

PRELIMINARY DRAFT

WATER QUALITY CONTROL POLICY

for

Wetland Area Protection and Dredged or fill Permitting

STATE WATER RESOURCES CONTROL BOARD

January 28, 2013

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22 I. Introduction

23 The Water Boards (California State Water Resources Control Board and the Regional Water 24 Quality Control Boards collectively) have the responsibility to preserve, enhance, and restore 25 the quality of California's aquatic resources, including wetlands, for present and future 26 generations. California's wetlands provide both environmental and economic benefits to the people of this state. California's diverse array of wetlands provide flood and storm water 27 28 control, surface and ground water supply, fish and wildlife habitat, erosion control, pollution 29 treatment, nutrient cycling, and public enjoyment. Wetlands ameliorate the effects of global 30 climate change by providing floodwater storage, sequestering carbon, and maintaining 31 vulnerable plant and animal communities. More than 85 percent of these invaluable areas 32 statewide have been lost to human land uses, including fill and development. Presently, wetlands are threatened by impacts from increasing population growth, land development, sea 33 34 level rise, and climate change. In response to these conditions, the Governor issued Executive 35 Order W-59-93. Commonly referred to as the "No Net Loss Policy" for wetlands, this Executive 36 Order establishes the intent of the state to develop and adopt a policy framework and strategy 37 to protect the state's wetland ecosystems. In accordance with Executive Order W-59-93, it is the intent of Water Boards that there be no net loss of wetlands. The Water Boards are 38 39 committed to increasing the quantity, quality, and diversity of wetlands.

Traditionally, California relied heavily on the federal regulatory program under section 404 of the
Clean Water Act (CWA) to protect wetlands. This CWA program regulates the discharge of
dredged or fill material into federal waters, including wetlands. United States Supreme Court
decisions in 2001 and again in 2006 limited what is recognized as a "water of the United
States." As a result, there is a need to clarify the California Water Board's authority over
wetlands in order to fully protect these aquatic resources.

46 **1. Applicability of the Policy**

47 Pursuant to California Water Code §13050, this policy applies to all waters of the state. Waters48 of the state include wetlands.

49 **2. Policy Purpose and Elements**

50 A. Purpose of Policy

- 51 The purpose of the Policy is to:
- Advance statewide efforts to ensure no overall net loss and a long-term net gain in the quantity, quality and sustainability of wetlands in California in a manner that fosters creativity, stewardship, and respect for private property (Executive Order W-59-93-Calfiornia's "No Net Loss" Policy).
- Support the Water Board's environmental priorities for protecting and enhancing
 California's vital wetland areas through watershed-based regulatory and monitoring
 strategies.

- 59 3) Establish a uniform regulatory approach consistent with the federal CWA section 404
 60 program for the discharge of dredged or fill material into waters of the state, including
 61 wetland areas.
- 4) Promote a common framework for wetland area monitoring and assessment to inform
 regulatory decisions and ensure consistency with statewide environmental reporting
 programs.
- 5) Enhance the Water Board's capabilities to support efforts of other agencies and groups in the conservation planning of watersheds, wetlands, and other aquatic resources.

67 **B.** Policy Elements

- 68 The Policy includes the following key elements:
- 1) A wetland definition that reliably defines the diverse array of California wetlands;
- 2) Wetland delineation procedures based on the methods of the Corps;
- Procedures for the review and approval of discharges of dredged or fill material into
 waters of the state, including wetlands, regardless of whether a federal permit is
 required.

74 3. Authority

75 The Water Boards are the state agencies with the primary authority to ensure that the quality of 76 all waters of the State are protected for the use and enjoyment by California's citizens. The 77 tools used by the Water Boards to complete this task stem from both federal and state law. 78 Federal law and its application over waters of the U.S. have proven insufficient to protect the 79 diverse array of California's wetlands. The authorities delegated by Congress pursuant to the CWA are limited to "navigable waters." In recent years, that term and its implementing 80 regulations have been modified and limited by judicial interpretation and administrative 81 82 application. This places the precise extent of federal jurisdiction in a state of flux and the subject of continued modification. 83

In California, the primary authority for protection of water resources is the Porter-Cologne Water
Quality Control Act. The jurisdictional reach of Porter-Cologne is quite clear; it extends to all
"waters of the state." That term is defined as "any surface water or groundwater, including
saline waters, within the boundaries of the state."¹ Because Porter-Cologne applies to any
water and the CWA only applies to certain waters, California's jurisdictional reach is broader
and more comprehensive under Porter-Cologne than under the CWA. Thus, within California's
boundaries, "waters of the U.S." represent a subset of "waters of the state."

¹ Wat. Code, § 13050, subd. (e) (emphasis added).

Under Porter-Cologne, the State Water Board is charged with the adoption of state policy for
 water quality control.² These policies "may address any activity or factor which may affect the
 quality of the waters of the state" and are binding on all state agencies unless otherwise
 directed or authorized by statute.³

95 State policies for water quality control must comport with the policies set forth in section 13000 96 of the Water Code. These policies include legislative declarations that "the quality of all of the 97 waters of the state shall be protected for use and enjoyment by the people of the state" and that 98 "the state must be prepared to exercise its full power and jurisdiction to protect quality of waters 99 in the state from degradation." ⁴ Loss of wetlands may significantly affect the water quality of 9100 other waters in hydraulic continuity with those wetlands. EPA regulations observe:

101Disruption or elimination of the wetland system can degrade water quality by obstructing102circulation patterns that flush large expanses of wetland systems, by interfering with the103filtration function of wetlands, or by changing the aquifer recharge capability of a104wetland. ... Discharging fill material in wetlands as part of municipal, industrial or105recreational development may modify the capacity of wetlands to retain and store106floodwaters and to serve as a buffer zone shielding upland areas from wave actions,107storm damage and erosion. 5

When wetlands are defined in accordance with the federal definition, ⁶ the wetlands themselves 108 are "waters of the state." ⁷ Thus, a policy for water quality control may include provisions 109 intended to avoid loss of wetlands, both to protect the beneficial uses and water quality of other 110 111 water bodies and to protect the beneficial uses and water quality of the wetlands themselves. 112 Certain California wetlands may fall outside of the federal definition because of our state's 113 unique and diverse geography. However, as hydrology, or at least the periodic presence of 114 water, is the dominant factor in the development and existence of all California wetlands, certain wetlands do not meet the federal definition but still constitute a "water of the state." ⁸ 115 116 Alternatively, these wetlands are still subject to this policy for water quality control, because 117 these wetlands constitute areas that affect the chemical, physical, biological, and other 118 characteristics of the waters of the state.

8 California courts have long recognized that a constant flow of water is not required to show the existence of a watercourse. (See *Mogle v. Moore* (1940) 16 Cal.2d 1.)

² Wat. Code, § 13140.

³ Wat. Code, §§ 13050, subd (i) (emphasis added), 13146. If a state agency claims that they are so authorized, they must provide to the State Water Board, in writing, their authority for not complying with this Policy.

⁴ Wat. Code, § 13000.

^{5 40} C.F.R. § 230.41(b).

^{6 33} C.F.R. § 328.3(b); 40 C.F.R. § 230.3(u).

⁷ See 40 C.F.R. § 230.3(s)-(t) ("waters" include "wetlands"); Wat. Code, § 13050, subd. (e) (defining "waters of the state" more broadly than EPA defines "waters of the United States").

119 II. Wetland Definition and the Scientific Basis

The Water Boards recognize the diversity of wetlands in this state created by the varied climate, geology, and cultural influences. The following definition encompasses the full range of all conditions of all wetlands commonly recognized in California, and can also be translated into a standard field-based delineation of wetland boundaries. This definition is not intended to modify or expand the jurisdiction or otherwise affect the statutory or regulatory authorities of the Water Boards.

126 **1. Wetland Definition**

127 The Water Boards define a wetland area 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 either lacks vegetation or the vegetation is dominated by hydrophytes.

133 2. Scientific Basis

This definition reflects current scientific understanding of the formation and functioning of wetlands. Hydrology is the dominant factor in wetland formation and persistence because it controls the development of anaerobic substrate conditions, which, in turn, influences the occurrence of plants and animals that tolerate such conditions. The definition incorporates these three essential wetland characteristics: hydrology, substrate, and vegetation.

139 While application of the definition to identify or delineate wetlands requires consideration of 140 vegetation, it does not require that vegetation be present in every wetland. Places lacking 141 vegetation but otherwise meeting the hydrology and substrate criteria for wetlands are defined 142 as wetlands. Such areas provide the hydrological and ecological services and beneficial uses 143 that distinguish wetlands from other places. Wetlands can naturally lack vegetation for many 144 reasons such as aridity and intolerable physiochemical or biotic conditions. Tidal flats, playas, 145 some river bars, and shallow non-vegetated ponds are common kinds of non-vegetated 146 wetlands.

147 III. Wetland Area Delineation Procedures

148 The Water Boards shall review delineations, and field verify as appropriate. However, the

149 Water Boards shall rely on the Corps' approved wetland delineation within the boundaries of the 150 waters of the United States

- 150 waters of the United States.
- 151 Wetland delineations shall be based on indicators of wetland hydrology, hydric substrates, and
- 152 hydrophytic vegetation using the methods described in the three federal documents listed below
- 153 to determine the boundaries of wetland areas (collectively referred to as "1987 Manual and
- 154 Supplements").

155 **1. Wetland Delineation Materials**

156 A. Corps' 1987 Manual

- 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.
- 160 **B. Corps' Supplements**
- 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).
 d. 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.

2. Adjustments to the Corps' Wetland Delineation Procedures

- As necessary, the procedures in the 1987 Manual and Supplements shall be adjusted
 appropriately to allow for the delineation of non-vegetated wetlands, as defined under the Water
 Boards wetland definition.
- 173 In addition to the methods described in the 1987 Manual and Supplements, supplemental field 174 data from the wet season may be needed to substantiate wetland delineations conducted in the 175 dry season. This would apply in areas where wetland indicators are especially difficult to 176 resolve, or where the delineations are potentially contentious.

177 IV. Watershed Approach

- The Water Boards shall use a watershed approach for the review and approval of discharges of dredged or fill material into waters of the state. Applying the watershed approach helps avoid authorizing impacts and any associated compensatory mitigation that would adversely affect a significant portion of the wetlands and other waters of a particular type within a watershed.
- A watershed approach considers that the abundance, diversity, and conditions of aquatic resources in a watershed support the beneficial uses of waters of the state. Water Board decisions shall be made in ways that sustain and improve these three attributes of aquatic resources. Consideration is also given to historical and potential aquatic resource conditions, projected future aquatic resource impacts in the watershed, and terrestrial connections between aquatic resources. When making decisions, the Water Boards will consider applicable
- 188 watershed and regional plans that coordinate the planning, use, and protection of aquatic

resources and other environmental resources. Watershed and regional plans include HabitatConservation Plans and Natural Community Conservation Plans.

191 Monitoring and assessment information plays an important role in the implementation of the

192 watershed approach. The Water Boards shall cooperate in achieving the goals of the California

193 Water Quality Monitoring Council (monitoring council) in the collection and reporting of water

194 quality data and information pursuant to Water Code section 13181. This includes

195 implementing guidance, methods, and plans endorsed or directed by the monitoring council for

196 monitoring and assessment of wetland and riparian areas.

197 V. Additional Procedures for Dredged or Fill Discharges

This Policy establishes standardized procedures for use by the Water Boards in the review and approval of applications for any activity which may result in a discharge of dredged or fill material into waters of the state, including wetlands. For the purposes of consistency with the CWA section 404 program, certain project activities and areas described in subsection V.1. below are excluded from these procedures for both federal and non-federal jurisdictional waters. Otherwise, these Procedures are applicable to the protection of all waters of the state, including wetlands.

These procedures are intended to complement regulations in California Code of Regulations, title 23, sections 3830-3869 addressing the federal CWA section 401 water quality certification program. As such, these procedures apply to federal jurisdictional waters. In addition, with the exception of exclusions described subsection V.1., these procedures also apply to non-federal jurisdictional waters for projects not requiring a federal license or permit. Nothing in these procedures are intended to diminish, modify or otherwise affect the statutory or regulatory authorities of the Water Boards.

212 **1. Excluded Activities and Areas**

Except as provided in subsection C of this section, there are certain activities and areas that are not subject to the provisions of this section.

215 A. Activities Not Subject to Procedures.

216 Activities Exempt Under the CWA Section 404(f). Exemptions from CWA section 404 217 permits contained in CWA Section 404(f) are also excluded from these Dredge and Fill 218 Procedures. The following federal regulations, guidance letters, memoranda of 219 agreement, and other provisions established by a federal agency that have been 220 promulgated or adopted pursuant to section 33 United States Code (USC) 1344 (f) or 221 that are used to interpret or implement section 33 USC 1344 (f) shall be used when 222 determining whether certain activities are excluded from these Dredge and Fill 223 Procedures and are hereby incorporated by reference and shall apply to all waters of the 224 state.

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a.	Code of Federal Regulations (C.F.R.).	Corps Program Regulations 33 C.F.R. 320-
	331 and USEPA Program Regulations	40 C.F.R. 232 as listed in Table 1.

Table 1		
C.F.R. References		

Title	Part	Name
33 C.F.R.	Part 320	General Regulatory Policies – July 1, 2012 Edition
33 C.F.R.	Part 323	Permits for Discharges of Dredged or Fill Material Into Waters of the United States – July 1, 2012 Edition
33 C.F.R.	Part 328	Definition of Waters of the United States – July 1, 2012 Edition
40 C.F.R.	Part 232	404 Program Definitions; Exempt Activities Not Requiring 404 Permits – July 1, 2012 Edition

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

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Table 2 Applicable Corps Regulatory Guidance Letters (RGLs)

b. Corps Regulatory Guidance Letters as listed in Table 2.

RGLs	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	
87-07	Exemption for Drainage Ditch Maintenance	
87-09	Exemption for Construction or Maintenance of Farm or Stock Ponds	
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.	
Note: The documents in Table 2 are available at the following website 11.5. Army Corps of Engineers		

allable at the following edsite. I Regulatory Program and Permits, Related Resources, Regulatory Guidance Letters webpage: http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/GuidanceLetters.aspx

- c. Memoranda of Understanding and Agreement.
 - Memorandum for the Field: Clean Water Act Section 404 Regulatory Program and Agricultural Activities (USEPA and Department of the Army)

Note: This document is available at the following website, 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/M

OUMOAs.aspx

248 **B. Areas Not Subject to Procedures.**

- Prior converted cropland. Wetland areas that have been determined to be priorconverted cropland by the Natural Resources Conservation Service, and the determination has been certified, are excluded from this procedures.
- 252 Constructed treatment wetlands. Constructed treatment wetlands are limited to facilities 253 located in areas that did not historically support wetlands or other aquatic resources, 254 unless designed to restore a degraded or former wetland. Constructed wetlands that would adversely impact the continued functioning of the waters of the state are not 255 256 authorized. If no maintenance activity has occurred or is scheduled within five 257 consecutive years, and wetland conditions persist, than the wetland area is considered abandoned and is no longer eligible for exclusion from these procedures. Actively 258 259 maintained constructed treatment wetlands are generally regulated under WDRs or 260 waivers of WDRs.
- 261 3) Certain aquatic areas determined not to be a water of the state, such as treatment
 262 wetlands and sedimentation/storm water detention basins. These areas are excluded
 263 from these procedures if the facilities are operated and maintained in conformance with
 264 appropriate operation and maintenance protocols. These exclusions and the required
 265 operations and maintenance protocols are specified in State or Regional Water Board
 266 Orders.

267 C. Inapplicability of Exclusions

- Any discharge incidental to any of the excluded activities listed in subsections V.1.(A)
 which (1) brings an area or part of an area of a water of the state into a use to which it
 was not previously subject; (2) where the flow or circulation may be impacted; or, (3) the
 reach of such water is reduced shall be required to obtain a permit pursuant to this
 Policy. Where the proposed discharge will result in significant discernible alterations to
 flow or circulation, the presumption is that flow or circulation may be impaired by such
 alteration.
- 275 2) Additionally, any potential discharge of dredged or fill material containing any toxic
 276 pollutant listed under 40 C.F.R. section 131.38 shall be subject to any applicable toxic
 277 effluent standard or prohibition, and shall be subject to all requirements of the CWA and
 278 the Water Code.
- 3) No provision of this section is a limitation on the State Water Board or a Regional Water
 Board issuing or waiving WDRs for the activities or areas described above in
 subsections V.1.(A) and V.1.(B) in accordance with the Water Code.
- Any activity or area excluded may still be subject to other local, state, or federal requirements.
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285 **2. Application Submittal**

286 A. Adaptability

The level of detail of the information required in the application and during the project review and approval process may need to be adjusted as appropriate to the size and complexity of the project. Generally, the level of effort that the applicant of a project should expend on testing, evaluation, or analysis of alternatives will be commensurate with the complexity and significance of that project's potential threats to water quality and beneficial uses. The Water Boards shall determine the level of detail and documentation necessary to evaluate the extent and nature of the potential impacts to water quality or beneficial uses.

2941) Separate Information Requirements for Ecological Restoration Projects or295Projects With Minimal Impacts

- The following project information shall be waived for Ecological Restoration Projects or projects with Minimal Impacts unless determined necessary by the Water Boards.
- a. Application information required by these procedures that duplicates other federal or
 state agency project application submittals or agreements, provided that all
 application information required by these procedures is clearly identified.
- 301b. Formal delineation maps, unless required for mitigation purposes, provided the
project maps or plans have sufficient detail for a permitting decision.

303 2) Alternative Analysis for Projects With Minimal Impacts

304For projects with Minimal Impacts, the Water Boards shall waive the requirement for an305analysis of practicable alternatives under subsection 3.A(1) below, either in part, to306eliminate consideration of alternative locations for projects which by their nature cannot307be located in alternate locations (e.g., bank stabilization projects); or, in full.

308 3) Alternative Analysis for Specific Classes of Projects

- 309The following classes of projects shall be waived from an analysis of practicable310alternatives under subsection 3(A)(1) in full:
- 311a. Projects that meet the eligibility requirements for any "general" WDR (except State312Water Board Order No. 2003-0017-DWQ)or certification action that a Water Boards313may take within its own geographic area of jurisdiction on discharges resulting from a314class or classes of activities.
- b. Projects conducted in accordance with watershed plans or other regional plans that
 have been reviewed and approved by the Water Boards and include regional
 compensatory mitigation provisions.

318 c. Ecological Restoration Projects

319 **B.** Contents of a Complete Application:

- A complete application shall include the following items in addition to the items listed in California Code of Regulations, title 23, section 3856 "Contents of a Complete Application":
- 322 1) Additional Project Description Information
- If the project includes non-federal waters, then provide impact estimates and the proposed
 compensatory mitigation for these waters in addition to waters of the United States
 pursuant to California Code of Regulations, title 23, section 3856 (h) (July 1, 2012).
- 326 2) A Preliminary Delineation Report
- For delineations of waters of the U.S., the preliminary delineation report submitted to the Corps shall be submitted to the Water Boards.

329 3) Discharge Type

- A full description of the type of discharge resulting from the activity, including but not limited to:
- a. The date or dates upon which the activity will begin and end, if known, and the date
 or dates upon which the discharge will take place;
- b. The amount or volume of discharge to waters of the state; and
- 335 c. The physical, biological, chemical, thermal, and other properties of the discharge.

336 4) Design Objective

A description of the design objective, operation, and degree of treatment expected to be
attained from equipment, facilities, or activities (including construction and postconstruction storm water treatment) to treat waste and reduce runoff or other effluents
which may be discharged.

5) Monitoring

A description of the methods being used or proposed to monitor the quality and
characteristics of the discharge and the operation of equipment, and facilities; activities
employed in the treatment or control of waste; and any proposed mitigation plan.

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347 6) Ecological Condition Assessment

Information sufficient to verify the ecological condition of any water body proposed to
 receive a discharge of dredged or fill material. A condition assessment of a proposed
 project site(s) shall use an appropriate assessment method, subject to the concurrence of
 the Water Boards. The condition assessment data should be developed and electronically
 filed in accordance with the State Water Board's procedures.

353 7) Practicable Alternatives Analysis

354 If required by the Water Boards, an analysis of the practicable alternatives to the proposed 355 activity identifying the project as the least environmentally damaging practicable alternative. 356 The analysis shall include an assessment of the viability of any alternatives, including 357 alternative locations, construction design and methods, operations, and consideration of 358 any available watershed or other regional conservation plans. The applicant should consult 359 with the water board regarding this requirement for the proposed project. If an alternatives 360 analysis is required by the Corps' for their determination, then the applicant is advised to coordinate the development of the analysis with the Water Boards. 361

362 8) Map

A map(s) or sketch(es) of sufficient detail to accurately delineate the boundaries of the lands owned or to be utilized by the applicant in carrying out its activity; the location, dimensions and type of any structures erected or to be erected on said lands for use in connection with the activity; and the location and extent of the receiving waters including wetlands within the boundaries of said lands.

368 9) Draft Mitigation Monitoring and Reporting Plan (if applicable)

For projects requiring compensatory mitigation, the applicant shall submit a draft mitigation and reporting plan for staff review. After addressing any comments provided by staff, the applicant shall prepare a final mitigation and reporting plan which must be approved by the Water Boards prior to issuing a permit. The approved final mitigation and reporting plan shall be incorporated into the permit by reference. The mitigation and reporting plan shall include all items discussed in subsection 4.C. below.

375 **3. Factual Determinations**

The Water Boards shall evaluate the proposed project impacts on the aquatic environment, both individually and cumulatively, by applying the environmental compliance measures.

378 A. Environmental Compliance Measures

- 379 The environmental compliance measures identified below support the sustainability and
- 380 improvement of aquatic resources in a watershed. The Water Boards shall determine if the 381 proposed activity complies with these measures.

382 **1) Avoidance and Minimization**

383 The proposed project shall avoid and minimize adverse impacts to the aquatic environment 384 to the maximum extent practicable. For projects with complex environmental impacts, the 385 Water Boards shall apply the procedures of the 404(b)(1)Guidelines for project alternatives 386 analysis. Pursuant to section 1(A) above ("Adaptability"), it is not intended that the 387 404(b)(1)Guidelines be applied to proposed projects that, by virtue of size, scope and 388 nature, would potentially cause only minor threats to water quality or beneficial uses. The 389 Water Boards shall determine that the proposed project complies with the procedures of the 390 404(b)(1) Guidelines for alternatives analysis if the applicant has shown all of the following 391 in order of sequence:

- a) First, the overall project purpose cannot be practically accomplished in a manner
 which would avoid or result in less adverse impacts to aquatic resources considering
 all potential practicable alternatives, such as the potential for alternate available
 locations, designs, reductions in size, configuration or density ; and
- b) Second, if the avoidance requirement has been met, then all practicable steps have
 been taken to minimize unavoidable, potentially adverse effects so that aquatic
 resources are able to continue to support the existing beneficial uses after project
 completion to the maximum extent possible; and
- 400 c) Finally, if all requirements for avoidance and minimization have been met, then
 401 compensatory mitigation of unavoidable losses of existing beneficial uses and
 402 aquatic resource functions are provided.

403 **2) Degradation of Waters of the State**

The project will not result in a significant degradation of ground waters or surface waters, or
cause a violation of statewide Water Quality Control Plans and Policies, or Regional Water
Board Water Quality Control Plans;

407 **3) Cumulative Impacts**

The project will not result in cumulative impacts, based upon past or reasonably anticipated future impacts that cause or will cause a violation of downstream water quality objectives or other appropriate requirements of state law. This specification is presumed to be attained with a determination that the project will not significantly affect the overall abundance, diversity and condition of aquatic resources in project watershed area, and as compared against other project alternatives;

414 4) Attainment of Water Quality Objectives

- 415 The project will (If applicable) provide for attainment of downstream water quality objectives
- and other appropriate requirements of state law through stormwater and other controlmeasures; and

418 **5)** Compensatory Mitigation

The project will (If applicable) provide for replacement of existing beneficial uses through compensatory mitigation. This specification is presumed to be attained with a determination that compensatory mitigation will sustain and improve the overall abundance, diversity and condition of aquatic resources in a project watershed area.

423 B. Watershed Plans

The Water Boards may consider applicable watershed and regional plans as meeting the
environmental compliance measures for individual projects if such plans adequately coordinate
and balance the planning, use, and protection of aquatic resources. Watershed and regional
plans include, but are not limited to, Habitat Conservation Plans and Natural Community
Conservation Plans. For a watershed or regional plan to be considered, it must:

- 429 1) Ensure watershed scale protection of all beneficial uses provided by waters within its geographic scope;
- 431 2) Have been evaluated in an approved environmental document containing an analysis of
 432 potential individual and cumulative effects on a watershed scale;
- 433 3) Include appropriate provisions for monitoring for adaptive management purposes,
 434 reporting, and enforcement; and,
- 435 4) Comport with all applicable water quality control plans.

436 **4. Compensatory Mitigation Requirements**

437 A. General Requirements

438 Compensatory mitigation of unavoidable losses of aquatic resources shall be reviewed in 439 accordance with this section. Mitigation requirements prescribed by the Water Boards shall 440 comport with the 404(b)(1)Guidelines (40 CFR, Subpart J), except as may be modified herein. In addition, the Water Boards shall consult and coordinate mitigation requirements with other 441 442 public agencies that have concurrent aquatic resource jurisdiction. However, the Water 443 Boards's determination shall be based on the California Water Code (Water Code), applicable water quality objectives, and other appropriate requirements of state law. In reviewing and 444 approving compensatory mitigation plans, the Water Boards shall consider the following goals in 445 446 determining the sufficiency of a compensatory mitigation plan:

- 447 1) Achievement of no net loss and a long-term net gain in the quality and quantity of
 448 aquatic resources, including their abundance, diversity and condition;
- Restoration and achievement of past, present, and probable future beneficial uses in the
 project area and/or project watershed area, based on an analysis of current and historic
 conditions; and

452 3) Other requirements and goals established in local watershed plans, other local
453 community development plans, or policy instruments adopted by public agencies (as
454 described in subsection 2(B) above).

455 **B. Other Considerations**

456 **1) Restoration Projects**

The Water Boards shall waive compensatory mitigation requirements for EcologicalRestoration Projects.

459 **2) Mitigation types and location**

460 The Water Boards shall determine the environmentally preferable mitigation type and 461 location based on a watershed approach.

462 **3) Compensatory Mitigation Site Buffers**

463 The Water Boards shall require that buffer areas be included as a component of 464 compensatory mitigation when necessary to ensure the ecological sustainability of a compensatory mitigation site. Buffers help reduce the adverse effect on compensatory 465 466 mitigation sites caused by stressors in the surrounding watershed. Buffers may also serve as wildlife habitat or wildlife corridors that contribute to the performance of 467 468 compensatory mitigation projects. Buffers included as part of the compensatory mitigation project shall be considered as reducing the risk of project failure when 469 470 determining the amount of compensatory mitigation required. Design criteria and 471 monitoring requirements for buffers shall be specified in compensatory mitigation plans, when buffers are proposed or required. Mitigation credit may be considered by the 472 473 Water Board when buffers are actively managed as part of the compensatory mitigation management plan. 474

475 **4)** Amount of Compensation

- The amount of compensatory mitigation shall not be pre-determined. However, the
 Water Boards shall presume that a one-to-one acreage or length of stream reach
 replacement is the minimum necessary to compensate for wetland or stream losses. The
 amount of compensatory mitigation shall be sufficient to provide the Water Boards with a
 reasonable assurance that replacement of the full range of lost aquatic resource(s)
 and/or functions will be provided in perpetuity.
- 482The Water Boards shall consider, along with other relevant factors, the applicability and483relative environmental benefits of three alternatives when deciding on the amount of484compensatory mitigation to offset permitted project impacts:
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 a. Alternative 1. The compensatory mitigation site is in an area designated by a watershed plan or regional plan for aquatic resource preservation, enhancement,

487 establishment or restoration.

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 b. Alternative 2. The mitigation site is in an area identified for aquatic resource
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- 491 c. Alternative 3. The mitigation site is identified using site specific information provided 492 as part of a project proposal.

Generally, the amount of mitigation required for Alternative 1 will be less than for Alternative
The amount required for Alternative 2 will be less than for Alternative 3. The rationale for
this relationship is based on the level of certainty that a compensatory mitigation project will
meet its performance standards. Certainty increases when there is a corresponding
increase in understanding of watershed conditions.

498 C. Elements of a Compensatory Mitigation Plan

499 **1) Content**

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500The compensatory mitigation plan for impacts to waters of the state shall address the501requirements of the 404(b)(1)Guidelines (40 C.F.R., sections 230.94(c)- 230.97).502Additional requirements to be addressed are described below in this section. The level of503detail in the plan shall be sufficient to accurately evaluate whether compensatory504mitigation offsets the adverse impacts attributed to a project considering the overall size505and scope of impact.

506The requirements for federal responsibilities of performance under the federal rules shall507also apply to the Water Boards for the purposes of these procedures. The Water Boards508shall coordinate compensatory mitigation plan review and approval with the Corps and509other state and federal agencies as appropriate.

510 2) Additional information

a. Watershed Profile

512 The applicant shall describe the manner in which the aquatic resource functions of 513 the compensatory mitigation project will support the needs of a Project Watershed 514 Area in terms of a watershed profile. The applicant shall provide a watershed profile as either a qualitative (narrative) or quantitative description of the 515 516 abundance, types and condition of aquatic resource types in the permitted-project watershed area. Quantitative descriptions of a watershed profile shall be required 517 518 on compensation plans for relatively large scale mitigation banks and in-lieu fee programs. Also, a quantitative description of a watershed profile may be required 519 520 for permittee-responsible compensatory mitigation projects. The level of detail of 521 the watershed profile shall be commensurate with the complexity of the permitted 522 project, the purpose of the discharge, the value and sensitivity of the receiving 523 water(s), and the extent, severity, and duration of the adverse effects of project 524 impacts on aquatic resources.

525 b. Consultation with Other Agencies

526 For any compensatory mitigation plan involving restoration or establishment, the applicant shall consult with state and federal land management agencies, fire 527 528 control districts, flood control districts, local mosquito-vector control district(s), and 529 any other interested local entities prior to initial site selection. Appropriate mosquito and vector control measures, including maintenance specifications, shall be 530 531 developed in coordination with local mosquito-vector control district(s) or other 532 responsible public agency(ies) during the initial compensatory mitigation project design stage. For any proposed compensatory mitigation plan involving restoration 533 or establishment on a site(s) within five miles of any airport, the applicant shall 534 535 consult the applicable airport land use commission or other responsible public 536 agency to determine whether the proposed compensatory mitigation project may pose a danger to air traffic safety. These entities should be consulted as early as 537 538 possible during the initial project design stage.

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540 Appendix: Acronyms and Definitions

541	1. Acronyms	
542 543	Water Boards	Regional Water Quality Control Boards and the State Water Resources Control Board collectively
544	C.F.R.	Code of Federal Regulations
545	Corps	U.S. Army Corps of Engineers
546	CWA	Clean Water Act (33 U.S.C. § 1251 et seq.)
547 548	Monitoring Council	California Water Quality Monitoring Council (Wat. Code §13167)
549 550	No Net Loss Policy	California Wetlands Conservation Policy (Executive Order W-59-93)
551 552	Policy	Wetland Area Protection and Dredged or fill Permitting Policy and its appendices
553	Regional Water Board	Regional Water Quality Control Board
554	State Water Board	State Water Resources Control Board
555	U.S.EPA	U.S. Environmental Protection Agency
556	Water Code	California Water Code
557 558 559 560 561	WRAMP	California Wetland and Riparian Area Assessment and Monitoring Plan prepared by the California Wetland Monitoring Workgroup and approved in concept by the California Water Quality Monitoring Council on February 10, 2010.
562 563 564 565 566	404 (b)(1) Guidelines	Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 C.F.R., parts 230-233) which are incorporated herein by reference (40 C.F.R. part 230)(December 24, 1980, amended April 10, 2008)(July 1, 2012).
567 568 569 570	1987 Manual and Supplements	Corps 1987 Wetland Delineation Manual and the Regional Supplements for the Arid West Region (2008) and Western Mountains, Valleys, and Coast Region (2010).

572 **2. Definitions**

573 Unless otherwise indicated:

- Any term that is not defined in this Policy shall have the same meaning as defined in
 Water Code section 13050, and title 23, section 3831 of the California Code of
 Regulations.
- In addition, if not cited as noted above, then terms used in subsection V.4.
 (Compensatory Mitigation) shall have the same meaning as defined in 33 C.F.R. 332.2 –
 Compensatory Mitigation For Losses of Aquatic Resources Definitions (July 1, 2011).
- Activity when used in reference to a permit means any action, undertaking, or project
 including, but not limited to, construction, operation, maintenance, repair, modification, and
 restoration which may result in any discharge to waters of the state.
- 583 **Application** means a written request for authorization of any activity that may result in the 584 discharge of dredged or fill material and is subject to this Policy, including accompanying 585 materials.
- 586 Anaerobic conditions occur in substrates in which oxygen in the soil solution is depleted and 587 aerobic bacteria (oxygen-requiring bacteria, as well as fungi) rapidly die off or enter resting 588 stages. Under these conditions, anaerobic or facultatively anaerobic bacteria begin to flourish; 589 these microorganisms can use a variety of molecules other than oxygen as the terminal electron 590 acceptor in cell respiration (i.e., the microorganisms chemically reduce those molecules). 591 Anaerobic conditions occur in substrate zones that are saturated or close enough to saturation 592 that maintenance of air diffusion from the surface is precluded. Anaerobic conditions are 593 associated with chemically reducing conditions, and typically lead to or exhibit well-594 characterized indicators in the substrate.
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- 596 **Compensatory mitigation project** means compensatory mitigation implemented by the 597 permittee as a requirement of a permit, or by a mitigation bank or an in-lieu fee program.
- **Delineation** is 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 indicators of wetland criteria 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.
- 602 **Discharge of dredged material** means any addition of dredged material into, including 603 redeposit of dredged material other than incidental fallback within, the waters of the state.
- **Discharge of fill material** means the addition of fill material into waters of the state.
- 605 **Dredged material** means material that is excavated or dredged from waters of the state.

606 Ecological Restoration Projects- means projects undertaken for the sole purpose of assisting 607 or intervening in the recovery of an aquatic ecosystem that has been degraded, 608 damaged or destroyed to restore some measure of its natural condition and to enhance the 609 beneficial uses or potential beneficial uses of water. These projects do not include projects 610 required under permit for compensatory mitigation, or projects designed to service required 611 compensatory mitigation, or projects that include other purposes such as land development, 612 property protection or flood management. 613 614 **Enhancement** – means the manipulation of the physical, chemical, or biological characteristics 615 of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results 616 in the gain of selected aquatic resource function(s), but may also lead to a decline in other 617 aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area. 618 619 **Establishment** – means the manipulation of the physical, chemical, or biological characteristics

Establishment – means the manipulation of the physical, chemical, or biological characteristics
 present to develop an aquatic resource that did not previously exist. Creation results in a gain
 in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area
 with dry land or of changing the bottom elevation of a water body.

624 **Hydric substrate conditions** are conditions of upper substrate that form if saturation in the 625 upper substrate, flooding, or ponding lasts long enough to create anaerobic conditions. For the 626 purposes of this definition, the minimum duration of saturation, flooding, or ponding required to 627 form anaerobic conditions in the upper substrate is identified as 14 consecutive days during the 628 growing season. However, the minimum duration required to develop anaerobic conditions in 629 the upper substrate is known to vary with soil temperature, soil pH, and other environmental 630 factors, and scientific evidence indicates that in some California environments the chemical

transformation to anaerobic conditions in the upper substrate may occur in fewer than 14 days.

- Hydrophytes, or hydric plant species, are plants adapted to inundated or saturated substrates(see *hydric substrate conditions*).
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635 **Indicators** are identifiable but not necessarily quantitative characteristics of wetland parameters

- used to determine whether or not the parameters meet the requirements of the wetlanddefinition. Wetland indicators are used to identify and delineate wetland areas from other
- 638 aquatic areas and from non-aquatic areas (i.e., uplands).
- 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
 permits.

⁶⁴³ **Isolated wetland** – means a wetland with no surface water connection to other aquatic644 resources.

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646 **Minimal Impact project**– means a project of such size, scope or nature that it will cause only 647 minor individual and cumulative environmental effects and dredged or fill discharges are limited 648 to not more than 15000 square feet (0.34 ac), and 600 linear feet for fill and excavation 649 discharges, and of not more than 75 cubic yards for dredging discharges.

Mitigation Banks – 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 mitigation for impacts authorized by permits.

654 Permit – means any order or water quality certification adopted or issued by the State Water
 655 Board, a Regional Water Board, the executive director, or an executive officer, as appropriate,
 656 prescribing requirements for the discharge of dredged or fill material into waters of the state.

657 **Permittee-responsible compensatory mitigation**– means an aquatic resource restoration, 658 establishment, enhancement, and/or preservation activity undertaken by the permittee (or an 659 authorized agent or contractor) to provide compensatory mitigation for which the permittee 660 retains full responsibility.

Practicable - means 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 (40 C.F.R. 230.10(a)(2) – Section 404(b)(1) Guidelines For
 Specification of Disposal Sites For Dredged or Fill Material – Compliance With Guidelines Restrictions on Discharge – July 1, 2011).

- 668 **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
- 671 implementation of appropriate legal and physical mechanisms. Preservation does not result in a
- 672 gain of aquatic resource area or functions
- 673 **Project watershed area** means an actual watershed that encompasses a project impact site 674 or some other ecologically meaningful unit of the natural landscape.
- 675 **Re-establishment** means the manipulation of the physical, chemical, or biological
- 676 characteristics of a site with the goal of returning natural/ historic functions to a former aquatic
- 677 resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain678 in aquatic resource area and functions.
- 679 **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
- 682 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.

687 Saturated - means a condition in the upper substrate in which all pores are filled with water, 688 except for a small volume of micropores (pores <0.08 mm in diameter retaining water after drainage of gravitational water) that have trapped air. This may include a small part of the 689 690 capillary fringe above the water table (i.e., the tension saturated zone) in which substrate water 691 content is approximately equal to that below the water table, but normally the capillary fringe is 692 not saturated. Soil at field capacity (which indicates a condition 2-3 days after saturation when 693 free drainage due to gravity can occur, where water is held in the soil micropores against the 694 force of gravity and the macropores [pores 0.08 to 5+ mm in diameter] are mostly air-filled) is 695 not considered to be saturated above the water table.

Substrate is the solid organic or inorganic material that forms the physical surface of a
landscape area, including wetlands. Substrate may include rock, boulder, cobble, gravel, sand,
silt, clay, and other inorganic materials; peat, muck, and other organic materials; and various
mixtures of inorganic and organic materials. Substrate generally also includes water, other
liquids, and gaseous materials.

Surface water is the freestanding or moving water above the ground surface.

Deep surface water – For all landscapes, deep surface water is either (A) deeper than 2
meters during the growing season; or (B) deeper than the greatest depth from which
rooted vascular vegetation grows to the water surface, whichever is deeper. Areas
temporarily inundated by deep surface water can be wetlands if such inundation does
not persist throughout most of the growing season. For example, floodplain areas that
are temporarily deeply inundated due to natural flooding or water management can
retain wetland conditions and subsequently function as wetlands.

Shallow surface water – For all tidal landscapes, shallow surface water is any portion of
the tidal prism that is bounded by the local Mean Lower Low Water (MLLW) datum and
the local maximum tide height as adjusted for the current tidal epoch. For landscapes
that are not tidal, shallow surface water is either (A) any water having depth equal to or
less than 2 meters for at least 14 consecutive days during the growing season; or (B) the
greatest depth from which rooted vascular vegetation grows to the water surface,
whichever is deeper.

Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stockponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

Upper substrate is the portion of substrate that includes the major portion of the root zone for
vegetation, and the zone within which relevant anaerobic chemical conditions develop in
wetlands. The major portion of root zone typically contains >50 percent of the living root mass
of the dominant wetland species. The depth of the upper substrate that influences wetland
indicators will vary, depending on vegetation, substrate texture, depths to impermeable layers,
and substrate chemistry.

Water quality objectives and other appropriate requirements of state law – means the
water quality objectives and beneficial uses as specified in the appropriate water quality control
plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the CWA; and any
other appropriate requirement of state law.

735 Watershed approach - means an analytical process for evaluating the environmental effects of 736 a proposed project and making decisions that support the sustainability or improvement of 737 aquatic resources in a watershed. The watershed approach involves consideration that the 738 abundance, diversity and conditions of aquatic resources in a watershed support beneficial 739 uses. Diversity of aquatic resources means both the types of aquatic resources and the 740 locations of those aquatic resources in a watershed. Consideration also is given to 741 understanding historic and potential aquatic resource conditions, past and projected aquatic 742 resource impacts in the watershed, and terrestrial connections between aquatic resources. The 743 watershed approach can be used to evaluate avoidance and minimization of direct, indirect, 744 secondary, and cumulative project impacts. It also can be used in determining compensatory 745 mitigation requirements. As applied to this Policy, the watershed approach establishes the goal 746 that all impacts to aquatic resources shall be mitigated in a manner that protects and restores 747 the abundance, types and conditions of aquatic resources and supports their beneficial uses.

Watershed profile – means a characterization of the abundance, types and condition of aquatic
resources in a project watershed area. Profiles provide information to evaluate direct,
secondary, and cumulative impacts of project alternatives. Profiles provide an ecological
reference for the evaluation of mitigation alternatives regarding project placement and type.
Profiles also provide a way of defining watershed goals and for tracking the cumulative
effectiveness of the Water Boards's decisions.

Wetland – is an area 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 either lacks vegetation or the vegetation is dominated by hydrophytes.

Wetland criteria – are aspects of wetland condition verified by the observation of indicators.
 The wetland criteria used to define, identify, and delineate wetland areas are hydrology,
 substrate, and vegetation (see also wetland indicators).

761 **Wetland indicator** - means- a measurable (but not necessarily quantitative) characteristic that 762 confirms the presence of a wetland criteria. For example, for the hydrology criterion, wetland 763 conditions would be indicated by saturated substrate. For the substrate criterion, an indicator

would be a peat-dominated substrate. For the vegetation criterion, an indicator would bedominance by hydrophytes.

766 Wetland vegetation - means rooted macrophytes, parts of which may be emergent,

submerged, or floating, including monocots, dicots, and ferns. A wetland area is vegetated if at
least 5% of it is covered by vegetation. The area exhibits wetland vegetation if the dominant
vegetation is hydrophytes.