communities. Many of these invaluable areas statewide have been lost to fill and development. Presently, wetlands are threatened by impacts from increasing population growth, land development, sea level rise, and climate change. These Procedures for the Discharges of Dredged or Fill Materials to Waters of the State (Procedures) conform to Executive Order W-59-93, commonly referred to as California's "no net loss" policy for wetlands. In accordance with Executive Order W-59-93, the Procedures ensure that the Water Boards' regulation of dredged or fill activities will be conducted in a manner "to ensure no overall net loss and long-term net gain in the quantity, quality, and permanence of wetlands acreage and values…" The Water Boards are committed to increasing the quantity, quality, and diversity of wetlands that qualify as waters of the state.

These Procedures contain a wetland definition in section II and wetland delineation procedures in section III, both of which apply to all Water Board programs. The wetland definition encompasses the full range of wetland types commonly recognized in California, including some features not protected under federal law, and reflects current scientific understanding of the formation and functioning of wetlands. These Procedures also include procedures for the review and approval of activities that could result in the discharge of dredged or fill material to any waters of the state in section IV. The Procedures include elements of the Clean Water Act Section 404(b)(1) Guidelines, thereby bringing uniformity to Water Boards' regulation of discharges of dredged or fill material to all waters of the state.

II. Wetland Definition

The Water Boards define an area as wetland as follows:

~~*An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.*~~

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

This definition is the same as used by the U.S. Army Corps of Engineers.

The Water Code defines "waters of the state" broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." The following "wetlands" are waters of the state~~:~~

groundwater, including saline waters, within the boundaries of the state." The following "wetlands" are waters of the state~~:~~

~~1.~~ 1. Natural wetlands,

~~2.~~ 2. Wetlands created by modification of a water of the state,[1]

~~3.~~ 3. Wetlands that meet ~~current or historic definitions~~the effective definition of "waters of the United States,"[2]~~and~~

~~4.~~ 4. Artificial wetlands[3] greater than or equal to one acre in size that meet any of the following criteria:

a. Approved by an agency as mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration; and

b. Specifically identified in a water quality control plan as a ~~wetland or other~~ water of the state~~:~~.

Any "wetland" identified in II.1 through II. 4 is not a waters of the state if it was constructed or is currently used for one or more of the following purposes:

~~c. Resulted from historic human activity and has become a relatively permanent part of the natural landscape;~~

~~d. Greater~~ than or equal to one acre in size~~, unless the artificial wetland was constructed and is currently used and maintained primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy another one of the above criteria):~~

i. Industrial ~~or municipal~~, municipal, and agricultural impoundments, ponds, canals, ditches, or similar features, including those features used in industrial, municipal, or agricultural processes, wastewater treatment, or disposal,

ii. Settling of sediment,

iii. Storm water detention, infiltration, or treatment,

iv. Water supply, including conveyance systems and ground water recharge ponds,

[1] "Created by modification of a water of the state" means that the wetland that is being evaluated must have been directly converted from a water of the state, and does not include a situation where the water of the state was completely eliminated.

[2] This includes features that have been determined by the U.S. Environmental Protection Agency or the U.S. Army Corps of Engineers to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in a preliminary jurisdictional determination upon which ~~a permitting decision was based~~the applicant chooses to rely for the proposed activity; and features that are consistent with ~~any current or historic final~~ judicial ~~interpretation~~interpretations of "waters of the U.S." or ~~any current or historic~~the effective federal regulation defining "waters of the U.S."

[3] Artificial wetlands are wetlands that result from human activity.

v. ~~iv.~~ Agricultural crop irrigation or stock watering,

vi. ~~v.~~ Fire suppression,

vii. ~~vi.~~ Cooling water,

viii. ~~vii.~~ Active surface mining – even if the site is managed for interim wetlands functions and values, ~~or~~

ix. ~~viii.~~ Log storage~~.~~.

~~If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.~~

x. Active remediation sites under Water Board control,

xi. Multi-benefit water supply and water quality treatment facilities,

xii. Areas certified as prior converted croplands (PCC) by the Natural Resources Conservation Service,[4] or

xiii. Features exempted from regulation under the preamble to the Corps' 1986 final rule for regulatory programs (51 Fed. Reg. 41,206 (Nov. 13, 1986)), including

(a) Ditches dug on dry land that do not drain wetlands such as roadside ditches and ditches to reduce stormwater flooding around residential and industrial areas.

(b) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(c) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

[4] The PCC exclusion will no longer apply if: (1) the PCC changes to a non-agricultural use, or (2) the PCC is abandoned, meaning it is not planted to an agricultural crop for more than five consecutive years and wetland characteristics return, and the land was not left idle in accordance with a USDA program. For purposes of this exclusion, agricultural use means open land planted to an agricultural crop, used for the production of (1) food or fiber, (2) used for haying or grazing, (3) left idle per a USDA program, or (4) diverted from crop production to an approved cultural practice by NRCS that prevents erosion or other degradation. The term "planted" as used to define agricultural use includes cropping, management, or maintenance activities related to agricultural production. Joint Guidance from the Natural Resources Conservation Service and the Army Corps of Engineers Concerning Wetland Determinations for the Clean Water Act and the Food Security Act of 1985, February 25, 2005.

(d) Artificial reflecting pools or swimming pools created in dry land;

(e) Small ornamental waters created in dry land;

(f) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water; and

(g) Erosional features, including gullies and rills.

III. Wetland Delineation

The permitting authority shall rely on any wetland area delineation from a final aquatic resource report, with a preliminary or approved jurisdictional determination issued by the United States Army Corps of Engineers (Corps) for the purposes of determining the extent of wetland waters of the U.S. ~~A~~For a project where the Corps has not issued an approved jurisdictional determination, or a preliminary jurisdictional determination that the applicant chooses to rely on, a delineation of ~~non-federal~~ wetland areas potentially impacted by the project shall be performed using the methods described in the three federal documents listed below (collectively referred to as "1987 Manual and Supplements") to determine whether the area meets the ~~state~~ definition of a wetland as defined above. ~~As described in the 1987 Manual and Supplements, an area "lacks vegetation" if it has less than 5 percent areal coverage of plants at the peak of the growing season. The methods shall be modified only to allow for the fact that the lack of vegetation does not preclude the determination of such an area that meets the definition of wetland. Terms as defined in these Procedures shall be used if there is conflict with terms in the 1987 Manual and Supplements.~~

- Environmental Laboratory. 1987. U.S. Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

- U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

IV. Non-wetland Waters of the State

~~IV.~~ The following non-wetland aquatic features are not deemed waters of the state for purposes of the Procedures for Regulation of Discharges of Dredged or Fill Material to Waters of the State:

i. Features currently used and maintained primarily for one or more of the following purposes:

(a) Industrial, municipal, and agricultural impoundments, ponds, canals, ditches, or similar features, including those features used in industrial, municipal, or agricultural processes, wastewater treatment, or disposal,

(b) Settling of sediment,

(c) Storm water detention, infiltration, or treatment,

(d) Water supply, including conveyance systems and ground water recharge ponds,

(e) Agricultural crop irrigation or stock watering,

(f) Fire suppression,

(g) Cooling water,

(h) Active surface mining – even if the site is managed for interim aquatic functions and values,

(i) Log storage,

(j) Active remediation sites under Water Board control,

(k) Multi-benefit water supply and water quality treatment facilities,

(l) Areas certified as prior converted croplands (PCC) by the Natural Resources Conservation Service,[5] or

(m) Features exempted from regulation under the preamble to the Corps' 1986 final rule for regulatory programs (51 Fed. Reg. 41,206 (Nov. 13, 1986)), including

i) Ditches dug on dry land that do not drain wetlands such as roadside ditches and ditches to reduce stormwater flooding around residential and industrial areas.

ii) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

[5] The PCC exclusion will no longer apply if: (1) the PCC changes to a non-agricultural use, or (2) the PCC is abandoned, meaning it is not planted to an agricultural crop for more than five consecutive years and wetland characteristics return, and the land was not left idle in accordance with a USDA program. For purposes of this exclusion, agricultural use means open land planted to an agricultural crop, used for the production of (1) food or fiber, (2) used for haying or grazing, (3) left idle per a USDA program, or (4) diverted from crop production to an approved cultural practice by NRCS that prevents erosion or other degradation. Joint Guidance from the Natural Resources Conservation Service and the Army Corps of Engineers Concerning Wetland Determinations for the Clean Water Act and the Food Security Act of 1985, February 25, 2005.

iii) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

iv) Artificial reflecting pools or swimming pools created in dry land;

v) Small ornamental waters created in dry land;

vi) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water; and

vii) Erosional features, including gullies and rills.

The lateral limits of non-wetland, non-tidal features such as streams and lakes are defined by the ordinary high water mark or high tide line as defined in 33 C.F.R. § 328.4(c) (2012) (limits of jurisdiction) and 33 C.F.R. § 328.3(e) (2012) (defining "ordinary high water mark") and in accordance with the following manuals and guidance:

- US Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TR-08-12.
- US Army Corps of Engineers. 2014. A guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valley, and Coastal Region of the United States. ERDC/CREEL TR-14-13.
- Regulatory Guidance Letter 05-05. Ordinary High Water Mark Identification. December 7, 2005.

V. Procedures for Regulation of Discharges of Dredged or Fill Material to Waters of the State

The purpose of this section is to establish application procedures for discharges of dredged or fill material to waters of the state, which includes both waters of the U.S. and non-federal waters of the state. This section supplements existing state requirements for discharges of dredged or fill material to waters of the U.S.[46] These Procedures include Appendix A, which contains relevant portions of the U.S. EPA's Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredge or Fill Material"[57] (Guidelines), 1980, with minor modifications to make them applicable to the state dredged or fill program (hereafter State Supplemental Dredge or Fill Guidelines).[68] This section applies to all

[46] California Code of Regulations, title 23, sections 3830-3869 (state's Clean Water Act (CWA) section 401 (33 USC § 1341) water quality certification program)

[57] 40 C.F.R. § 230.

[68] The State Supplemental Dredge and Fill Guidelines are included as Appendix A. Because Appendix A is derived directly from the 404(b)(1) guidelines, it uses slightly different terms than terms used in sections I through V of these Procedures. Appendix A will be applied in a manner consistent with sections I through V of these Procedures.

applications for new Orders authorizing discharges of dredged or fill material to waters of the state submitted after [insert the effective date of the Plan Amendment] and does not apply to extensions or amendments of existing Orders.

Project Application Submittal for Individual Orders

Unless excluded by Section IV.D, applicants must file an application to the Water Boards for any activity that could result in the discharge of dredged or fill material to waters of the state in accordance with California Code of Regulations, title 23, section 3855.[79] The applicant may consult with the Water Boards to determine whether a project could result in impacts to waters of the state and/or discuss submittals that would meet the application requirements listed below. The applicant may request a pre-application meeting to review the jurisdictional status of the aquatic features within the project area, evaluate application materials to be required, consider potential avoidance and minimization measures and, if necessary, alternatives to be examined, and receive feedback on mitigation proposals from the permitting authority. Any materials in subsection A.2 that is not identified by the permitting authority in the pre-application meeting or in writing within 30 days thereafter will not be required for a complete application. If the permitting authority does not meet with the applicant within 30 days of receiving the request, materials listed in subsection A.2 cannot be required to complete the application.

A. Project Application Submittal

Applicants must submit the items listed in subsection 1 to the permitting authority. In addition, applicants shall consult with the permitting authority about the items listed in subsection 2. Within 30 days of receiving the items listed in subsection 1, the permitting authority may require the applicant to submit one or more of the items in subsection 2 for a complete application. If the permitting authority fails to respond within 30 days, items listed in subsection 2 cannot be required to complete the application. Within 30 days of receiving all of the required items, the permitting authority shall determine whether the application is complete and notify the applicant accordingly. If the applicant's federal license or permit application includes any of the information required in subsections 1 or 2 below, the applicant may submit the federal application materials to satisfy the corresponding state application information. If federal application materials are submitted as part of the state application, the applicant shall indicate where the corresponding state application information can be found in the federal application materials.

1. Items Required for a Complete Application

    a. All items listed in California Code of Regulations, title 23, section 3856 "Contents of a Complete Application."[810]

[79] Note that California Code of Regulations, title 23, section 3855 applies only to individual water quality certifications, but these Procedures extend the application of section 3855 to individual waste discharge requirements for discharges of dredged or fill material to waters of the state.

[810] Note that California Code of Regulations, title 23, section 3856 applies only to individual water quality certifications, but these Procedures extend the application of section 3856 to individual waste discharge requirements for discharges of dredged or fill material to waters of the state.

b. If waters of the U.S. are present, a final aquatic resource delineation report, associated with a preliminary or approved jurisdictional determination ~~issued by the Corps~~.

c. If no jurisdictional determination has been issued by the Corps, a delineation of waters of the state ~~outside of federal jurisdiction are present, a delineation of those waters~~, including wetlands delineated as described in section III.

d. The dates upon which the overall project activity will begin and end; and, if known, the date(s) upon which the discharge(s) will take place.

e. Map(s) with a scale of at least 1:24000 (1" = 2000') and of sufficient detail to accurately show (1) the boundaries of the lands owned or to be utilized by the applicant in carrying out the proposed activity, including the grading limits, proposed land uses, and, if known, the location, dimensions and type of any structures erected ~~(if known)~~ or to be erected and (2) all aquatic resources that may qualify as waters of the state, within the boundaries of the project, and all aquatic resources that may qualify as waters of the state outside of the boundary of the project that could be affected by the project. A map submitted for a Corps' preliminary jurisdictional determination may satisfy this requirement if it includes all potential waters of the state. The permitting authority may require that the map(s) be submitted in electronic format (e.g., GIS shapefiles).

f. A description of the waters proposed to receive a discharge of dredged or fill material, including the beneficial uses as listed in the applicable water quality control plan. The description should also include: a description of discharge at each individual impact location; quantity of impact at each location rounded to the nearest ~~one-thousandth (0.001~~one-hundredth (0.01) of an acre, nearest linear foot, and nearest cubic yard (as applicable); assessment of potential direct and indirect impacts to listed beneficial uses and potential mitigation measures for those potential impacts to beneficial uses, identification of existing water quality impairment(s); the source of water quality impairment(s), if known; and the presence of ~~rare,~~ threatened or endangered species habitat.

g. An alternatives analysis,[9][11] unless any one of the following exemptions apply.

i. The project ~~includes discharges to waters of the state outside of federal jurisdiction, but the project~~ would meet the terms and conditions of one or more ~~Water Board certified~~ Corps' General Permits, if all discharges were to waters of the U.S. ~~The~~ If the project includes discharges to waters of the state outside of federal jurisdiction, the permitting authority will verify that the project would meet the terms and conditions of the

[9][11] "Alternatives analysis" as used in these Procedures refer to the analysis required by Section IV.A.(h) and Appendix A, State Supplement Dredged or Fill Guidelines, section 230.10(a). An alternatives analysis also may be required in order to comply with other statutory or regulatory requirements, such as CEQA. The exemptions and the tiers set forth below do not affect any alternatives analysis conducted pursuant to another statutory or regulatory requirement. To the extent that the permitting authority is acting as the lead agency under CEQA, it may be necessary for the permitting authority to conduct further analysis to comply with CEQA.

Corps' General Permit(s) if all discharges were to waters of the U.S. based on information supplied by the applicant.

ii. The project would be conducted in accordance with a watershed plan that has been approved by an agency with jurisdiction or otherwise accepted by the permitting authority and ~~analyzed in an environmental document~~ that includes a sufficient alternatives analysis~~, monitoring provisions, and guidance on compensatory mitigation opportunities~~.

iii. The project is an Ecological Restoration and Enhancement Project.

iv. The project has no permanent impacts to aquatic resources ~~and no impacts to~~, including any bog, fen, playa, seep wetland, vernal pool, headwater creek, eelgrass bed, anadromous fish habitat, or habitat for rare, threatened or endangered species, and all implementation actions in the restoration plan can reasonably be concluded within one year of initiating impacts.

v. The project involves operation or maintenance of publicly owned infrastructure.

h. If none of the above exemptions apply, the applicant must submit an alternatives analysis consistent with the requirements of 230.10 of the State Supplemental Dredge or Fill Guidelines that allows the permitting authority to determine whether the proposed project is the Least Environmentally Damaging Practicable Alternative (LEDPA). If the applicant submitted a draft alternatives analysis to the Corps, the applicant shall provide a copy to the permitting authority. Such alternatives analyses ~~may~~shall satisfy some or all of the following requirements in accordance with Section IV.B.3. Alternatives analyses shall be completed in accordance with the following tiers, unless the permitting authority determines that a lesser level of analysis is appropriate. The level of effort required for an alternatives analysis within each tier shall be commensurate with the significance of the project's potential threats to water quality and beneficial uses~~10~~12.

i. Tier 3 projects include any project that directly and permanently impacts more than ~~two-tenths (0.2~~five-tenths (0.5) of an acre or 300 linear feet of waters of the state ~~, or directly impacts a bog, fen, playa, seep wetland, vernal pool, headwater creek, eelgrass bed, anadromous fish habitat, or habitat for rare, threatened or endangered species; and is not a project that inherently cannot be located at an alternate location~~unless it meets the criteria for a Tier 2 project. Tier 3 projects shall provide an analysis of off-site and on-site alternatives.

ii. Tier 2 projects include any project that directly and permanently impacts more than ~~one tenth (0.1) and less than or equal to two tenths (0.2~~five-tenths (0.5) of an acre or ~~more than 100 and less than or equal to~~ 300 linear feet of waters of the state~~, or any project~~ and that inherently cannot be located at an alternate location ~~(unless it meets~~

~~10~~12 As used below, "impacts" include both permanent and temporary impacts.

~~the size requirements set forth in Tier 1). Tier 2 projects shall provide an analysis of only on-site alternatives.~~.

iii. Tier 1 projects include any project that directly and permanently impacts less than or equal to ~~one tenth (0.1~~five-tenths (0.5) of an acre or less than or equal to ~~100~~300 linear feet of waters of the state~~, unless it is a Tier 3 project because it impacts a specified habitat type~~. Tier 1 projects shall provide a description of any steps that have been or will be taken to avoid and minimize loss of, or significant adverse impacts to, beneficial uses of waters of the state.

2. Additional Information Required for a Complete Application

a. If required by the permitting authority on a case-by-case basis, if the wetland area delineations were conducted in the dry season, supplemental field data from the wet season to substantiate dry season delineations.

~~b. If required by the permitting authority on a case-by-case basis, an assessment of the potential impacts associated with climate change related to the proposed project and any proposed compensatory mitigation, and any measures to avoid or minimize those potential impacts.~~

b. ~~c.~~ If compensatory mitigation is required by the permitting authority on a case-by-case basis, an assessment of the overall condition of aquatic resources proposed to receive a discharge of dredged or fill material and their likely stressors, using an assessment method approved by the permitting authority and a draft compensatory mitigation plan developed using a watershed approach containing the items below. Compensatory mitigation plans are not required for Ecological Restoration and Enhancement Projects. For permittees who intend to fulfill their compensatory mitigation obligations by securing credits from approved mitigation banks or in-lieu fee programs, their mitigation plans need include only the items i and ii, as described below, as well as information required in Appendix A, section 230.94 (c)(5) and (c)(6), and the name of the specific mitigation bank or in-lieu fee program proposed to be used.

Draft compensatory mitigation plans shall comport with the State Supplemental Dredge or Fill Guidelines, Subpart J, and include the elements listed below.

i. A watershed profile for the project evaluation area for both the proposed dredged or fill project and the proposed compensatory mitigation project.

ii. A description of how the project impacts and compensatory mitigation would not cause a net loss of the overall abundance, diversity, and condition of aquatic resources, based on the watershed profile. If the compensatory mitigation is located in the same watershed as the project, no net loss will be determined on a watershed basis. If the compensatory mitigation and project impacts are located in multiple watersheds, no net loss will be determined considering all affected watersheds. The level of detail in the plan shall be sufficient to accurately evaluate whether compensatory mitigation offsets the adverse impacts attributed to a project.

iii. Preliminary information about ecological performance standards, monitoring, and long-term protection and management, as described in State Supplemental Dredge or Fill Guidelines.

iv. A timetable for implementing the compensatory mitigation plan.

v. If the compensatory mitigation plan includes buffers, design criteria and monitoring requirements for those buffers.

vi. If the compensatory mitigation involves restoration or establishment as the form of mitigation, applicants shall notify state and federal land management agencies, airport land use commission, fire control districts, flood control districts, local mosquito-vector control district(s), and any other interested local entities prior to initial site selection. These entities should be notified as early as possible during the initial compensatory mitigation project design stage.

c. ~~d.~~ If required by the permitting authority on a case-by-case basis, if project activities include in-water work or water diversions, a proposed water quality monitoring plan to monitor compliance with water quality objectives of the applicable water quality control plan. At a minimum, the plan should include type and frequency of sampling for each applicable parameter.

d. ~~e.~~ In all cases where temporary impacts are proposed, a draft restoration plan that outlines design, implementation, assessment, and maintenance for restoring areas of temporary impact to pre-project conditions. The design components shall include the objectives of the restoration plan; grading plan of disturbed areas to pre-project contours; a planting palette with plant species native to the area; seed collection locations; and an invasive species management plan. The implementation component shall include all proposed actions to implement the plan (e.g., re-contouring, initial planting, site stabilization, removal of temporary structures) and a schedule for completing those actions. The maintenance and assessment components shall include a description of performance standards used to evaluate attainment of objectives; the timeframe for determining attainment of performance standards; and maintenance requirements (e.g., watering, weeding, replanting and invasive species control). The level of detail in the restoration plan shall be sufficient to accurately evaluate whether the restoration offsets the adverse impacts attributed to a project.

Prior to issuance of the Order, the applicant shall submit a final restoration plan that describes the restoration of all temporarily disturbed areas to pre-project conditions.

e. ~~f.~~ For all Ecological Restoration and Enhancement Projects, a draft assessment plan including the following: project objectives; description of performance standards used to evaluate attainment of objectives; protocols for condition assessment; the timeframe and responsible party for performing condition assessment; and assessment schedule. A draft assessment plan shall provide for at least one assessment of the overall condition of aquatic resources and their likely stressors, using an appropriate assessment method approved by the permitting authority, prior to restoration and/or enhancement and two years following restoration and/or enhancement to determine success of the restoration and/or enhancement.

B. Permitting Authority Review and Approval of Applications for Individual Orders

1. The permitting authority will evaluate the potential impacts on the aquatic environment from the proposed project and determine whether the proposed project complies with these Procedures. The permitting authority has the discretion to approve a project only if the applicant has demonstrated the following:

   a. A sequence of actions has been taken to first avoid, then to minimize, and lastly compensate for adverse impacts to waters of the state;

   b. The potential impacts as mitigated will not contribute to a net loss of the overall abundance, diversity, and condition of aquatic resources ~~in a watershed~~;

   c. The discharge of dredged or fill material after mitigation will not violate water quality standards and will be consistent with all applicable water quality control plans and policies for water quality control; and

   d. The discharge of dredged or fill material after mitigation will not cause or contribute to significant degradation of the waters of the state.

2. The permitting authority shall rely on any final aquatic resource report, associated with a preliminary or approved jurisdictional determination ~~issued by the Corps~~ to determine boundaries of waters of the U.S. For all other wetland area delineations, the permitting authority shall review and approve delineations that are performed using the methods described in Section III.

3. Alternatives Analysis Review Requirements:

   a. The purpose of the alternatives analysis is to identify the LEDPA. The permitting authority will be responsible for determining the sufficiency of an alternatives analysis except as described in 3(b) below. In all cases, the alternatives analysis must establish that the proposed project alternative is the LEDPA in light of all ~~potential~~ direct, secondary (indirect), and cumulative impacts on the physical, chemical, and biological elements of the aquatic ecosystem.

   b. Discharges to waters of the U.S.

      In reviewing and approving the alternatives analysis for discharges of dredged or fill material that impact waters of the U.S., the permitting authority shall defer to the Corps' determinations on the adequacy of the alternatives analysis, or rely on a draft alternatives analysis if no final determination has been made, in all cases unless and until the Corps and Water Boards have entered into an MOU that specifies the process, including steps and timelines for coordination with the Corps on the adequacy of an alternatives analysis. Once an MOU has been finalized and for so long as it remains in effect, the permitting authority shall defer to the Corps' determination unless the Executive Officer or Executive Director determines that (1) the permitting authority was not provided ~~an~~ adequate notice and opportunity to ~~collaborate in the development of~~comment on the alternatives analysis, (2) the alternatives analysis does not adequately address water quality issues identified in writing by the Executive Officer or Executive Director to the Corps during the development of the alternatives analysis, or (3) the proposed project and all of the identified alternatives would not comply with water quality

standards~~.~~ as specified in writing by the Executive Officer or Executive Director to the Corps during the development of the alternatives analysis. For purposed of this section, "adequate notice and opportunity" should include, but not be limited to, activities such as receiving notice of meetings from the applicant or Corps regarding development of the alternatives analysis.

If the project also includes discharges to waters of the state outside of federal jurisdiction, the permitting authority shall require the applicant to supplement the alternatives analysis to include waters of the state outside of federal jurisdiction. If an alternatives analysis is not required by the Corps for waters of the U.S. impacted by the discharge of dredged or fill material, the permitting authority shall require an alternatives analysis for the entire project in accordance with the State Supplemental Dredge or Fill Guidelines, unless the project is exempt under Section IV.A. 1(g) above.

4. Prior to ~~issuance of the Order~~commencement of permitted activities that would impacts waters of the state, the permitting authority will review and approve the final restoration plan for temporary impacts.

5. Compensatory Mitigation

   a. Compensatory mitigation, in accordance with the State Supplemental Dredge or Fill Guidelines, Subpart J, may be required to ensure that an activity complies with these Procedures.

   b. ~~Where feasible, the~~The permitting authority will consult and coordinate with any other public agencies that have concurrent mitigation requirements in order to achieve multiple environmental benefits with a single mitigation project, thereby reducing the cost of compliance to the applicant. In reviewing and approving compensatory mitigation for impacts to waters of the United States, the permitting authority shall defer to the Corps' determination on the adequacy of mitigation proposed pursuant to V.B.5.

   c. Amount: ~~The~~For impacts to waters of the state outside of federal jurisdiction that are not subject to mitigation determined appropriate by the Corps, the amount of compensatory mitigation will be determined on a project-by-project basis in accordance with State Supplemental Dredge or Fill Guidelines, section 230.93(f). The permitting authority may take into account recent anthropogenic degradation to the aquatic resource and the potential and existing functions and conditions of the aquatic resource. A minimum of one-to-one acreage or length of stream reach replacement is necessary to compensate for wetland or stream losses unless an appropriate function or condition assessment method clearly demonstrates, on an exceptional basis, that a lesser amount is sufficient. A reduction in the mitigation ratio for compensatory mitigation will be considered by the permitting authority if buffer areas adjacent to the compensatory mitigation are also required to be maintained as part of the compensatory mitigation management plan. ~~The amount of compensatory mitigation required by the permitting authority will vary depending on which of the following strategies the applicant uses to locate the mitigation site within a watershed.~~

      ~~Strategy 1: Applicant locates compensatory mitigation using a watershed approach based on a watershed profile developed from a watershed plan that has been approved by the~~

~~permitting authority and analyzed in an environmental document, includes monitoring provisions, and includes guidance on compensatory mitigation opportunities;~~

~~Strategy 2: Applicant locates compensatory mitigation using a watershed approach based on a watershed profile developed for a project evaluation area, and demonstrates that the mitigation project will contribute to the sustainability of watershed functions and the overall health of the watershed area's aquatic resources.~~

Generally, the amount of compensatory mitigation ~~required under Strategy 1 will be less than the amount of compensatory mitigation required under Strategy 2 since~~will decrease as the level of certainty that a compensatory mitigation project will meet its performance standards increases ~~if the compensatory mitigation project complies with a watershed plan as described above~~. Certainty increases when there is a corresponding increase in understanding of watershed conditions~~, which is increased when using a watershed plan as described above to determine compensatory mitigation requirements~~.

d. Type and Location: The permitting authority will evaluate the applicant's proposed mitigation type and location for impacts to waters of the state that are outside of federal jurisdiction based on the applicant's use of a watershed approach based on a watershed profile. The permitting authority will determine the appropriate type and location of compensatory mitigation based on watershed conditions, impact size, location and spacing, aquatic resource values, relevant watershed plans, and other considerations.

In general, the required compensatory mitigation should be located within the same watershed as the impact site, but the permitting authority may approve compensatory mitigation in a different watershed. For example, if a proposed project may affect more than one watershed, then the permitting authority may determine that locating all required project mitigation in one area is ecologically preferable to requiring mitigation within each watershed.

e. Final Compensatory Mitigation Plan: The permitting authority will review and approve the final compensatory mitigation plan submitted by the applicant to ensure mitigation comports with the State Supplemental Dredge or Fill Guidelines, Water Code requirements, applicable water quality standards, and other appropriate requirements of state law. The level of detail in the final plan shall be sufficient to accurately evaluate whether compensatory mitigation offsets the adverse impacts attributed to a project considering the overall size and scope of impact. The compensatory mitigation plan shall be sufficient to provide the permitting authority with a reasonable assurance that replacement of the full range of lost aquatic ~~resource(s) and/or~~ functions of waters of the state will be provided in perpetuity.

The permitting authority may include as a condition of ~~an Order~~commencing permitted activities that would impact waters of the state that the applicant receive approval of a final mitigation plan ~~prior to discharging dredged or fill materials to waters of the state. In this case, the permitting authority will approve the final mitigation plan by amending the Order.~~from the Executive Officer or Executive Director, or his or her designee.

f. Financial Security: Where deemed necessary by the permitting authority, provision of a financial security (e.g., letter of credit or performance bond or appropriate public agency funding) shall be a condition of the Order. In this case, the permitting authority will approve

the financial security to ensure compliance with compensatory mitigation plan requirements and will not require duplicative financial securities for mitigation required by other public agencies.

g. Term of Mitigation Obligation: The permitting authority may specify in the Order the conditions that must be met in order for the permitting authority to release the permittee from the mitigation obligation for impacts to non-federal waters of the state, including compensatory mitigation performance standards and long-term management funding obligations.

6. The permitting authority shall provide public notice in accordance with Water Code section 13167.5 for waste discharge requirements. The permitting authority shall provide public notice of an application for water quality certification in accordance with California Code of Regulations, title 23, section 3858. ~~If the permitting authority receives comments on the application or there is substantial public interest in the project, the permitting authority shall also provide public notice of the draft Order, or draft amendment of the Order, unless circumstances warrant a shorter notice period.~~

7. The permitting authority will review and approve the final monitoring and reporting requirements for all projects. Monitoring and reporting may be required to demonstrate compliance with the terms of the Order.

C. General Orders

The permitting authority may issue general orders for specific classes of dredged or fill discharge activities that are similar; involve the same or similar types of discharges and possible adverse impacts requiring the same or similar conditions or limitations in order to alleviate potential adverse impacts to water quality; and are determined by the permitting authority to more appropriately be regulated under a general order rather than under an individual Order.

General orders shall be reviewed, noticed, and issued in accordance with the applicable requirements of division 7 of the Water Code and the California Code of Regulations, division 3 of title 23.

Applicants applying to enroll under a general order shall follow the instructions specified in the general order for obtaining coverage.

Any activity enrolled under a general order issued pursuant to these Procedures shall be excluded from the application procedures specified in sections V.A and V.B.

D. Activities and Areas Excluded from the Application Procedures for Regulation of Discharges of Dredged or Fill Material to Waters of the State

The application procedures specified in sections ~~IV~~V.A and ~~IV~~V.B do not apply to proposed discharges of dredged or fill material to waters of the state from the following activities or to the following areas. ~~These exclusions do not, however, affect the Water Board's authority to issue or waive waste discharge requirements (WDRs) or take other actions for the following activities or areas to the extent authorized by the Water Code.~~

1. Activities excluded from application procedures in sections ~~IV~~V.A and ~~IV~~V.B:

a. Activities that are exempt under CWA section 404(f) (33 USC § 1344(f)). The following federal regulations (Table 1), guidance letters (Table 2), and memoranda (Table 3), that have been adopted pursuant to CWA section 404(f) or that are used to interpret or implement section 404(f) shall be used when determining whether certain activities are excluded from these procedures. These documents are hereby incorporated by reference and shall apply to all waters of the state. Consistent with CWA section 404(f)(2) and 40 CFR section 232.3, any discharge of dredged or fill material to a water of the state incidental to any of these activities is not exempt under CWA section 404(f) and shall be subject to the application procedures sections IV.A and IV.B, if (1) the purpose of the activity is bringing a water of the state into a use to which it was not previously subject, where the flow or circulation of water of the state may be impaired or the reach of such waters be reduced, or (2) the discharge contains any toxic pollutant listed in CWA section 307.

b. **Table 1: CFR References**[~~11~~13]

Title	Section	Name
33 CFR	323.4	Discharges not requiring permits (1986)
40 CFR	232.3	Activities not requiring permits (1988)

~~**Table 2: Applicable U.S. Army Corps of Engineers (Corps) Regulatory Guidance Letters (RGLs)**[12]~~[14]

RGL	Title
82-03	Irrigation Exemption in Section 404(F)(1)(C) of the Clean Water Act
84-01	Regulatory Jurisdiction Over Vegetative Operations
84-05	Fifth Circuit Decision in *Avoyelles vs. Marsh*
85-04	Agricultural Conversion
86-01	Exemptions to Clean Water Act - Plowing
86-03	Exemption of Farm and Forest Roads

[~~11~~13] The documents in Table 1 are available at the U.S. Government Printing Office, Code of Federal Regulations webpage: http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=C.F.R.

[~~12~~14] The documents in Table 2 are available at the U.S. Army Corps of Engineers, Regulatory Program and Permits, Related Resources, Regulatory Guidance Letters webpage: http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/GuidanceLetters.aspx

87-07	Exemption for Drainage Ditch Maintenance
87-09	Exemption for Construction or Maintenance of Farm or Stock Ponds
90-07	Clarification of the Phrase "Natural Conditions" as it Pertains to Cropped Wetlands
92-02	Water Dependency and Cranberry Production
93-03	Rescission of RGL's 90-5 and 90-8
96-02	Applicability of Exemptions under Section 404(f) to "Deep Ripping" Activities in Wetlands
07-02	Exemptions for Construction or Maintenance of Irrigation Ditches and Maintenance of Drainage Ditches Under Section 404 of Clean Water Act

Table 3: Memoranda~~13~~15

Memorandum for the Field: Clean Water Act Section 404 Regulatory Program and Agricultural Activities (1990)

c. Suction dredge mining activities for mineral recovery regulated under CWA section 402.

d. Activities enrolled under a general order issued by a Water Board pursuant to section V.C.

2. Areas excluded from application procedures in sections IV.A and IV.B:

~~a. Discharges of dredged or fill material that occur within wetland areas that have been certified as prior converted cropland (PCC) by the Natural Resources Conservation Service. The PCC exclusion will no longer apply if: (1) the PCC changes to a non-agricultural use, or (2) the PCC is abandoned, meaning it is not planted to an agricultural commodity for more than five consecutive years and wetland characteristics return, and the land was not left idle in accordance with a USDA program.~~

~~i. For purposes of D.2.(a), agricultural commodity means any crop planted and produced by annual tilling of the soil, including tiling by one-trip planters, or sugarcane.[14]~~

~~13~~15 These documents are available at the U.S. Army Corps of Engineers Regulatory Program and Permits, Related Resources, Memoranda of Understanding/Agreement webpage: http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/MOUMOAs.aspx

~~14 Joint Guidance from the Natural Resources Conservation Service and the Army Corps of Engineers Concerning Wetland Determinations for the Clean Water Act and the Food Security Act of 1985, February 25, 2005.~~

~~ii. For purposes of D.2.(a), agricultural use means open land planted to an agricultural crop, used for the production of (1) food or fiber, (2) used for haying or grazing, (3) left idle per a USDA program, or (4) diverted from crop production to an approved cultural practice by NRCS that prevents erosion or other degradation.[15]~~

a. ~~b.~~ Discharges of dredged or fill material that are associated with routine maintenance of storm water facilities ~~regulated under another Water Board Order~~, such as sedimentation/storm water detention basins.

For activities associated with (1) an appropriation of water subject to Part 2 (commencing with section 1200) of Division 2 of the Water Code, (2) a hydroelectric facility where the proposed activity requires a Federal Energy Regulatory Commission (FERC) license or amendment to a FERC license, or (3) any other diversion of water for beneficial use, the Division of Water Rights will inform the applicant whether the application procedures in sections IV.A and IV.B will apply to the application.

VI. ~~V.~~ Definitions

The following definitions apply to these Procedures, including the State Supplemental Dredge or Fill Guidelines. Unless otherwise indicated, any term that is not defined in these Procedures shall have the same meaning as defined in Water Code section 13050, and title 23, section 3831 of the California Code of Regulations.

Active surface mining means surface mining operations which, in accordance with Division 2, Chapter 9 of the Surface Mining and Reclamation Act of 1975, have an approved reclamation plan, and for which reclamation has not been certified as complete by the local lead agency with the concurrence of the Department of Conservation,.

Abundance means an estimate of the amount of aquatic resources by type in a watershed area, and what types of aquatic resources are most and least prevalent.

Alternatives Analysis is the process of analyzing project alternatives, including the proposed project, to determine the alternative that is both practicable and the least environmentally damaging.

Application means a written request, including a report of waste discharge or request for water quality certification, for authorization of any activity that may result in the discharge of dredged or fill material and is subject to these Procedures.

Wetland Delineation means the application of a technical and procedural method to identify the boundary of a wetland area within a specified study site by identifying the presence or absence of wetland indicators at multiple points at the site and by establishing boundaries that group together sets of points that share the same status as wetland versus non-wetland.

Discharge of Dredged Material means addition of dredged material, material that is excavated or dredged from waters of the state, including redeposit of dredged material other than incidental fallback within, to the waters of state.

~~[15] Joint Guidance from the Natural Resources Conservation Service and the Army Corps of Engineers Concerning Wetland Determinations for the Clean Water Act and the Food Security Act of 1985, February 25, 2005~~

Diversity means the relative proportion of aquatic resource types, classification, connectivity, and spatial distribution in a watershed area.

Discharge of Fill Material means the addition of fill material where the material has the effect of replacing any portion of a water of the state with dry land or changing the bottom elevation of any portion of a water of the state.

Ecological Restoration and Enhancement Project means the project is voluntarily undertaken for the purpose of assisting or controlling the recovery of an aquatic ecosystem that has been degraded, damaged or destroyed to restore some measure of its natural condition and to enhance the beneficial uses, including potential beneficial uses of water. Such projects are undertaken: 1) in accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Farm Service Agency, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Forest Service, U.S. Bureau of Land Management, California Department of Fish and Wildlife, California Wildlife Conservation Board, California Coastal Conservancy, or other federal or state resource agency or non-governmental conservation organization; or 2) by a state or federal agency. These projects do not include the conversion of a stream or natural wetland to uplands or stream channelization. It is recognized that ecological restoration and enhancement projects may require filling gullied stream channels and similar rehabilitative activities to re-establish stream and meadow hydrology. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during rehabilitation activities are not considered a conversion to another aquatic habitat type. These projects also do not include actions required under a Water Board order (e.g., WDRs, waivers of WDRs, or water quality certification) for mitigation, actions to service required mitigation, or actions undertaken for the primary purpose of land development.

Environmental Document means a document prepared for compliance with the California Environmental Quality Act or the National Environmental Policy Act.

Hydrophyte means any macrophyte that grows in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content; plants typically found in wet habitats.

LEDPA means the least environmentally damaging practicable alternative. ~~The~~To the extent these Procedures do not require deference to the Corps' determination of the LEDPA, the permitting authority's determination of practicable alternatives shall be consistent with the State Supplemental Guidelines, section 230.10(a).

Normal Circumstances is the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed. The determination of whether normal circumstances exist in a disturbed area involves an evaluation of the extent and relative permanence of the physical alteration of wetlands hydrology and hydrophytic vegetation and consideration of the purpose and cause of the physical alterations to hydrology and vegetation.

Order means Waste Discharge Requirements, waivers of Waste Discharge Requirements, or water quality certification.

Permitting Authority means the entity or person issuing the Order (i.e., the applicable Water Board, Executive Director or Executive Officer, or his or her designee).

~~**Project Evaluation Area** means an area that includes the project impact site, and/or the compensatory mitigation site, and is sufficiently large to evaluate the effects of the project and/or the~~

~~compensatory mitigation on the abundance, diversity, and condition of aquatic resources in an ecologically meaningful unit of the watershed. The size and location of the ecologically meaningful unit shall be based on a reasonable rationale.~~

Water Boards mean any of the nine Regional Water Quality Control Boards, the State Water Resources Control Board, or all of them collectively.

Watershed means a land area that drains to a common waterway, such as a stream, lake, estuary, wetland, or ultimately the ocean.

Watershed Approach means an analytical process for evaluating the environmental effects of a proposed project and making decisions that support the sustainability or improvement of aquatic resources in a watershed. The watershed approach recognizes that the abundance, diversity, and condition of aquatic resources in a watershed support beneficial uses. Diversity of aquatic resources includes both the types of aquatic resources and the locations of those aquatic resources in a watershed. Consideration is also given to understanding historic and potential aquatic resource conditions, past and projected aquatic resource impacts in the watershed, and terrestrial connections between aquatic resources. The watershed approach can be used to evaluate avoidance and minimization of direct, indirect, secondary, and cumulative project impacts. It also can be used in determining compensatory mitigation requirements.

Watershed Plan means a document developed in consultation with relevant stakeholders~~,~~ that provides for the specific goal of aquatic resource restoration, establishment, enhancement, and preservation within a watershed. A watershed plan addresses aquatic resource conditions in the watershed, multiple stakeholder interests, and land uses. Watershed plans should include information about implementing the watershed plan. Watershed plans may also identify priority sites for aquatic resource restoration and protection. Examples of watershed plans include special area management plans, advance identification programs, ~~and~~ wetland management plans~~. The permitting authority may approve the use of~~, and HCPs and NCCPs approved by agencies with jurisdiction or otherwise accepted by the permitting authority as watershed plans.

Watershed Profile means a compilation of data or information on the abundance, diversity, and condition of aquatic resources in a project evaluation area. The watershed profile shall include a map and a report characterizing the location, abundance and diversity of aquatic resources in ~~the project evaluation area~~an ecologically meaningful unit of the watershed, assessing the condition of aquatic resources in the project evaluation area, and describing the environmental stress factors affecting that condition.

The watershed profile shall include information sufficient to evaluate direct, secondary, and cumulative impacts of project and factors that may favor or hinder the success of compensatory mitigation projects~~, and help define watershed goals~~. It may include such things as current trends in habitat loss or conservation, cumulative impacts of past development activities, current development trends, the presence and need of sensitive species, and chronic environmental problems or site conditions such as flooding or poor water quality.

The scope and detail of the watershed profile shall be commensurate with the magnitude of impact associated with the proposed project. Information sources include online searches, maps, and watershed plans~~, and possibly some fieldwork if necessary. In some cases, field data may need to be collected in the project evaluation area to confirm the reported condition~~. Some or all of the information may be obtained from a watershed plan. Watershed profiles for subsequent projects in a watershed can be used to track the cumulative effectiveness of the permitting authority's decisions.

Appendix A: State Supplemental Dredge or Fill Guidelines

It is the intent of the Water Boards to be consistent with the EPA's 404(b)(1) Guidelines where feasible. Due to jurisdictional and procedural differences, some modifications to the EPA's Guidelines were necessary. Generally, these changes or deletions were made to reduce redundancy (especially where sufficiently described elsewhere in these Procedures) and to account for other state requirements. Note that the numbering scheme of the EPA's 404(b)(1) Guidelines has been retained in these State Supplemental Dredge or Fill Guidelines for the benefit of practitioners who are familiar with the federal Guidelines. The State Supplemental Dredge or Fill Guidelines describe how the Water Boards will implement the 404(b)(1) Guidelines under these Procedures. The definitions contained herein apply to these Procedures, including the State Supplemental Dredge or Fill Guidelines.

Subpart A – General[16]

§ 230.3 Definitions.

For purposes of these Procedures, the following terms shall have the meanings indicated:

(c) The terms aquatic environment and aquatic ecosystem mean waters of the state, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals.

(h) The term discharge point means the point within the disposal site at which the dredged or fill material is released.

(i) The term disposal site means that portion of the "waters of the state" where the discharge of dredged or fill material is permitted and involves a bottom surface area and any overlying volume of water. In the case of wetlands or ephemeral streams on which surface water is not present, the disposal site consists of the wetland or ephemeral stream surface area.

(k) The term extraction site means the place from which the dredged or fill material proposed for discharge is to be removed.

(n) The term permitting authority means as defined above in the main text of these Procedures.

(q) The term practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

(q1) Special aquatic sites are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. (See § 230.10 (a)(3))

[16] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

§ 230.6 Adaptability[17]

(a) The manner in which these Guidelines are used depends on the physical, biological, and chemical nature of the proposed extraction site, the material to be discharged, and the candidate disposal site, including any other important components of the ecosystem being evaluated. Documentation to demonstrate knowledge about the extraction site, materials to be extracted, and the candidate disposal site is an essential component of guideline application. These Guidelines allow evaluation and documentation for a variety of activities, ranging from those with large, complex impacts on the aquatic environment to those for which the impact is likely to be innocuous. It is unlikely that the Guidelines will apply in their entirety to any one activity, no matter how complex. It is anticipated that substantial numbers of applications will be for minor, routine activities that have little, if any, potential for significant degradation of the aquatic environment. It generally is not intended or expected that extensive testing, evaluation or analysis will be needed to make findings of compliance in such routine cases.

(b) The Guidelines user, including the agency or agencies responsible for implementing the Guidelines, must recognize the different levels of effort that should be associated with varying degrees of impact and require or prepare commensurate documentation. The level of documentation should reflect the significance and complexity of the discharge activity.

(c) An essential part of the evaluation process involves making determinations as to the relevance of any portion(s) of the Guidelines and conducting further evaluation only as needed. However, where portions of the Guidelines review procedure are “short form” evaluations, there still must be sufficient information (including consideration of both individual and cumulative impacts) to support the decision of whether to specify the site for disposal of dredged or fill material and to support the decision to curtail or abbreviate the evaluation process. The presumption against the discharge in § 230.1 applies to this decision-making.

Subpart B – Compliance with Guidelines[18]

§ 230.10 Restrictions on Discharge

(a) No discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

(1) For the purpose of this requirement, practicable alternatives include, but are not limited to:

(i) Activities which do not involve a discharge of dredged or fill material to waters of the state or ocean waters;

(ii) Discharges of dredged or fill material at other locations in waters of the state or ocean waters;

[17] Note that the numbering scheme of the Corps’ 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps’ 404(b)(1) Guidelines.

[18] Note that the numbering scheme of the Corps’ 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps’ 404(b)(1) Guidelines.

(2) An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.

(3) Where activity associated with a discharge which is proposed for a special aquatic site (as defined in subpart E) does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not "water dependent"), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.

(b) No discharge of dredged or fill material shall be permitted if it:

(1) Causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable State water quality standard;

(2) Violates any applicable toxic effluent standard or prohibition under section 307 of the Clean Water Act;

(c) No discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the state. Under these Guidelines, effects contributing to significant degradation considered individually or collectively, include:

(1) Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites;

(2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes.

(3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or

(4) Significantly adverse effects of the discharge of pollutants on recreational, aesthetic, and economic values.

(d) No discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem. Subpart H identifies such possible steps.

Subpart E – Potential Impacts on Special Aquatic Sites

§ 230.40 Sanctuaries and refuges[19]

(a) Sanctuaries and refuges consist of areas designated under State and Federal laws or local ordinances to be managed principally for the preservation and use of fish and wildlife resources.

§ 230.41 Wetlands.

(a)(1) Wetlands are as defined above in the main text of these Procedures.

§ 230.42 Mud Flats.

(a) Mud flats are broad flat areas along the sea coast and in coastal rivers to the head of tidal influence and inland lakes, ponds, and riverine systems. When mud flats are inundated, wind and wave action may resuspend bottom sediments. Coastal mud flats are exposed at extremely low tides and inundated at high tides with the water table at or near the surface of the substrate. The substrate of mud flats contains organic material and particles smaller in size than sand. They are either unvegetated or vegetated only by algal mats.

§ 230.43 Vegetated shallows.

(a) Vegetated shallows are permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as turtle grass and eel grass in estuarine or marine systems as well as a number of freshwater species in rivers and lakes.

§ 230.45 Riffle and Pool Complexes.

(a) Steep gradient sections of streams are sometimes characterized by riffle and pool complexes. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. Pools are characterized by a slower stream velocity, a streaming flow, a smooth surface, and a finer substrate. Riffle and pool complexes are particularly valuable habitat for fish and wildlife.

Subpart H – Actions to Minimize Adverse Effects

Note: There are many actions which can be undertaken in response to 230.10(d) to minimize the adverse effects of discharges of dredged or fill material. Some of these, grouped by type of activity, are listed in this subpart. Additional criteria for compensation measures are provided in subpart J of these procedures.

§ 230.70 Actions concerning the location of the discharge.

The effects of the discharge can be minimized by the choice of the disposal site. Some of the ways to accomplish this are by:

[19] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

(a) Locating and confining the discharge to minimize smothering of organisms;

(b) Designing the discharge to avoid a disruption of periodic water inundation patterns;

(c) Selecting a disposal site that has been used previously for dredged material discharge;

(d) Selecting a disposal site at which the substrate is composed of material similar to that being discharged, such as discharging sand on sand or mud on mud;

(e) Selecting a disposal site, the discharge point, and the method of discharge to minimize the extent of any plume;

(f) Designing the discharge of dredged or fill material to minimize or prevent the creation of standing bodies of water in areas of normally fluctuating water levels, and minimize or prevent the drainage of areas subject to such fluctuations.

§ 230.71 Actions concerning the material to be discharged[20]

The effects of a discharge can be minimized by treatment of, or limitations on the material itself, such as:

(a) Disposal of dredged material in such a manner that physiochemical conditions are maintained and the potency and availability of pollutants are reduced.

(b) Limiting the solid, liquid, and gaseous components of material to be discharged at a particular site;

(c) Adding treatment substances to the discharge material;

(d) Utilizing chemical flocculants to enhance the deposition of suspended particulates in diked disposal areas.

§ 230.72 Actions controlling the material after discharge.

The effects of the dredged or fill material after discharge may be controlled by:

(a) Selecting discharge methods and disposal sites where the potential for erosion, slumping or leaching of materials into the surrounding aquatic ecosystem will be reduced. These sites or methods include, but are not limited to:

(1) Using containment levees, sediment basins, and cover crops to reduce erosions:

(2) Using lined containment areas to reduce leaching where leaching of chemical constituents from the discharged material is expected to be a problem;

(b) Capping in-place contaminated material with clean material or selectively discharging the most contaminated material first to be capped with the remaining material;

(c) Maintaining and containing discharged material properly to prevent point and nonpoint sources of pollution;

[20] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

(d) Timing the discharge to minimize impact, for instance during periods of unusual high water flows, wind, wave, and tidal actions.

§ 230.73 Actions affecting the method of dispersion.

The effects of a discharge can be minimized by the manner in which it is dispersed, such as:

(a) Where environmentally desirable, distributing the dredged material widely in a thin layer at the disposal site maintain natural substrate contours and elevation;

(b) Orienting a dredged or fill material mound to minimize undesirable obstruction to the water current or circulation pattern, and utilizing natural bottom contours to minimize the size of the mound;

(c) Using silt screens or other appropriate methods to confine suspended particulate/turbidity to a small area where settling or removal can occur;

(d) Making use of currents and circulation patterns to mix, disperse and dilute the discharge;

(e) Minimizing water column turbidity by using a submerged diffuser system. A similar effect can be accomplished by submerging pipeline discharges or otherwise releasing materials near the bottom;

(f) Selecting sites or managing discharges to confine and minimize the release of suspended particulates to give decreased turbidity levels and to maintain light penetration for organisms;

(g) Setting limitations on the amount of material to be discharged per unit of time or volume of receiving water.

§ 230.74 Actions related to technology.

Discharge technology should be adapted to the needs of each site. In determining whether the discharge operation sufficiently minimizes adverse environmental impacts, the applicant should consider:

(a) Using appropriate equipment or machinery, including protective devices, and the use of such equipment or machinery in activities related to the discharge of dredged or fill material;

(b) Employing appropriate maintenance and operation on equipment or machinery, including adequate training, staffing, and working procedures;

(c) Using machinery and techniques that are especially designed to reduce damage to wetlands. This may include machines equipped with devices that scatter rather than mound excavated materials, machines with specially designed wheels or tracks, and the use of mats under heavy machines to reduce wetland surface compaction and rutting;

(d) Designing access roads and channels spanning structures using culverts, open channels, and diversions that will pass both low and high water flows, accommodate fluctuating water levels, and maintain circulation and faunal movement;

(e) Employing appropriate machinery and methods of transport of the material for discharge.

§ 230.75 Actions affecting plant and animal populations.[21]

Minimization of adverse effects on populations of plant and animals can be achieved by:

(a) Avoiding changes in water current and circulation patterns which would interfere with the movement of animals;

(b) Selecting sites or managing discharges to prevent or avoid creating habitat conducive to the development of undesirable predators or species which have a competitive edge ecologically over indigenous plants or animals;

(c) Avoiding sites having unique habitat or other value, including habitat of threatened or endangered species;

(d) Using planning and construction practices to institute habitat development and restoration to produce a new or modified environmental state of higher ecological value by displacement of some or all of the existing environmental characteristics. Habitat development and restoration techniques can be used to minimize adverse impacts and to compensate for destroyed habitat. Additional criteria for compensation measures are provided in subpart J of this part. Use techniques that have been demonstrated to be effective in circumstances similar to those under consideration wherever possible. Where proposed development and restoration techniques have not yet advanced to the pilot demonstration stage, initiate their use on a small scale to allow corrective action if unanticipated adverse impacts occur;

(e) Timing discharge to avoid spawning or migration seasons and other biologically critical time periods;

(f) Avoiding the destruction of remnant natural sites within areas already affected by development.

§ 230.76 Actions affecting human use.

Minimization of adverse effects on human use potential may be achieved by:

(a) Selecting discharge sites and following discharge procedures to prevent or minimize any potential damage to the aesthetically pleasing features of the aquatic site (e.g. viewscapes), particularly with respect to water quality;

(b) Selecting disposal sites which are not valuable as natural aquatic areas;

(c) Timing the discharge to avoid the seasons or periods when human recreational activity associated with the aquatic site is most important;

(d) Following discharge procedures which avoid or minimize the disturbance of aesthetic features on an aquatic site or ecosystem;

(e) Selecting sites that will not be detrimental or increase incompatible human activity, or require the need for frequent dredge or fill maintenance activity in remote fish and wildlife areas;

[21] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

(f) Locating the disposal site outside of the vicinity of a public water supply intake.

§ 230.77 Other actions.

(a) In the case of fills, controlling runoff and other discharges from activities to be conducted on the fill;

(b) In the case of dams, designing water releases to accommodate the needs of fish and wildlife;

(c) In dredging projects funded by Federal agencies other than the Corps of Engineers, maintain desired water quality of the return discharge through agreement with the Federal funding authority on scientifically defensible pollutant concentration levels in addition to any applicable water quality standards;

(d) When a significant ecological change in the aquatic environment is proposed by the discharge of dredged or fill material, the permitting authority should consider the ecosystem that will be lost as well as the environmental benefits of the new system.

Subpart J – Compensatory Mitigation for Losses of Aquatic Resources[22]

§ 230.91 Purpose and general considerations.

(a) Purpose.

(1) The purpose of this subpart is to establish standards and criteria for the use of all types of compensatory mitigation, including on-site and off-site permittee-responsible mitigation, mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts to waters of the state authorized through the issuance of Orders.

(d) Accounting for regional variations. Where appropriate, the permitting authority shall account for regional characteristics of aquatic resource types, functions and services when determining performance standards and monitoring requirements for compensatory mitigation projects.

§ 230.92 Definitions.[23]

For the purposes of this subpart, the following terms are defined:

Adaptive management means the development of a management strategy that anticipates likely challenges associated with compensatory mitigation projects and provides for the implementation of actions to address those challenges, as well as unforeseen changes to those projects. It requires consideration of the risk, uncertainty, and dynamic nature of compensatory mitigation projects and guides modification of those projects to optimize performance. It includes the selection of appropriate measures that will ensure that the aquatic resource functions are provided and involves analysis of monitoring results to identify potential problems of a compensatory mitigation project and the identification and implementation of measures to rectify those problems.

[22] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

[23]

Buffer means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with waters of the state from disturbances associated with adjacent land uses.

Compensatory mitigation means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Compensatory mitigation project means compensatory mitigation implemented by the permittee as a requirement of an Order (i.e., permittee-responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Condition means the relative ability of an aquatic resource to support and maintain a community of organisms having a species composition, diversity, and functional organization comparable to reference aquatic resources in the region.

Credit means a unit of measure (e.g., a functional or areal measure or other suitable metric) representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The measure of aquatic functions is based on the resources restored, established, enhanced, or preserved.

Days means calendar days.

Debit means a unit of measure (e.g., a functional or areal measure or other suitable metric) representing the loss of aquatic functions at an impact or project site. The measure of aquatic functions is based on the resources impacted by the authorized activity.

Enhancement means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.[24]

Establishment (creation) means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.

Functional capacity means the degree to which an area of aquatic resource performs a specific function.

Functions means the physical, chemical, and biological processes that occur in ecosystems.

[24] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Impact means adverse effect.

In-kind means a resource of a similar structural and functional type to the impacted resource.

In-lieu fee program means a program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements for Orders. Similar to a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor. However, the rules governing the operation and use of in-lieu fee programs are somewhat different from the rules governing operation and use of mitigation banks. The operation and use of an in-lieu fee program are governed by an in-lieu fee program instrument.

In-lieu fee program instrument means the legal document for the establishment, operation, and use of an in-lieu fee program.

Instrument means mitigation banking instrument or in-lieu fee program instrument.

Mitigation bank means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by Orders. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument.

Mitigation banking instrument means the legal document for the establishment, operation, and use of an in-lieu fee program.

Off-site means an area that is neither located on the same parcel of land as the impact site, nor on a parcel of land contiguous to the parcel containing the impact site.

On-site means an area located on the same parcel of land as the impact site, or on a parcel of land contiguous to the impact site.

Out-of-kind means a resource of a different structural and functional type from the impacted resource.

Performance standards are observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.[25]

Permittee-responsible mitigation means an aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee (or an authorized agent or contractor) to provide compensatory mitigation for which the permittee retains full responsibility.

[25] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Preservation means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Reference aquatic resources are a set of aquatic resources that represent the full range of variability exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic disturbances.

Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riparian areas are lands adjacent to waters of the state. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality.

Service area means the geographic area within which impacts can be mitigated at a specific mitigation bank or an in-lieu fee program, as designated in its instrument.

Services mean the benefits that human populations receive from functions that occur in ecosystems.

Sponsor means any public or private entity responsible for establishing, and in most circumstances, operating a mitigation bank or in-lieu fee program.

Temporal loss is the time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site. Higher compensation ratios may be required to compensate for temporal loss. When the compensatory mitigation project is initiated prior to, or concurrent with, the permitted impacts, the permitting authority may determine that compensation for temporal loss is not necessary, unless the resource has a long development time.

Watershed means a land area that drains to a common waterway, such as a stream, lake, estuary, wetland, or ultimately the ocean.[26]

[26] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

Watershed approach is defined above in the main text of these Procedures.

Watershed plan is defined above in the main text of these Procedures.

§ 230.93 General compensatory mitigation requirements.

(a) General Considerations.

(1) The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the state authorized by Orders. The permitting authority must determine the compensatory mitigation to be required in an Order, based on what would be environmentally preferable. In making this determination, the permitting authority must assess the likelihood for ecological success and sustainability, and the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project. In many cases, the environmentally preferable compensatory mitigation may be provided through mitigation banks or in-lieu fee programs because they usually involve consolidating compensatory mitigation projects where ecologically appropriate, consolidating resources, providing financial planning and scientific expertise (which often is not practical for permittee-responsible compensatory mitigation projects), reducing temporal losses of functions, and reducing uncertainty over project success. Compensatory mitigation requirements must be commensurate with the amount and type of impact that is associated with a particular Order. Applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts.

(2) Compensatory mitigation may be performed using methods or restoration, enhancement, establishment, and in certain circumstances preservation. Restoration should generally be the first option considered because the likelihood of success is greater and the impacts to potentially ecologically important uplands are reduced compared to establishment, and the potential gains in terms of aquatic resource functions are greater, compared to enhancement and preservation.

(3) Compensatory mitigation projects may be sited on public or private lands. Credits for compensatory mitigation projects on public land must be based solely on aquatic resource functions provided by the compensatory mitigation project, over and above those provided by public programs already planned or in place. All compensatory mitigation projects must comply with the standards in section IV of these Procedures, if they are to be used to provide compensatory mitigation for activities authorized by Orders, regardless of whether they are sited on public or private lands and whether the sponsor is a governmental or private entity.

(b) Type and location of compensatory mitigation.[27]

(1) In general, the required compensatory mitigation should be located within the same watershed as the impact site, and should be located where it is most likely to successfully replace lost functions and services, taking into account such watershed scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the

[27] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

availability of water rights), trends in land use, ecological benefits, and compatibility with adjacent land uses. When compensating for impacts to marine resources, the location of the compensatory mitigation site should be chosen to replace lost functions and services within the same marine ecological system (e.g., reef complex, littoral drift cell). Compensation for impacts to aquatic resources in coastal watersheds (watersheds that include a tidal water body) should also be located in a coastal watershed where practicable. Compensatory mitigation projects should not be located where they will increase risks to aviation by attracting wildlife to areas where aircraft-wildlife strikes may occur (e.g., near airports).

(2) Mitigation bank credits. When permitted impacts are located within the service area of an approved mitigation bank, and the bank has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by securing those credits from the sponsor. Since an approved instrument (including an approved mitigation plan and appropriate real estate and financial assurances) for a mitigation bank is required to be in place before its credits can begin to be used to compensate for authorized impacts, use of a mitigation bank can help reduce risk and uncertainty, as well as temporal loss of resource functions and services. Mitigation bank credits are not released for debiting until specific milestones associated with the mitigation bank site's protection and development are achieved, thus use of mitigation bank credits can also help reduce risk that mitigation will not be fully successful. Mitigation banks typically involve larger, more ecologically valuable parcels, and more rigorous scientific and technical analysis, planning and implementation than permittee-responsible mitigation. Also, development of a mitigation bank requires site identification in advance, project-specific planning, and significant investment of financial resources that is often not practicable for many in-lieu fee programs. For these reasons, the permitting authority should give preference to the use of mitigation bank credits when these considerations are applicable. However, these same considerations may also be used to override this preference, where appropriate, as, for example, where an in-lieu fee program has released credits available from a specific approved in-lieu fee project, or a permittee-responsible project will restore an outstanding resource based on rigorous scientific and technical analysis.

(3) In-lieu fee program credits. Where permitted impacts are located within the service area of an approved in-lieu fee program, and the sponsor has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by securing those credits from the sponsor. Where permitted impacts are not located in the service area of an approved mitigation bank, or the approved mitigation bank does not have the appropriate number and resource type of credits available to offset those impacts, in-lieu fee mitigation, if available, is generally preferable to permittee-responsible mitigation. In-lieu fee projects typically involve larger, more ecologically valuable parcels, and more rigorous scientific and technical analysis, planning and implementation than permittee-responsible mitigation. They also devote significant resources to identifying and addressing high-priority resource needs on a watershed scale, as reflected in their compensation planning framework. For these reasons, the permitting authority should give preference to in-lieu fee program credits over permittee-responsible mitigation, where these considerations are applicable. However, as with the preference for mitigation bank credits, these same considerations may be used to override this preference where appropriate. Additionally, in cases where permittee-responsible mitigation is likely to successfully meet performance standards before advance credits secured from an in-lieu fee program are fulfilled, the permitting authority should also

give consideration to this factor in deciding between in-lieu fee mitigation and permittee-responsible mitigation.

(4) Permittee-responsible mitigation under a watershed approach. Where permitted impacts are not in the service area of an approved mitigation bank or in-lieu fee program that has the appropriate number and resource type of credits available, permittee-responsible mitigation is the only option. Where practicable and likely to be successful and sustainable, the resource type and location for the required permittee-responsible compensatory mitigation should be determined using the principles of a watershed approach as outlined in paragraph (c) of this section.

(5) Permittee-responsible mitigation through on-site and in-kind mitigation. In cases where a watershed approach is not practicable, the permitting authority should consider opportunities to offset anticipated aquatic resource impacts by requiring on-site and in-kind compensatory mitigation. The permitting authority must also consider the practicability of on-site compensatory mitigation and its compatibility with the proposed project.

(6) Permittee-responsible mitigation through off-site and/or out-of-kind mitigation. If, after considering opportunities for on-site, in-kind compensatory mitigation as provided in paragraph (b)(5) of this section, the permitting authority determines that these compensatory mitigation opportunities are not practicable, are unlikely to compensate for the permitted impacts, or will be incompatible with the proposed project, and an alternative, practicable off-site and/or out-of-kind mitigation opportunity is identified that has a greater likelihood of offsetting the permitted impacts or is environmentally preferable to on-site or in-kind mitigation, the permitting authority should require that this alternative compensatory mitigation be provided.

(c) Watershed approach to compensatory mitigation.[28]

(1) The permitting authority must use a watershed approach to establish compensatory mitigation requirements in Orders as described in the main text of the Procedures. Where a watershed plan is available, the permitting authority will determine whether the plan meets the definition of watershed plan in the Procedures and therefore is appropriate for use in the watershed approach for compensatory mitigation. In cases where the permitting authority determines that an appropriate watershed plan is available, the watershed approach should be based on that plan. Where no such plan is available, the watershed approach should be based on information provided by the project sponsor or available from other sources. The ultimate goal of a watershed approach is to maintain and improve the abundance, diversity, and condition of aquatic resources within watersheds through strategic selection of compensatory mitigation sites.

(2) Considerations.

(i) A watershed approach to compensatory mitigation considers the importance of condition, landscape position and resource type of compensatory mitigation projects for the sustainability of aquatic resource functions within the watershed. Such an approach considers how the condition, types, and locations of compensatory mitigation projects will

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provide the desired aquatic resource functions, and will continue to function over time in a changing landscape. It also considers the habitat requirements of important species, habitat loss or conversion trends, sources of watershed impairment, and current development trends, as well as the requirements of other regulatory and non-regulatory programs that affect the watershed, such as storm water management or habitat conservation programs. It includes the protection and maintenance of terrestrial resources, such as non-wetland riparian areas and uplands, when those resources contribute to or improve the overall ecological functioning of aquatic resources in the watershed. Compensatory mitigation requirements determined through the watershed approach should not focus exclusively on specific functions (e.g., water quality or habitat for certain species), but should provide, where practicable, the suite of functions typically provided by the affected aquatic resource.

(ii) Locational factors (e.g., hydrology, surrounding land use) are important to the success of compensatory mitigation for impacted habitat functions and may lead to siting of such mitigation away from the project area. However, consideration should also be given to functions and services (e.g., water quality, flood control, shoreline protection) that will likely need to be addressed at or near the areas impacted by the permitted impacts.[29]

(iii) A watershed approach may include on-site compensatory mitigation, off-site compensatory mitigation (including mitigation banks or in-lieu fee programs), or a combination of on-site and off-site compensatory mitigation.

(iv) A watershed approach to compensatory mitigation should include, to the extent practicable, inventories of historic and existing aquatic resources, including identification of degraded aquatic resources, and identification of immediate and long-term aquatic resource needs within watersheds that can be met through permittee-responsible mitigation projects, mitigation banks, or in-lieu fee programs. Planning efforts should identify and prioritize aquatic resource restoration, establishment, and enhancement activities, and preservation of existing aquatic resources that are important for maintaining or improving ecological functions of the watershed. The identification and prioritization of resource needs should be as specific as possible, to enhance the usefulness of the approach in determining compensatory mitigation requirements.

(v) A watershed approach is not appropriate in areas where watershed boundaries do not exist, such as marine areas. In such cases, an appropriate spatial scale should be used to replace lost functions and services within the same ecological system (e.g., reef complex, littoral drift cell).

(3) Information Needs.

(i) In the absence of a watershed plan determined by the permitting authority under paragraph (c)(1) of this section to be appropriate for use in the watershed approach, the

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permitting authority will use a watershed approach based on analysis of information regarding watershed conditions (as identified in the watershed profile) and needs, including potential sites for aquatic resource restoration activities and priorities for aquatic resource restoration and preservation. Such information includes: Current trends in habitat loss or conversion; cumulative impacts of past development activities, current development trends, the presence and needs of sensitive species; site conditions that favor or hinder the success of compensatory mitigation projects; and chronic environmental problems such as flooding or poor water quality.

(ii) This information may be available from sources such as wetland maps; soil surveys; U.S. Geological Survey topographic and hydrologic maps; aerial photographs; information on rare, endangered and threatened species and critical habitat; local ecological reports or studies; and other information sources that could be used to identify locations for suitable compensatory mitigation projects in the watershed.

(iii) The level of information and analysis needed to support a watershed approach must be commensurate with the scope and scale of the proposed impacts requiring an Order, as well as the functions lost as a result of those impacts.

(4) Watershed Scale. The size of watershed addressed using a watershed approach should not be larger than is appropriate to ensure that the aquatic resources provided through compensation activities will effectively compensate for adverse environmental impacts resulting from activities authorized by Orders. The permitting authority should consider relevant environmental factors and appropriate locally-developed standards and criteria when determining the appropriate watershed scale in guiding compensation activities.

(d) Site selection.[30]

(1) The compensatory mitigation project site must be ecologically suitable for providing the desired aquatic resource functions. In determining the ecological suitability of the compensatory mitigation project site, the permitting authority must consider, to the extent practicable, the following factors:

(i) Hydrological conditions, soil characteristics, and other physical and chemical characteristics;

(ii) Watershed-scale features, such as aquatic habitat diversity, habitat connectivity, and other landscape scale functions;

(iii) The size and location of the compensatory mitigation site relative to hydrologic sources (including the availability of water rights) and other ecological features;

(iv) Compatibility with adjacent land uses and watershed management plans;

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(v) Reasonably foreseeable effects the compensatory mitigation project will have on ecologically important aquatic or terrestrial resources (e.g., shallow sub-tidal habitat, mature forests), cultural sites, or habitat for federally- or state-listed threatened and endangered species; and (vi) Other relevant factors including, but not limited to, development trends, anticipated land use changes, habitat status and trends, the relative locations of the impact and mitigation sites in the stream network, local or regional goals for the restoration or protection of particular habitat types or functions (e.g., re-establishment of habitat corridors or habitat for species of concern), water quality goals, floodplain management goals, and the relative potential for chemical contamination of the aquatic resources.

(2) Permitting authorities may require on-site, off-site, or a combination of on-site and off-site compensatory mitigation to replace permitted losses of aquatic resource functions and services.

(3) Applicants should propose compensation sites adjacent to existing aquatic resources or where aquatic resources previously existed.

(e) Mitigation type.

(1) In general, in-kind mitigation is preferable to out-of-kind mitigation because it is most likely to compensate for the functions and services lost at the impact site. For example, tidal wetland compensatory mitigation projects are most likely to compensate for unavoidable impacts to tidal wetlands, while perennial stream compensatory mitigation projects are most likely to compensate for unavoidable impacts to perennial streams. Thus, except as provided in paragraph (e)(2) of this section, the required compensatory mitigation shall be of a similar type to the affected aquatic resource.

(2) If the permitting authority determines, using the watershed approach in accordance with paragraph (c) of this section that out-of-kind compensatory mitigation will serve the aquatic resource needs of the watershed, the permitting authority may authorize the use of such out-of-kind compensatory mitigation. The basis for authorization of out-of-kind compensatory mitigation must be documented in the administrative record for the Order action.

(3) For difficult-to-replace resources (e.g., bogs, fens, springs, streams, vegetated seasonal wetlands, slope and seep wetlands, vernal pools, and wet meadows) if further avoidance and minimization is not practicable, the required compensation should be provided, if practicable, through in-kind rehabilitation, enhancement, or preservation since there is greater certainty that these methods of compensation will successfully offset permitted impacts.

(f) Amount of compensatory mitigation.

(1) If the permitting authority determines that compensatory mitigation is necessary to offset unavoidable impacts to aquatic resources, the amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. In cases where appropriate functional or condition assessment methods or other suitable metrics are available, these methods should be used where practicable to determine how much compensatory mitigation is required. If a functional or condition assessment or other suitable metric is not used, a minimum one-to-one acreage or linear foot compensation ratio must be used.

(2) The permitting authority must require a mitigation ratio greater than one-to-one where necessary to account for the method of compensatory mitigation (e.g., preservation), the

likelihood of success, differences between the functions lost at the impact site and the functions expected to be produced by the compensatory mitigation project, temporal losses of aquatic resource functions, the difficulty of restoring or establishing the desired aquatic resource type and functions, and/or the distance between the affected aquatic resource and the compensation site. The rationale for the required replacement ratio must be documented in the administrative record for the Order action.

(3) If an in-lieu fee program will be used to provide the required compensatory mitigation, and the appropriate number and resource type of released credits are not available, the permitting authority must require sufficient compensation to account for the risk and uncertainty associated with in-lieu fee projects that have not been implemented before the permitted impacts have occurred.

(g) Use of mitigation banks and in-lieu fee programs. Mitigation banks and in-lieu fee programs may be used to compensate for impacts to aquatic resources authorized by general Orders and individual Orders in accordance with the preference hierarchy in paragraph (b) of this section. Mitigation banks and in-lieu fee programs may also be used to satisfy requirements arising out of an enforcement action, such as supplemental environmental projects.

(h) Preservation.[31]

(1) Preservation may be used to provide compensatory mitigation for activities authorized by Orders when all the following criteria are met:

(i) The resources to be preserved provide important physical, chemical, or biological functions for the watershed;

(ii) The resources to be preserved contribute significantly to the ecological sustainability of the watershed. In determining the contribution of those resources to the ecological sustainability of the watershed, the permitting authority must use appropriate quantitative assessment tools where available;

(iii) Preservation is determined by the permitting authority to be appropriate and practicable;

(iv) The resources are under threat of destruction or adverse modifications; and

(v) The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust).

(2) Where preservation is used to provide compensatory mitigation, to the extent appropriate and practicable the preservation shall be done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities. This requirement may be waived by the permitting authority where preservation has been identified as a high priority using a watershed approach described in paragraph (c) of this section, but compensation ratios shall be higher.

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(i) Buffers. The permitting authority may require the restoration, establishment, enhancement, and preservation, as well as the maintenance, of riparian areas and/or buffers around aquatic resources where necessary to ensure the long-term viability of those resources. Buffers may also provide habitat or corridors necessary for the ecological functioning of aquatic resources. If buffers are required by the permitting authority as part of the compensatory mitigation project, compensatory mitigation credit will be provided for those buffers, as provided in section IV B.5 (c).

(j) Relationship to other federal, tribal, state, and local programs.

(1) Compensatory mitigation projects for Orders may also be used to satisfy the environmental requirements of other programs, such as tribal, state, or local wetlands regulatory programs, other federal programs such as the Surface Mining Control and Reclamation Act, Corps civil works projects, and Department of Defense military construction projects, consistent with the terms and requirements of these programs and subject to the following considerations:

(i) The compensatory mitigation project must include appropriate compensation required by the Order for unavoidable impacts to aquatic resources authorized by that Order.

(ii) Under no circumstances may the same credits be used to provide mitigation for more than one permitted activity. However, where appropriate, compensatory mitigation projects, including mitigation banks and in-lieu fee projects, may be designed to holistically address requirements under multiple programs and authorities for the same activity.

(2) Except for projects undertaken by federal agencies, or where federal funding is specifically authorized to provide compensatory mitigation, federally-funded aquatic resource restoration or conservation projects undertaken for purposes other than compensatory mitigation, such as the Wetlands Reserve Program, Conservation Reserve Program, and Partners for Wildlife Program activities, cannot be used for the purpose of generating compensatory mitigation credits for activities authorized by Orders. However, compensatory mitigation credits may be generated by activities undertaken in conjunction with, but supplemental to, such programs in order to maximize the overall ecological benefits of the restoration or conservation project.

(3) Compensatory mitigation projects may also be used to provide compensatory mitigation under the federal and state Endangered Species Act or for Natural Community Conservation Plans and Habitat Conservation Plans, as long as they comply with the requirements of paragraph (j)(1) of this section.

(k) Order conditions.

(1) The compensatory mitigation requirements for an Order, including the amount and type of compensatory mitigation, must be clearly stated in the special conditions of the individual Order or authorization to use the general Order. The special conditions must be enforceable.[32]

(2) For an Order that requires permittee-responsible mitigation, the special conditions must:

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(i) Identify the party responsible for providing the compensatory mitigation;

(ii) Incorporate, by reference, the final or draft mitigation plan approved by the permitting authority;

(iii) State the objectives, performance standards, and monitoring required for the compensatory mitigation project, unless they are provided in the approved final mitigation plan; and

(iv) Describe any required financial assurances or long-term management provisions for the compensatory mitigation project, unless they are specified in the approved final mitigation plan.

(4) If a mitigation bank or in-lieu fee program is used to provide the required compensatory mitigation, the special conditions must indicate whether a mitigation bank or in-lieu fee program will be used, and specify the number and resource type of credits the permittee is required to secure. In the case of an individual Order, the special condition must also identify the specific mitigation bank or in-lieu fee program that will be used. For authorizations to use a general Order, the special conditions may either identify the specific mitigation bank or in-lieu fee program, or state that the specific mitigation bank or in-lieu fee program used to provide the required compensatory mitigation must be approved by the permitting authority before the credits are secured.

(l) Party responsible for compensatory mitigation.

(1) For permittee-responsible mitigation, the special conditions of the Order must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project.

(3) If use of a mitigation bank or in-lieu fee program is approved by the permitting authority to provide part or all of the required compensatory mitigation for an Order, the permittee retains responsibility for providing the compensatory mitigation until the appropriate number and resource type of credits have been secured from a sponsor and the permitting authority has received documentation that confirms that the sponsor has accepted the responsibility for providing the required compensatory mitigation. This documentation may consist of a letter or form signed by the sponsor, with the Order number and a statement indicating the number and resource type of credits that have been secured from the sponsor. Copies of this documentation will be retained in the administrative records for both the Order and the instrument. If the sponsor fails to provide the required compensatory mitigation, the permitting authority may pursue measures against the sponsor to ensure compliance.[33]

(m) Timing. Implementation of the compensatory mitigation project shall be, to the maximum extent practicable, in advance of or concurrent with the activity causing the authorized impacts. The permitting authority shall require, to the extent appropriate and practicable, additional

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compensatory mitigation to offset temporal losses of aquatic functions that will result from the permitted activity.

(n) Financial assurances.

(1) The permitting authority shall require sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards. In cases where an alternate mechanism is available to ensure a high level of confidence that the compensatory mitigation will be provided and maintained (e.g., a formal, documented commitment from a government agency or public authority) the permitting authority may determine that financial assurances are not necessary for that compensatory mitigation project.

(2) The amount of the required financial assurances must be determined by the permitting authority, in consultation with the project sponsor, and must be based on the size and complexity of the compensatory mitigation project, the degree of completion of the project at the time of project approval, the likelihood of success, the past performance of the project sponsor, and any other factors the permitting authority deems appropriate. Financial assurances may be in the form of performance bonds, escrow accounts, casualty insurance, letters of credit, legislative appropriations for government sponsored projects, or other appropriate instruments, subject to the approval of the permitting authority. The rationale for determining the amount of the required financial assurances must be documented in the administrative record for either the Order or the instrument. In determining the assurance amount, the permitting authority shall consider the cost of providing replacement mitigation, including costs for land acquisition, planning and engineering, legal fees, mobilization, construction, and monitoring.

(3) If financial assurances are required, the Order must include a special condition requiring the financial assurances to be in place prior to commencing the permitted activity.[34]

(4) Financial assurances shall be phased out once the compensatory mitigation project has been determined by the permitting authority to be successful in accordance with its performance standards. The Order or instrument must clearly specify the conditions under which the financial assurances are to be released to the permittee, sponsor, and/or other financial assurance provider, including, as appropriate, linkage to achievement of performance standards, adaptive management, or compliance with special conditions.

(5) A financial assurance must be in a form that ensures that the permitting authority will receive notification at least 120 days in advance of any termination or revocation. For third-party assurance providers, this may take the form of a contractual requirement for the assurance provider to notify the permitting authority at least 120 days before the assurance is revoked or terminated.

(6) Financial assurances shall be payable at the direction of the permitting authority to his designee or to a standby trust agreement. When a standby trust is used (e.g., with performance bonds or letters of credit) all amounts paid by the financial assurance provider

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shall be deposited directly into the standby trust fund for distribution by the trustee in accordance with the permitting authority's instructions.

(o) Compliance with applicable law. The compensatory mitigation project must comply with all applicable federal, state, and local laws. The Order, mitigation banking instrument, or in-lieu fee program instrument must not require participation by the permitting authority in project management, including receipt or management of financial assurances or long-term financing mechanisms, except as determined by the permitting authority to be consistent with its statutory authority, mission, and priorities.

§ 230.94 Planning and documentation.

(a) Pre-application consultations. Potential applicants for Orders are encouraged to participate in pre-application meetings with the permitting authority and appropriate agencies to discuss potential mitigation requirements and information needs.

(c) Mitigation plan.

(1) Preparation and Approval.

(i) For individual Orders, the permittee must prepare a draft mitigation plan and submit it to the permitting authority for review prior to certification. After addressing any comments provided by the permitting authority, the permittee must prepare a final mitigation plan, which must be approved by the permitting authority prior to commencing work in waters of the state. The approved final mitigation plan must be incorporated into the individual Order either as an attachment or by reference. The final mitigation plan must include the items described in paragraphs (c)(2) through (c)(14) of this section, but the level of detail of the mitigation plan should be commensurate with the scale and scope of the impacts. As an alternative, the permitting authority may determine that it would be more appropriate to address any of the items described in paragraphs (c)(2) through (c)(14) of this section as Order conditions, instead of components of a compensatory mitigation plan. For permittees who intend to fulfill their compensatory mitigation obligations by securing credits from approved mitigation banks or in-lieu fee programs, their mitigation plans need include only the items described in paragraphs (c)(5) and (c)(6) of this section, and the name of the specific mitigation bank or in-lieu fee program to be used.[35]

(ii) For general Orders, if compensatory mitigation is required, the permitting authority may approve a conceptual or detailed compensatory mitigation plan to meet required time frames for general Order enrollments, but a final mitigation plan incorporating the elements in paragraphs (c)(2) through (c)(14) of this section, at a level of detail commensurate with the scale and scope of the impacts, must be approved by the permitting authority before the permittee commences work in waters of the state. As an alternative, the permitting authority may determine that it would be more appropriate to address any of the items described in paragraphs (c)(2) through (c)(14) of this section as Order conditions, instead of components of a compensatory mitigation plan. For permittees who intend to fulfill their

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compensatory mitigation obligations by securing credits from approved mitigation banks or in-lieu fee programs, their mitigation plans need include only the items described in paragraphs (c)(5) and (c)(6) of this section, and either the name of the specific mitigation bank or in-lieu fee program to be used or a statement indicating that a mitigation bank or in-lieu fee program will be used (contingent upon approval by the permitting authority).

(2) Objectives. A description of the resource type(s) and amount(s) that will be provided, the method of compensation (i.e., restoration, establishment, enhancement, and/or preservation), and the manner in which the resource functions of the compensatory mitigation project will address the needs of the watershed, ecoregion, physiographic province, or other geographic area of interest.

(3) Site selection. A description of the factors considered during the site selection process. This should include consideration of watershed needs, on-site alternatives where applicable, and the practicability of accomplishing ecologically self-sustaining aquatic resource restoration, establishment, enhancement, and/or preservation at the compensatory mitigation project site. (See § 230.93(d).)

(4) Site protection instrument. A description of the legal arrangements and instrument, including site ownership, that will be used to ensure the long-term protection of the compensatory mitigation project site (see § 230.97(a)).[36]

(5) Baseline information. A description of the ecological characteristics of the proposed compensatory mitigation project site and, in the case of an application for an Order, the impact site. This may include descriptions of historic and existing plant communities, historic and existing hydrology, soil conditions, a map showing the locations of the impact and mitigation site(s) or the geographic coordinates for those site(s), and other site characteristics appropriate to the type of resource proposed as compensation. The baseline information should also include a delineation of waters of the state on the proposed compensatory mitigation project site. A prospective permittee planning to secure credits from an approved mitigation bank or in-lieu fee program only needs to provide baseline information about the impact site, not the mitigation bank or in-lieu fee project site.

(6) Determination of credits. A description of the number of credits to be provided, including a brief explanation of the rationale for this determination. (See § 230.93(f).)

(i) For permittee-responsible mitigation, this should include an explanation of how the compensatory mitigation project will provide the required compensation for unavoidable impacts to aquatic resources resulting from the permitted activity.

(ii) For permittees intending to secure credits from an approved mitigation bank or in-lieu fee program, it should include the number and resource type of credits to be secured and how these were determined.

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(7) Mitigation work plan. Detailed written specifications and work descriptions for the compensatory mitigation project, including, but not limited to, the geographic boundaries of the project; construction methods, timing, and sequence; source(s) of water, including connections to existing waters and uplands; methods for establishing the desired plant community; plans to control invasive plant species; the proposed grading plan, including elevations and slopes of the substrate; soil management; and erosion control measures. For stream compensatory mitigation projects, the mitigation work plan may also include other relevant information, such as planform geometry, channel form (e.g., typical channel cross-sections), watershed size, design discharge, and riparian area plantings.

(8) Maintenance plan. A description and schedule of maintenance requirements to ensure the continued viability of the resource once initial construction is completed.

(9) Performance standards. Ecologically-based standards that will be used to determine whether the compensatory mitigation project is achieving its objectives. (See § 230.95.)

(10) Monitoring requirements. A description of parameters to be monitored in order to determine if the compensatory mitigation project is on track to meet performance standards and if adaptive management is needed. A schedule for monitoring and reporting on monitoring results to the permitting authority must be included. (See § 230.96.)[37]

(11) Long-term management plan. A description of how the compensatory mitigation project will be managed after performance standards have been achieved to ensure the long-term sustainability of the resource, including long-term financing mechanisms and the party responsible for long-term management. (See § 230.97(d).)

(12) Adaptive management plan. A management strategy to address unforeseen changes in site conditions or other components of the compensatory mitigation project, including the party or parties responsible for implementing adaptive management measures. The adaptive management plan will guide decisions for revising compensatory mitigation plans and implementing measures to address both foreseeable and unforeseen circumstances that adversely affect compensatory mitigation success. (See § 230.97(c).)

(13) Financial assurances. A description of financial assurances that will be provided and how they are sufficient to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with its performance standards (see § 230.93(n)).

(14) Other information. The permitting authority may require additional information as necessary to determine the appropriateness, feasibility, and practicability of the compensatory mitigation project.

§ 230.95 Ecological performance standards.

(a) The approved mitigation plan must contain performance standards that will be used to assess whether the project is achieving its objectives. Performance standards should relate to the objectives of the compensatory mitigation project, so that the project can be objectively evaluated

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to determine if it is developing into the desired resource type, providing the expected condition or functions, and attaining any other applicable metrics (e.g., acres).

(b) Performance standards must be based on attributes that are objective and verifiable. Ecological performance standards must be based on the best available science that can be measured or assessed in a practicable manner. Performance standards may be based on variables or measures of functional capacity or condition as described in assessment methodologies, measurements of hydrology or other aquatic resource characteristics, and/or comparisons to reference aquatic resources of similar type and landscape position. The use of reference aquatic resources to establish performance standards will help ensure that those performance standards are reasonably achievable, by reflecting the range of variability exhibited by the regional class of aquatic resources as a result of natural processes and anthropogenic disturbances. Performance standards based on measurements of hydrology should take into consideration the hydrologic variability exhibited by reference aquatic resources, especially wetlands. Where practicable, performance standards should take into account the expected stages of the aquatic resource development process, in order to allow early identification of potential problems and appropriate adaptive management.

§ 230.96 Monitoring.[38]

(a) General.

(1) Monitoring the compensatory mitigation project site is necessary to determine if the project is meeting its performance standards, and to determine if measures are necessary to ensure that the compensatory mitigation project is accomplishing its objectives. The submission of monitoring reports to assess the development and condition of the compensatory mitigation project is required, but the content and level of detail for those monitoring reports must be commensurate with the scale and scope of the compensatory mitigation project, as well as the compensatory mitigation project type. The mitigation plan must address the monitoring requirements for the compensatory mitigation project, including the parameters to be monitored, the length of the monitoring period, the party responsible for conducting the monitoring, the frequency for submitting monitoring reports to the permitting authority, and the party responsible for submitting those monitoring reports to the permitting authority.

(2) The permitting authority may conduct site inspections on a regular basis (e.g., annually) during the monitoring period to evaluate mitigation site performance.

(b) Monitoring period. The mitigation plan must provide for a monitoring period that is sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years. A longer monitoring period must be required for aquatic resources with slow development rates (e.g., forested wetlands, bogs). Following project implementation, the permitting authority may reduce or waive the remaining monitoring requirements upon a determination that the compensatory mitigation project has achieved its performance standards. Conversely the permitting authority may extend the original monitoring period upon a determination that performance standards have not been met or the compensatory mitigation

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project is not on track to meet them. The permitting authority may also revise monitoring requirements when remediation and/or adaptive management is required.

(c) Monitoring reports.

(1) The permitting authority must determine the information to be included in monitoring reports. This information must be sufficient for the permitting authority to determine how the compensatory mitigation project is progressing towards meeting its performance standards, and may include plans (such as as-built plans), maps, and photographs to illustrate site conditions. Monitoring reports may also include the results of functional, condition, or other assessments used to provide quantitative or qualitative measures of the functions provided by the compensatory mitigation project site.

(2) The permittee or sponsor is responsible for submitting monitoring reports in accordance with the special conditions of the Order or the terms of the instrument. Failure to submit monitoring reports in a timely manner may result in compliance action by the permitting authority.

(3) Monitoring reports must be provided by the permitting authority to interested federal, tribal, state, and local resource agencies, and the public, upon request.

§ 230.97 Management.[39]

(a) Site protection.

(1) The aquatic habitats, riparian areas, buffers, and uplands that comprise the overall compensatory mitigation project must be provided long-term protection through real estate instruments or other available mechanisms, as appropriate. Long-term protection may be provided through real estate instruments such as conservation easements held by entities such as federal, tribal, state, or local resource agencies, non-profit conservation organizations, or private land managers; the transfer of title to such entities; or by restrictive covenants. For government property, long-term protection may be provided through state or federal facility management plans or integrated natural resources management plans. When approving a method for long-term protection of non-government property other than transfer of title, the permitting authority shall consider relevant legal constraints on the use of conservation easements and/or restrictive covenants in determining whether such mechanisms provide sufficient site protection. To provide sufficient site protection, a conservation easement or restrictive covenant should, where practicable, establish in an appropriate third party (e.g., governmental or non-profit resource management agency) the right to enforce site protections and provide the third party the resources necessary to monitor and enforce these site protections.

(2) The real estate instrument, management plan, or other mechanism providing long-term protection of the compensatory mitigation site must, to the extent appropriate and practicable, prohibit incompatible uses (e.g., clear cutting or mineral extraction) that might otherwise

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jeopardize the objectives of the compensatory mitigation project. Where appropriate, multiple instruments recognizing compatible uses (e.g., fishing or grazing rights) may be used.

(3) The real estate instrument, management plan, or other long-term protection mechanism must contain a provision requiring 60–day advance notification to the permitting authority before any action is taken to void or modify the instrument, management plan, or long-term protection mechanism, including transfer of title to, or establishment of any other legal claims over, the compensatory mitigation site.

(4) For compensatory mitigation projects on public lands, where state or Federal facility management plans or integrated natural resources management plans are used to provide long-term protection, and changes in statute, regulation, or agency needs or mission results in an incompatible use on public lands originally set aside for compensatory mitigation, the public agency authorizing the incompatible use is responsible for providing alternative compensatory mitigation that is acceptable to the permitting authority for any loss in functions resulting from the incompatible use.[40]

(5) A real estate instrument, management plan, or other long-term protection mechanism used for site protection of permittee-responsible mitigation must be approved by the permitting authority in advance of, or concurrent with, the activity causing the authorized impacts.

(b) Sustainability. Compensatory mitigation projects shall be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context will support long-term sustainability. Where active long-term management and maintenance are necessary to ensure long-term sustainability (e.g., prescribed burning, invasive species control, maintenance of water control structures, easement enforcement), the responsible party must provide for such management and maintenance. This includes the provision of long-term financing mechanisms where necessary. Where needed, the acquisition and protection of water rights must be secured and documented in the Order conditions or instrument.

(c) Adaptive management.

(1) If the compensatory mitigation project cannot be constructed in accordance with the approved mitigation plans, the permittee or sponsor must notify the permitting authority. A significant modification of the compensatory mitigation project requires approval from the permitting authority.

(2) If monitoring or other information indicates that the compensatory mitigation project is not progressing towards meeting its performance standards as anticipated, the responsible party must notify the permitting authority as soon as possible. The permitting authority will evaluate and pursue measures to address deficiencies in the compensatory mitigation project. The permitting authority will consider whether the compensatory mitigation project is providing ecological benefits comparable to the original objectives of the compensatory mitigation project.

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(3) The permitting authority, in consultation with the responsible party (and other federal, tribal, state, and local agencies, as appropriate), will determine the appropriate measures. The measures may include site modifications, design changes, revisions to maintenance requirements, and revised monitoring requirements. The measures must be designed to ensure that the modified compensatory mitigation project provides aquatic resource functions comparable to those described in the mitigation plan objectives.[41]

(4) Performance standards may be revised in accordance with adaptive management to account for measures taken to address deficiencies in the compensatory mitigation project. Performance standards may also be revised to reflect changes in management strategies and objectives if the new standards provide for ecological benefits that are comparable or superior to the approved compensatory mitigation project. No other revisions to performance standards will be allowed except in the case of natural disasters.

(d) Long-term management.

(1) The Order conditions or instrument must identify the party responsible for ownership and all long-term management of the compensatory mitigation project. The Order conditions or instrument may contain provisions allowing the permittee or sponsor to transfer the long-term management responsibilities of the compensatory mitigation project site to a land stewardship entity, such as a public agency, non-governmental organization, or private land manager, after review and approval by the permitting authority. The land stewardship entity need not be identified in the original Order or instrument, as long as the future transfer of long-term management responsibility is approved by the permitting authority.

(2) A long-term management plan should include a description of long-term management needs, annual cost estimates for these needs, and identify the funding mechanism that will be used to meet those needs.

(3) Any provisions necessary for long-term financing must be addressed in the original Order or instrument. The permitting authority may require provisions to address inflationary adjustments and other contingencies, as appropriate. Appropriate long-term financing mechanisms include non-wasting endowments, trusts, contractual arrangements with future responsible parties, and other appropriate financial instruments. In cases where the long-term management entity is a public authority or government agency, that entity must provide a plan for the long-term financing of the site.

(4) For permittee-responsible mitigation, any long-term financing mechanisms must be approved in advance of the activity causing the authorized impacts.

[41] Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.