

State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State

[Also for Inclusion in the Water Quality Control Plan for Ocean Waters of California, and the Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries for Waters of the United States]

STATE WATER RESOURCES CONTROL BOARD

Adopted April 2, 2019 and Revised April 6, 2021

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1 I. Introduction¹

2 The mission of the State Water Resources Control Board and the Regional Water Quality Control 3 Boards (Water Boards) includes the preservation, enhancement, and restoration of the quality of 4 California's water resources for the protection of the environment and all beneficial uses for the benefit 5 of present and future generations. In accordance with the Porter-Cologne Water Quality Control Act 6 (Water Code, § 13000 et seq.), the Water Boards are authorized to regulate discharges of waste, which 7 includes discharges of dredged or fill material, that may affect the quality of waters of the state. As 8 described below, waters of the state include some, but not all, features that are defined as wetlands, as 9 well as other features, including the ocean, lakes, and rivers. These wetlands provide environmental 10 and economic benefits to the people of this state, including flood and stormwater control, surface and ground water supply, fish and wildlife habitat, erosion control, pollution treatment, nutrient cycling, and 11 public enjoyment. Wetlands ameliorate the effects of global climate change by providing floodwater 12 13 storage, sequestering carbon, and maintaining vulnerable plant and animal communities. Many of 14 these invaluable areas statewide have been lost to fill and development. Presently, wetlands are 15 threatened by impacts from increasing population growth, land development, sea level rise, and climate 16 change. These Procedures for the Discharges of Dredged or Fill Material to Waters of the State 17 (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 18 19 Water Boards' regulation of dredge or fill activities will be conducted in a manner "to ensure no overall 20 net loss and long-term net gain in the guantity, guality, and permanence of wetlands acreage and 21 values..." The Water Boards are committed to increasing the quantity, quality, and diversity of 22 wetlands that qualify as waters of the state.

23 These Procedures contain a wetland definition in section II and wetland delineation procedures in 24 section III, both of which apply to all Water Board programs. The wetland definition encompasses the 25 full range of wetland types commonly recognized in California, including some features not protected 26 under federal law, and reflects current scientific understanding of the formation and functioning of 27 wetlands. These Procedures also include procedures for the submission, review and approval of 28 applications for activities that could result in the discharge of dredged or fill material to any waters of the 29 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 30 material to all waters of the state. The effective date of these Procedures shall be May 28, 2020. 31

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33 II. Wetland Definition

- 34 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.

¹ [NOTE: These Procedures will be incorporated into the Water Quality Control Plans for (1) Inland Surface Waters Enclosed Bays and Estuaries for waters for which water quality standards are required by the Federal Water Pollution Control Act and acts amendatory thereof or supplementary thereto and (2) Ocean Waters of California. Future incorporation of the Procedures, as adopted, into the water quality control plans will be considered non-substantive amendments. At that time, formatting and other organizational edits necessary for incorporation into the water quality control plans will be addressed.]

39 40 41	including saline w	defines "waters of the state" broadly to include "any surface water or groundwater, aters, within the boundaries of the state." "Waters of the state" includes all "waters of lowing wetlands are waters of the state:
42	1. Natural wet	lands,
43	2. Wetlands c	reated by modification of a surface water of the state, ³ and
44	3. Artificial we	tlands ⁴ that meet any of the following criteria:
45 46 47		ved by an agency as compensatory mitigation for impacts to other waters of the state, where the approving agency explicitly identifies the mitigation as being of limited on;
48	b. Specifi	ically identified in a water quality control plan as a wetland or other water of the state;
49 50		ed from historic human activity, is not subject to ongoing operation and maintenance, is become a relatively permanent part of the natural landscape; or
51 52 53 54	is curre the foll	er than or equal to one acre in size, unless the artificial wetland was constructed, and ently used and maintained, primarily for one or more of the following purposes (i.e., owing artificial wetlands are not waters of the state unless they also satisfy the criteria th in 2, 3a, or 3b):
55	i.	Industrial or municipal wastewater treatment or disposal,
56	ii.	Settling of sediment,
57 58 59	iii.	Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
60	iv.	Treatment of surface waters,
61	۷.	Agricultural crop irrigation or stock watering,
62	vi.	Fire suppression,
63	vii.	Industrial processing or cooling,
64 65	viii.	Active surface mining – even if the site is managed for interim wetlands functions and values,

² Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w).) This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are 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." under the federal Clean Water Act.

³ "Created by modification of a surface water of the state" means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically, but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.

⁴ Artificial wetlands are wetlands that result from human activity.

66	ix.	Log storage,
67	Х.	Treatment, storage, or distribution of recycled water, or
68 69	xi.	Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or

xii. Fields flooded for rice growing.⁵

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a,

3.b, or 3.c are not waters of the state. 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.

74 III. Wetland Delineation

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75 The permitting authority shall rely on any wetland area delineation from a final aquatic resource report 76 verified by the U.S. Army Corps of Engineers (Corps) for the purposes of determining the extent of 77 wetland waters of the U.S. A delineation of any wetland areas potentially impacted by the project that are not delineated in a final aquatic resource report verified by the Corps shall be performed using the 78 79 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 80 81 above. As described in the 1987 Manual and Supplements, an area "lacks vegetation" if it has less 82 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 83 such an area that meets the definition of wetland. Terms as defined in these Procedures shall be used 84 85 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.

⁵ Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board's authority to issue or waive waste discharge requirements or take other actions as applicable.

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

99 The purpose of this section is to establish application procedures for discharges of dredged or fill 100 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 101 waters of the U.S.⁶ These Procedures include Appendix A, which contains relevant portions of the 102 103 U.S. EPA's Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredge or Fill 104 Material"⁷ (Guidelines), with minor modifications to make them applicable to the state dredged or fill 105 program (hereafter State Supplemental Dredge or Fill Guidelines).⁸ This section applies to all 106 applications for discharges of dredged or fill material to waters of the state submitted after [insert date that is nine months after approval by the Office of Administrative Law].⁹ The Procedures do not apply 107 108 to applications that are submitted prior to linsert date that is nine months after approval by the Office of 109 Administrative Law].

110 Unless excluded by section IV.D, applicants must file an application with the Water Boards for any

activity that could result in the discharge of dredged or fill material to waters of the state in accordance

112 with California Code of Regulations, title 23, section 3855.¹⁰ This application requirement applies to

new discharges, proposed material changes in the character, location, or volume of existing

discharges, and upon renewal of existing Orders for existing discharges. The permitting authority may

amend an existing Order solely for the purpose of extending the expiration date without requiring a new

116 application.

117 The applicant may consult with the Water Boards to determine whether a project could result in a

118 discharge of dredged or fill material to waters of the state and/or discuss submittals that would meet the

application requirements listed below. Discharges of dredged or fill material or other waste material to

7 40 C.F.R. § 230.

⁶ California Code of Regulations, title 23, sections 3830-3869 (state's Clean Water Act (CWA) section 401 (33 USC § 1341) water quality certification program)

⁸ The State Supplemental Dredge or Fill Guidelines are included as Appendix A. Because the State Supplemental Dredge or Fill Guidelines are derived directly from the U.S. EPA's 404(b)(1) Guidelines, it uses slightly different terms than terms used in sections I through V of these Procedures. The State Supplemental Dredge or Fill Guidelines will be applied in a manner consistent with sections I through V of these Procedures.

⁹ In cases where the applicant is a state agency and is acting as the CEQA lead agency for one or more projects otherwise subject to this section, and that state agency is a party to an existing written agreement (e.g., memorandum of understanding) with the State Water Board that sets out alternative procedures and requirements regarding the submission, review, or approval of project applications, the permitting authority shall apply the terms and conditions of the agreement in lieu of the terms and conditions of this section. After adoption of these Procedures, the State Water Board may also enter into such written agreements after consideration at a public meeting; such an agreement may include, for example, early consultation regarding potential project applications, early identification and analysis of project alternatives and mitigation measures, and dispute resolution. Any written agreements, whether existing or entered into after the adoption of these Procedures, may be amended in writing at any time by joint agreement of the parties, and such amended agreements shall govern in lieu of the terms and conditions of this section. All other applicable laws, including requirements for public notice and comment, apply to the permitting authorities' approval of projects under such an agreement.

¹⁰ 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 and waivers thereof.

areas that are not waters of the state, but that could affect the quality of waters of the state, may beaddressed under other Water Board regulatory programs.

122 A. Project Application Submittal for Individual Orders

123 The requirements set forth in sections IV.A and IV.B apply only to individual orders. Applicants must 124 submit the items listed in subsection 1 to the permitting authority. In addition, applicants shall consult 125 with the permitting authority about the items listed in subsection 2. Within 30 days of receiving the 126 items listed in subsection 1, the permitting authority may require the applicant to submit one or more of 127 the items in subsection 2 for a complete application. Applicants are encouraged to consult with the 128 permitting authority to determine the appropriate level of detail for the items in subsections 1 (and 2, if 129 applicable). Within 30 days of receiving all of the required items, the permitting authority shall determine 130 whether the application is complete and notify the applicant accordingly. If the applicant's federal 131 license or permit application includes any of the information required in subsections 1 or 2 below, the 132 applicant may submit the federal application materials to satisfy the corresponding state application 133 information. If federal application materials are submitted as part of the state application, the applicant 134 shall indicate where the corresponding state application information can be found in the federal 135 application materials.

- 136 1. Items Required for a Complete Application
- All items listed in California Code of Regulations, title 23, section 3856 "Contents of a Complete
 Application."¹¹
- b. If the Corps requires an aquatic resource delineation report, a copy of the report verified by the
 Corps.
- c. A delineation of any waters that are not delineated in an aquatic resource delineation report
 verified by the Corps. If such waters include wetlands, the wetlands must be delineated as
 described in section III.
- 144
 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.
- 146 e. Map(s) with a scale of at least 1:24000 (1" = 2000') and of sufficient detail to accurately show 147 (1) the boundaries of the lands owned or to be utilized by the applicant in carrying out the 148 proposed activity, including the grading limits, proposed land uses, and the location, dimensions 149 and type of any structures erected (if known) or to be erected and (2) all aguatic resources that 150 may gualify as waters of the state, within the boundaries of the project, and all aquatic 151 resources that may qualify as waters of the state outside of the boundary of the project that 152 could be impacted by the project. A map verified by the Corps may satisfy this requirement if it 153 includes all potential waters of the state. The permitting authority may require that the map(s) 154 be submitted in electronic format (e.g., GIS shapefiles).
- f. A description of the waters proposed to be impacted by the dredge or fill activity. The
 description should include the beneficial uses as listed in the applicable water quality control
 plan; a description of the activity at each individual discharge or dredge location; quantity of
 impacts to waters proposed to receive a discharge of dredged or fill material at each location
 rounded to at least the nearest one-hundredth (0.01) of an acre, nearest linear foot, and quantity

¹¹ 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 and waivers thereof.

160 161 162 163 164		(as or of	impacts to waters proposed to be dredged at each dredging location to the nearest cubic yard s applicable); assessment of potential direct and indirect impacts resulting from the discharge dredging activity and potential mitigation measures for those potential impacts, identification existing water quality impairment(s); the source of water quality impairment(s), if known; and e presence of rare, threatened or endangered species ¹² habitat.
165 166 167	g.	the	alternatives analysis, ¹³ unless any of the following exemptions apply. The exemption from element does not preclude a permitting authority from requiring the plicant to demonstrate in its application that the project complies with section IV.B.1.a.
168 169 170 171 172 173 174		i.	The project includes discharges to waters of the state outside of federal jurisdiction, but the entire project would meet the terms and conditions of one or more Water Board-certified Corps' General Permits, including any Corps District's regional terms and conditions, if all discharges were to waters of the U.S. The permitting authority will verify that the entire project would meet the terms and conditions of the Corps' General Permit(s) if all discharges, including discharges to waters of the state outside of federal jurisdiction, were to waters of the U.S. based on information supplied by the applicant.
175 176 177 178		ii.	The project includes only discharges to waters of the U.S. and meets the terms and conditions for coverage under an uncertified Corps' General Permit, including any Corps District's regional terms and conditions. This exemption does not apply if the discharge of dredged or fill material will directly impact:
179			a) more than two-tenths (0.2) of an acre or 300 linear feet of waters of the state;
180			b) rare, threatened, or endangered species habitat in waters of the state;
181			c) wetlands or eel grass beds; or
182 183			 d) Outstanding National Resource Waters or Areas of Special Biological Significance.
184 185 186 187		iii.	The project would be conducted in accordance with a watershed plan that has been approved for use by the permitting authority and analyzed in an environmental document that includes a sufficient alternatives analysis, monitoring provisions, and guidance on compensatory mitigation opportunities.
188		iv.	The project is an Ecological Restoration and Enhancement Project.
189 190 191		V.	The project has no permanent impacts to aquatic resources and no impacts to rare, threatened or endangered species habitat in waters of the state, wetlands or eel grass beds, Outstanding National Resource Waters or Areas of Special Biological Significance,

¹² "Rare, threatened, or endangered species" as used in the Procedures refers to plant and animal species listed as rare, threatened, or endangered pursuant to the California Endangered Species Act of 1984 (Fish & Game Code, § 2050 et seq.), the Native Plant Protection Act of 1977 (Fish & Game Code, § 1900 et seq.), or the Federal Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq.).

¹³ "Alternatives analysis" as used in these Procedures refer to the analysis required by section IV.A.1.h and is a means to comply with the State Supplemental Dredge 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 or a Regional Board water quality control plan discharge prohibition. 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.

192 193	and all implementation actions in the restoration plan can reasonably be concluded within one year.	I
194 195 196 197 198 199 200 201 202 202 203	h. If none of the above exemptions apply, the applicant must submit an alternatives analysis consistent with the requirements of section 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 information to the Corps to support an alternatives analysis, the applicant shall provide that information to the permitting authority. Such information may satisfy some or all of the followin requirements in accordance with section IV.B.3. Alternatives analyses shall be completed in accordance with the following tiers. The level of effort required for an alternatives analysis within each of the three tiers shall be commensurate with the significance of the impacts resulting from the discharge. ¹⁴	
204 205 206 207 208 209	i. Tier 3 projects include any discharge of dredged or fill material that directly impacts more than two-tenths (0.2) of an acre or 300 linear feet of waters of the state, rare, threatened of endangered species habitat in waters of the state, wetlands or eel grass beds, or Outstanding National Resource Waters or Areas of Special Biological Significance, and is not a project that inherently cannot be located at an alternate location. Tier 3 projects sha provide an analysis of off-site and on-site alternatives.	or
210 211 212 213 214 215 216 217	ii. Tier 2 projects include any discharge of dredged or fill material that directly impacts more than one tenth (0.1) and less than or equal to two tenths (0.2) of an acre or more than 100 and less than or equal to 300 linear feet of waters of the state unless it meets the criteria for a Tier 3 project, or any project that inherently cannot be located at an alternate location (unless it meets the size requirements set forth in Tier 1). Tier 2 projects shall provide an analysis of only on-site alternatives. For routine operation and maintenance of existing facilities, analysis of on-site alternatives is limited to operation and maintenance alternatives for the facility.	0 n
218 219 220 221 222	iii. Tier 1 projects include any discharge of dredged or fill material that directly impacts less than or equal to one tenth (0.1) of an acre or less than or equal to 100 linear feet of water of the state, unless it meets the criteria for a Tier 3 project. 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.	
223	2. Additional Information Required for a Complete Application	
224 225 226	a. If required by the permitting authority on a case-by-case basis, supplemental field data from the wet season to substantiate dry season delineations, as is consistent with the 1987 Manual and Supplements.	
227 228 229 230	b. If compensatory mitigation is required by the permitting authority, on a case-by-case basis, a draft compensatory mitigation plan developed using a watershed approach containing the item listed below. Compensatory mitigation plans are not required for Ecological Restoration and Enhancement Projects. For permittees who intend to fulfill their compensatory mitigation	S

¹⁴ As used below, "impacts" include both permanent and temporary impacts.

231 232 233	obligations by securing credits from approved mitigation banks or in- mitigation plans need include only items i, ii, and iii, as described be required in the State Supplemental Dredge or Fill Guidelines, sectio	low, as well as information
234	and the name of the specific mitigation bank or in-lieu fee program p	roposed to be used.
235	Draft compensatory mitigation plans shall comport with the State Su	pplemental Dredge or Fill
236	Guidelines, Subpart J, and include the items listed below.	
237 238	i. A watershed profile for the project evaluation area for both the project and the proposed compensatory mitigation project.	proposed dredged or fill
239 240	An assessment of the overall condition of aquatic resources protect the project and their likely stressors, using an assessment met	
241	permitting authority.	
242 243	iii. A description of how the project impacts and compensatory mit net loss of the overall abundance, diversity, and condition of ac	•
244	the watershed profile. If the compensatory mitigation is located	
245	the project, no net loss will be determined on a watershed basi	· ·
246	mitigation and project impacts are located in multiple watershe	
247	determined considering all affected watersheds collectively. The	•
248 249	shall be sufficient to accurately evaluate whether compensator adverse impacts attributed to a project.	y miligation onsets the
250	iv. Preliminary information about ecological performance standard	s monitoring and long-term
251	protection and management, as described in the State Suppler	
252	Guidelines.	
253	v. A timetable for implementing the compensatory mitigation plan	
254 255	 vi. If the compensatory mitigation plan includes buffers, design cri requirements for those buffers. 	teria and monitoring
256 257 258 259 260 261	vii. If the compensatory mitigation involves restoration or establish mitigation, applicants shall notify, as applicable, state and fede agencies, airport land use commission, fire control districts, flor mosquito-vector control district(s), and any other interested loc selection. These entities should be notified as early as possibl compensatory mitigation project design stage.	ral land management od control districts, local al entities prior to initial site
262	viii. If required by the permitting authority, an assessment of reason	• •
263 264	the compensatory mitigation associated with climate change, a or minimize those potential impacts.	nd any measures to avoid
265	c. If required by the permitting authority on a case-by-case basis, if pro	•
266	water work or water diversions, a proposed water quality monitoring	
267 268	with water quality objectives of the applicable water quality control p should include type and frequency of sampling for each applicable p	· · · · ·
269	d. In all cases where temporary impacts are proposed, a draft restorati	on plan that outlines design,
270	implementation, assessment, and maintenance for restoring areas of	
271 272	project conditions. The design components shall include the objecti grading plan of disturbed areas to pre-project contours; a planting particular pre-project contours.	
212		alette with plant species

Waters of the State

273 274 275 276 277 278 279 280 281 282 283 284 285 286		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., recontouring, 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). If temporary impacts are proposed to be restored through passive restoration, the draft restoration plan shall include an explanation of how passive restoration will restore the area to pre-project conditions, assessment components, and an estimated date for expected restoration. The level of detail in the restoration plan shall be sufficient to accurately evaluate whether the restoration addresses the adverse temporary impacts attributed to a project. The applicant shall submit a final restoration plan that describes the restoration of all temporarily disturbed areas to pre-project conditions, consistent with section IV.B.4.
287 288 289		For Ecological Restoration and Enhancement Projects, a restoration plan for temporary impacts provided as part of the binding stream or wetland enhancement or restoration agreement or wetland establishment agreement may satisfy this requirement.
290 291 292 293 294 295 296 297 298 299 300 301 301 302 303	e.	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. An assessment plan approved by a federal or state resource agency, or a local agency with the primary function of managing land or water for wetland habitat purposes in accordance with a binding stream or wetland enhancement agreement, restoration agreement, or establishment agreement, will satisfy these requirements. An assessment plan approved by a non-governmental conservation organization or a state or federal agency that is statutorily tasked with natural resource management may satisfy some or all of these requirements.

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

- 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 that cannot be practicably avoided or minimized to waters of the state;
- b. The potential impacts will not contribute to a net loss of the overall abundance, diversity, and
 condition of aquatic resources in a watershed (or multiple watersheds when compensatory
 mitigation is permitted in another watershed as set forth in section IV.B.5(d));
- c. The discharge of dredged or fill material 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 will not cause or contribute to significant degradation of

318 the waters of the state.

- The permitting authority shall rely on any final aquatic resource report verified 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.
- 323 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. <u>Discharges to waters of the U.S.</u>
- 330 In reviewing and approving the alternatives analysis for discharges of dredged or fill material 331 that impact waters of the U.S., the permitting authority shall defer to the Corps' determinations 332 on the adequacy of the alternatives analysis, or rely on a draft alternatives analysis if no final 333 determination has been made, unless the Executive Officer or Executive Director determines 334 that (1) the permitting authority was not provided an adequate opportunity to collaborate in the development of the alternatives analysis, (2) the alternatives analysis does not adequately 335 address aquatic resource issues identified in writing by the Executive Officer or Executive 336 337 Director to the Corps during the development of the alternatives analysis, or (3) the proposed 338 project and all of the identified alternatives would not comply with water quality standards.
- 339 If the project also includes discharges to waters of the state outside of federal jurisdiction, the 340 permitting authority shall require the applicant to supplement the alternatives analysis to include 341 waters of the state outside of federal jurisdiction unless the applicant has consulted with the 342 permitting authority and the alternatives analysis addresses all issues identified by the 343 permitting authority during the consultation process. If an alternatives analysis is not required 344 by the Corps for discharges of dredged or fill material to waters of the U.S., the permitting 345 authority shall require an alternatives analysis for the entire project in accordance with the State 346 Supplemental Dredge or Fill Guidelines, unless the project is exempt under section IV.A.1(g) 347 above.
- 348The permitting authority shall not apply the presumption set forth in the State Supplemental349Dredge or Fill Guidelines, section 230.10(a)(3) to any non-vegetated waters of the U.S. that the350Corps does not classify as a special aquatic site (as defined in subpart E of U.S. EPA's section351404(b)(1) Guidelines).
- 4. Prior to or concurrent with issuance of the Order, the permitting authority will approve the final
 restoration plan for temporary impacts. Generally, the permitting authority will approve the final
 restoration plan when it issues the Order. The permitting authority may approve the final restoration
 plan after it issues the Order. In such cases the permitting authority shall include as a condition of
 the Order that the applicant receive approval of the final restoration plan prior to initiating the
 temporary impacts and shall specify a process for approving the final restoration plan.
- 358 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.
 Consistent with section 230.93(a)(2) of the State Supplemental Guidelines, subject to the

362 363 364 365 366 367		permitting authority's approval, compensatory mitigation may be performed using methods of 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.
368 369 370 371	b.	Where feasible, 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.
372 373 374 375 376 377 378 379 380	C.	<u>Amount:</u> 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. The permitting authority may reduce the amount of compensatory mitigation 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.
381 382 383 384		<u>Strategy 1:</u> Applicant locates compensatory mitigation using a watershed approach based on a watershed profile developed from a watershed plan that: (1) has been approved for use by the permitting authority and analyzed in an environmental document, (2) includes monitoring provisions, and (3) includes guidance on compensatory mitigation opportunities.
385 386 387 388		<u>Strategy 2:</u> 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.
389 390 391 392 393 394 395		Generally, the amount of compensatory mitigation required under Strategy 1 will be less than the amount of compensatory mitigation required under Strategy 2 since 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.
396 397 398 399 400 401 402 403		A minimum of one-to-one mitigation ratio, ¹⁵ measured as area or length, is required to compensate for wetland or stream losses when compensatory mitigation is required. Subject to the permitting authority's approval, the ratio may be satisfied using any of the methods identified in section IV.B.5(a). A higher overall mitigation ratio shall be used where necessary to ensure replacement of lost aquatic resource functions, as described in the State Supplemental Dredge or Fill Guidelines, section 230.93(f). Where temporary impacts will be restored to pre-project conditions, the permitting authority may require compensatory mitigation for temporal loss from the temporary impacts.

¹⁵ For temporary impacts, the minimum one-to-one mitigation ratio for wetland or stream losses is not applicable for temporal losses for impacts that are fully restored to pre-project conditions.

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404 405 406 407 408		d.	<u>Type and Location</u> : The permitting authority will evaluate the applicant's proposed mitigation type and location 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.
409 410 411 412 413			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.
414 415 416 417 418 419 420 421 422		e.	<u>Final Compensatory Mitigation Plan:</u> 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 will be provided in perpetuity.
423 424 425 426 427 428			Generally, the permitting authority will approve the final compensatory mitigation plan when it issues the Order. Where compliant with CEQA, the permitting authority may approve the final compensatory mitigation plan after it issues the Order. In such cases the permitting authority shall include as a condition of the Order that the applicant receive approval of the final mitigation plan prior to discharging dredged or fill material to waters of the state and shall specify a process for approving the final mitigation plan.
429 430 431 432 433		f.	<u>Financial Security:</u> Where deemed necessary by the permitting authority, provision of a financial security (e.g., letter of credit or performance bond) 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. The financial security shall be in a form consistent with the California Constitution and state law.
434 435 436 437		g.	<u>Term of Mitigation Obligation</u> : 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, including compensatory mitigation performance standards and long-term management funding obligations.
438 439 440 441 442 443	6.	for ap se su	e permitting authority shall provide public notice in accordance with Water Code section 13167.5 waste discharge requirements. The permitting authority shall provide public notice of an plication for water quality certification in accordance with California Code of Regulations, title 23, ction 3858. If the permitting authority receives comments on the application or there is bstantial public interest in the project, the permitting authority shall also provide public notice of e draft Order, or draft amendment of the Order, unless circumstances warrant otherwise.
444	7.	Th	e permitting authority will review and approve the final monitoring and reporting requirements for

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.

447 C. General Orders

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448 Discharges of dredged or fill material to waters of the state that are regulated under a general order are 449 not subject to the requirements set forth in sections IV.A and IV.B. Applicants applying to enroll under a general order shall follow the instructions specified in the general order for obtaining coverage. 450 451 The permitting authority may issue general orders for specific classes of dredged or fill discharge 452 activities that are similar; involve the same or similar types of discharges and possible adverse impacts 453 requiring the same or similar conditions or limitations in order to alleviate potential adverse impacts to 454 water quality; and are determined by the permitting authority to more appropriately be regulated under 455 a general order rather than under an individual Order. 456 General orders shall be reviewed, noticed, and issued in accordance with the applicable requirements 457 of division 7 of the Water Code and the California Code of Regulations, division 3 of title 23. 458 D. Activities and Areas Excluded from the Application Procedures for Regulation of Discharges of Dredged or Fill Material to Waters of the State 459 460 The application procedures specified in sections IV.A and IV.B do not apply to proposed discharges of 461 dredged or fill material to waters of the state from the following activities¹⁶ or to the following areas. These exclusions do not, however, affect the Water Board's authority to issue or waive waste discharge 462 463 requirements (WDRs) or take other actions for the following activities or areas to the extent authorized 464 by the Water Code. 465 1. Activities excluded from application procedures in sections IV.A and IV.B: a. Activities that are exempt under CWA section 404(f) (33 USC § 1344(f)).¹⁷ The permitting 466 authority shall use 33 CFR 323.4 (1986) and 40 CFR 232.3 (1988) to determine whether certain 467 468 activities are exempt under CWA section 404(f). These regulations are hereby incorporated by 469 reference and shall apply to all waters of the state. Consistent with CWA section 404(f)(2) and 470 40 CFR section 232.3, any discharge of dredged or fill material to a water of the state incidental 471 to any of these activities is not exempt under CWA section 404(f) and shall be subject to the 472 application procedures set forth in sections IV.A and IV.B, if (1) the purpose of the activity is 473 bringing a water of the state into a use to which it was not previously subject, where the flow or 474 circulation of water of the state may be impaired or the reach of such waters be reduced, or (2) 475 the discharge contains any toxic pollutant listed in CWA section 307. 476 b. Suction dredge mining activities for mineral recovery regulated under CWA section 402. 477 c. Routine and emergency operation and maintenance activities conducted by public agencies, 478 water utilities, or special districts that result in discharge of dredged or fill material to artificial, 479 existing waters of the state:

- 480 i. currently used and maintained primarily for one or more of the purposes listed in section
 481 II.3.d. (ii), (iii), (iv), (x), or (xi); or
- 482 ii. for the purpose of preserving the line, grade, volumetric or flow capacity within the483 existing footprint of a flood control or stormwater conveyance facility.
- 484 This exclusion does not relieve public agencies, water utilities or special districts of their

¹⁶ Note that not all activities identified in this section necessarily result in discharges of dredged or fill material to waters of the state.

¹⁷ Unless otherwise specified, all federal statutes and regulations that are incorporated by reference into these Procedures are the versions of those federal statutes and regulations that are in effect as of April 2, 2019.

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485 obligation to submit an application for a water quality certification consistent with California 486 Code of Regulations, title 23, section 3856 or waste discharge requirements consistent with Water Code section 13260, whichever is applicable, to the permitting authority for these 487 488 activities; or their responsibility to avoid and minimize adverse impacts to aquatic resources and 489 beneficial uses from these activities. The permitting authority has full discretion to determine 490 whether an activity described above qualifies for this exclusion based on the application 491 submitted and other relevant information. If the permitting authority determines that an activity 492 qualifies for this exclusion, the permitting authority retains full authority and discretion under the 493 Porter-Cologne Water Quality Control Act to determine how to regulate the discharge of 494 dredged or fill material. Where a permitting authority has already determined it appropriate to 495 regulate these types of activities in specific instances, this exclusion in no way disturbs or limits 496 the permitting authority's current regulation of these types of activities. This exclusion does not 497 apply to the discharge of dredged or fill material to a water of the state approved by an agency 498 as compensatory mitigation.

- d. Routine operation and maintenance activities that result in discharge of dredged or fill material to artificially-created waters currently used and maintained primarily for one or more of the purposes listed in section II.3.d. (i), (ii), (ii), (vi), (vi), (x), or (xi). This exclusion does not apply to the discharge of dredged or fill material to (a) a water of the U.S., (b) a water specifically identified in a water quality control plan, (c) a water created by modification of a water of the state, or (d) a water approved by an agency as compensatory mitigation.
- 505 2. Areas excluded from application procedures in sections IV.A and IV.B:
- a. Wetland areas that qualify as prior converted cropland (PCC) within the meaning of 33 CFR
 section 328.3(b)(2). The applicant may establish that the area is PCC by providing relevant
 documentary evidence that the area qualifies as PCC and has not been abandoned due to five
 consecutive years of non-use for agricultural purposes, or by providing a current PCC
 certification by the Natural Resources Conservation Service, the Corps, or the U.S. EPA to the
 permitting authority.
- b. Wetlands that are, or have been, in rice cultivation (including wild rice) within the last five years
 as of April 2, 2019 and have not been abandoned due to five consecutive years of non-use in
 rice production.
- 515 c. The following features used for agricultural purposes:
- 516 i. Ditches with ephemeral flow that are not a relocated water of the state or excavated in a 517 water of the state;
- 518ii.Ditches with intermittent flow that are not a relocated water of the state or excavated in a519water of the state, or that do not drain wetlands other than any wetlands described in520sections (iv) or (v);
 - iii. Ditches that do not flow, either directly or through another water, into another water of the state;
- 523 iv. Artificially irrigated areas that would revert to dry land should application of waters to that area cease; or

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522

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525	۷.	Artificial, constructed lakes and ponds created in dry land such as farm and stock
526		watering ponds, irrigation ponds, and settling basins.

527 The exclusions in section IV.D.2 do not apply to discharges of dredged or fill material that convert 528 wetland areas to a non-agricultural use.

529 For requests for approvals from the Division of Water Rights for activities associated with (1) an 530 appropriation of water subject to Part 2 (commencing with section 1200) of Division 2 of the Water 531 Code, (2) a hydroelectric facility where the proposed activity requires a Federal Energy Regulatory 532 Commission (FERC) license or amendment to a FERC license, or (3) any other diversion of water for 533 beneficial use where approval by the Division of Water Rights is required, the Division of Water Rights 534 will inform the applicant whether the application procedures in sections IV.A and IV.B will apply to the 535 application.

536 V. Definitions

537 The following definitions apply to these Procedures, including the State Supplemental Dredge or Fill 538 Guidelines. Unless otherwise indicated, any term that is not defined in these Procedures shall have the 539 same meaning as defined in Water Code section 13050, and title 23, section 3831 of the California 540 Code of Regulations.

541 **Abundance** means an estimate of the amount of aquatic resources by type in a watershed area, and 542 what types of aquatic resources are most and least prevalent.

543 **Active Surface Mining** means operations that, in accordance with Division 2, Chapter 9 of the Surface 544 Mining and Reclamation Act of 1975, have an approved reclamation plan, and for which reclamation 545 has not been certified as complete by the local lead agency with the concurrence of the Department of 546 Conservation.

547 **Alternatives Analysis** is the process of analyzing project alternatives, including the proposed project, 548 to determine the alternative that is the least environmentally damaging practicable alternative (LEDPA).

549 **Application** means a written request, including a report of waste discharge or request for water quality 550 certification, for authorization of any activity that may result in the discharge of dredged or fill material 551 and is subject to these Procedures.

Discharge of Dredged or Fill Material shall have the same meanings as they are used in the federal Clean Water Act and 40 CFR section 232.2, but (1) shall include discharges to waters of the state that are not waters of the U.S. and (2) any demonstrations described in 40 CFR section 232.2(3)(i) shall be made to the permitting authority instead of the Corps or U.S. EPA. Placement of dredged or fill material in a manner that could not affect the quality of waters of the state is not considered a discharge of dredged or fill material.

558 **Diversity** means the relative proportion of aquatic resource types, classification, connectivity, and 559 spatial distribution in a watershed area.

560 **Ecological Restoration and Enhancement Project** means the project is voluntarily undertaken for the 561 purpose of assisting or controlling the recovery of an aquatic ecosystem that has been degraded, 562 damaged or destroyed to restore some measure of its natural condition and to enhance the beneficial 563 uses, including potential beneficial uses of water.

564 Such projects are undertaken:

565 566 567	 in accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the real property interest owner or the entity conducting the habitat restoration or enhancement work and:
568 569 570 571 572 573	 a federal or state resource agency, including, but not limited to, 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 the Delta Conservancy;
574 575	 a local agency with the primary function of managing land or water for wetland habitat purposes; or
576	c. a non-governmental conservation organization; or
577	2) by a state or federal agency that is statutorily tasked with natural resource management.
578 579 580 581 582 583 584 585	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 ongoing maintenance or management to maximize fish, wildlife, habitat, or other ecological benefits, or 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 for mitigation, actions to service required mitigation, or actions undertaken for the primary purpose of land development.
586 587	Environmental Document means a document prepared for compliance with the California Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA).
588 589	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.
590 591 592	LEDPA means the least environmentally damaging practicable alternative. The determination of practicable alternatives shall be consistent with the State Supplemental Dredge or Fill Guidelines, section 230.10(a).
593 594 595 596 597	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 wetland hydrology and hydrophytic vegetation, and consideration of the purpose and cause of the physical alterations to hydrology and vegetation.
598 599	Order means waste discharge requirements, waivers of waste discharge requirements, or water quality certification.
600 601	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).
602 603	Project means the whole of an action that includes a discharge of dredged or fill material to waters of the state.
604 605	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

- 606 mitigation on the abundance, diversity, and condition of aquatic resources in an ecologically meaningful 607 unit of the watershed. The size and location of the ecologically meaningful unit shall be based on a 608 reasonable rationale.
- 609 **Water Boards** mean any of the nine Regional Water Quality Control Boards, the State Water 610 Resources Control Board, or all of them collectively.
- 611 **Watershed** means a land area that drains to a common waterway, such as a stream, lake, estuary, 612 wetland, or ultimately the ocean.
- 613 Watershed Approach means an analytical process for evaluating the environmental effects of a 614 proposed project and making decisions that support the sustainability or improvement of aquatic 615 resources in a watershed. The watershed approach recognizes that the abundance, diversity, and 616 condition of aquatic resources in a watershed support beneficial uses. Diversity of aquatic resources 617 includes both the types of aquatic resources and the locations of those aquatic resources in a 618 watershed. Consideration is also given to understanding historic and potential aquatic resource 619 conditions, past and projected aquatic resource impacts in the watershed, and terrestrial connections 620 between aquatic resources. The watershed approach can be used to evaluate avoidance and 621 minimization of direct, secondary (indirect), and cumulative project impacts. It also can be used in 622 determining compensatory mitigation requirements.
- 623 Watershed Plan means a document, or a set of documents, developed in consultation with relevant 624 stakeholders, a specific goal of which is aguatic resource restoration, establishment, enhancement, and preservation within a watershed. A watershed plan addresses aquatic resource conditions in the 625 626 watershed, multiple stakeholder interests, and land uses. Watershed plans should include information 627 about implementing the watershed plan. Watershed plans may also identify priority sites for aquatic 628 resource restoration and protection. Examples of watershed plans include special area management 629 plans, advance identification programs, and wetland management plans. The permitting authority may 630 approve the use of other plans, including for example, Habitat Conservation Plans (HCPs), Natural Community Conservation Plans (NCCPs), or municipal stormwater permit watershed management 631 632 programs as watershed plans, if they substantially meet the stated above. Any NCCP approved by the 633 California Department of Fish and Wildlife before December 31, 2020, and any regional HCP approved 634 by the United States Fish and Wildlife Service before December 31, 2020, which includes biological 635 goals for aquatic resources, shall be used by the permitting authority as a watershed plan for such 636 aquatic resources, unless the permitting authority determines in writing that the HCP or NCCP does not 637 substantially meet the definition of a watershed plan for such aquatic resources.
- 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, 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 (indirect), 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, watershed

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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.

655 **Wetland Delineation** means the application of a technical and procedural method to identify the 656 boundary of a wetland area within a specified study site by identifying the presence or absence of 657 wetland indicators at multiple points at the site and by establishing boundaries that group together sets

658 of points that share the same status as wetland versus non-wetland.

659 Appendix A: State Supplemental Dredge or Fill Guidelines

660 It is the intent of the Water Boards to be consistent with the U.S. EPA's 404(b)(1) Guidelines where 661 feasible. Due to jurisdictional and procedural differences, some modifications to the U.S. EPA's 662 404(b)(1) Guidelines were necessary. Generally, these changes or deletions were made to reduce 663 redundancy (especially where sufficiently described elsewhere in these Procedures) and to account for 664 other state requirements. Note that the numbering scheme of the U.S. EPA's 404(b)(1) Guidelines has 665 been retained in these State Supplemental Dredge or Fill Guidelines for the benefit of practitioners who are familiar with the U.S. EPA's 404(b)(1) Guidelines. The State Supplemental Dredge or Fill 666 667 Guidelines describe how the Water Boards will implement the U.S. EPA's 404(b)(1) Guidelines under 668 these Procedures. The definitions contained herein apply to these Procedures, including the State 669 Supplemental Dredge or Fill Guidelines.

670 Subpart A – General

- 671 § 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.
- 676 (h) The term discharge point means the point within the disposal site at which the dredged or fill 677 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 fordischarge is to be removed.
- 684 (n) The term permitting authority means as defined above in the main text of these Procedures.
- 685 (q) The term practicable means available and capable of being done after taking into consideration 686 cost, existing technology, and logistics in light of overall project purposes.
- (q1) Special aquatic sites means those sites identified in subpart E. 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))
- 692 § 230.6 Adaptability

(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.

- 700 It is unlikely that the Guidelines will apply in their entirety to any one activity, no matter how 701 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 702 703 not intended or expected that extensive testing, evaluation or analysis will be needed to make 704 findings of compliance in such routine cases. 705 (b) The Guidelines user, including the agency or agencies responsible for implementing the 706 Guidelines, must recognize the different levels of effort that should be associated with varying 707 degrees of impact and require or prepare commensurate documentation. The level of 708 documentation should reflect the significance and complexity of the discharge activity. 709 (c) An essential part of the evaluation process involves making determinations as to the relevance 710 of any portion(s) of the Guidelines and conducting further evaluation only as needed. However, 711 where portions of the Guidelines review procedure are "short form" evaluations, there still must be 712 sufficient information (including consideration of both individual and cumulative impacts) to support 713 the decision of whether to specify the site for disposal of dredged or fill material and to support the 714 decision to curtail or abbreviate the evaluation process. The presumption against the discharge in 715 § 230.10 applies to this decision-making. 716 Subpart B – Compliance with Guidelines 717 § 230.10 Restrictions on Discharge 718 (a) No discharge of dredged or fill material shall be permitted if there is a practicable alternative to 719 the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long 720 as the alternative does not have other significant adverse environmental consequences. 721 (1) For the purpose of this requirement, practicable alternatives include, but are not limited to: 722 (i) Activities which do not involve a discharge of dredged or fill material to waters of the state 723 or ocean waters; 724 (ii) Discharges of dredged or fill material at other locations in waters of the state or ocean 725 waters: 726 (2) An alternative is practicable if it is available and capable of being done after taking into 727 consideration cost, existing technology, and logistics in light of overall project purposes. If it is 728 otherwise a practicable alternative, an area not presently owned by the applicant which could 729 reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of 730 the proposed activity may be considered. 731 (3) Where activity associated with a discharge which is proposed for a special aquatic site (as 732 defined in subpart E) does not require access or proximity to or siting within the special aquatic 733 site in question to fulfill its basic purpose (i.e., is not "water dependent"), practicable alternatives 734 that do not involve special aquatic sites are presumed to be available, unless clearly 735 demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, 736 all practicable alternatives to the proposed discharge which do not involve a discharge into a 737 special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, 738 unless clearly demonstrated otherwise. 739 (b) No discharge of dredged or fill material shall be permitted if it:
- 740 (1) Causes or contributes, after consideration of disposal site dilution and dispersion, to 741
 - violations of any applicable State water guality standard;

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(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:

- 747 (1) Significantly adverse effects of the discharge of pollutants on human health or welfare,
 748 including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife,
 749 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, andeconomic 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.

763 Subpart E – Special Aquatic Sites

- 764 § 230.40 Sanctuaries and refuges
- (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.
- 767 § 230.41 Wetlands.
- (a)(1) Wetlands are as defined above in the main text of these Procedures.
- 769 § 230.42 Mud Flats.
- (a) Mud flats are broad flat areas along the sea coast and in coastal rivers to the head of tidal influenceand 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
- 775 unvegetated or vegetated only by algal mats.
- 776 § 230.43 Vegetated shallows.
- (a) Vegetated shallows are permanently inundated areas that under normal circumstances support
 communities of rooted aguatic vegetation, such as turtle grass and eel grass in estuarine or marine
- 779 systems as well as a number of freshwater species in rivers and lakes.
- 780 § 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

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783 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 784 stream velocity, a streaming flow, a smooth surface, and a finer substrate. Riffle and pool complexes 785 786 are particularly valuable habitat for fish and wildlife.

787 Subpart H – Actions to Minimize Adverse Effects

788 Note: There are many actions which can be undertaken in response to 230.10(d) to minimize the 789 adverse effects of discharges of dredged or fill material. Some of these, grouped by type of activity, 790 are listed in this subpart. Additional criteria for compensation measures are provided in subpart J of 791 these Procedures.

- 792 § 230.70 Actions concerning the location of the discharge.
- 793 The effects of the discharge can be minimized by the choice of the disposal site. Some of the ways 794 to accomplish this are by:
- 795 (a) Locating and confining the discharge to minimize smothering of organisms;
- 796 (b) Designing the discharge to avoid a disruption of periodic water inundation patterns;
- 797 (c) Selecting a disposal site that has been used previously for dredged material discharge;
- 798 (d) Selecting a disposal site at which the substrate is composed of material similar to that being 799 discharged, such as discharging sand on sand or mud on mud;
- 800 (e) Selecting a disposal site, the discharge point, and the method of discharge to minimize the 801 extent of any plume;
- 802 (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 803 of areas subject to such fluctuations. 804
- 805 § 230.71 Actions concerning the material to be discharged
- 806 The effects of a discharge can be minimized by treatment of, or limitations on the material itself, such 807 as:
- 808 (a) Disposal of dredged material in such a manner that physiochemical conditions are maintained, and the potency and availability of pollutants are reduced. 809
- 810 (b) Limiting the solid, liquid, and gaseous components of material to be discharged at a particular 811 site;
- 812 (c) Adding treatment substances to the discharge material;
- 813 (d) Utilizing chemical flocculants to enhance the deposition of suspended particulates in diked 814 disposal areas.
- 815 § 230.72 Actions controlling the material after discharge.
- 816 The effects of the dredged or fill material after discharge may be controlled by:
- 817 (a) Selecting discharge methods and disposal sites where the potential for erosion, slumping or
- 818 leaching of materials into the surrounding aquatic ecosystem will be reduced. These sites or 819
- methods include, but are not limited to:
- 820 (1) Using containment levees, sediment basins, and cover crops to reduce erosions:

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821 (2) Using lined containment areas to reduce leaching where leaching of chemical constituents from the discharged material is expected to be a problem; 822 823 (b) Capping in-place contaminated material with clean material or selectively discharging the most 824 contaminated material first to be capped with the remaining material; 825 (c) Maintaining and containing discharged material properly to prevent point and nonpoint sources 826 of pollution; 827 (d) Timing the discharge to minimize impact, for instance during periods of unusual high-water 828 flows, wind, wave, and tidal actions. 829 § 230.73 Actions affecting the method of dispersion. 830 The effects of a discharge can be minimized by the manner in which it is dispersed, such as: 831 (a) Where environmentally desirable, distributing the dredged material widely in a thin layer at the disposal site maintain natural substrate contours and elevation: 832 833 (b) Orienting a dredged or fill material mound to minimize undesirable obstruction to the water 834 current or circulation pattern, and utilizing natural bottom contours to minimize the size of the 835 mound; 836 (c) Using silt screens or other appropriate methods to confine suspended particulate/turbidity to a 837 small area where settling or removal can occur; 838 (d) Making use of currents and circulation patterns to mix, disperse and dilute the discharge; 839 (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: 840 841 (f) Selecting sites or managing discharges to confine and minimize the release of suspended 842 particulates to give decreased turbidity levels and to maintain light penetration for organisms; 843 (q) Setting limitations on the amount of material to be discharged per unit of time or volume of 844 receiving water. 845 § 230.74 Actions related to technology. 846 Discharge technology should be adapted to the needs of each site. In determining whether the 847 discharge operation sufficiently minimizes adverse environmental impacts, the applicant should 848 consider: 849 (a) Using appropriate equipment or machinery, including protective devices, and the use of such 850 equipment or machinery in activities related to the discharge of dredged or fill material; 851 (b) Employing appropriate maintenance and operation on equipment or machinery, including adequate training, staffing, and working procedures; 852 853 (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 854 855 materials, machines with specially designed wheels or tracks, and the use of mats under heavy machines to reduce wetland surface compaction and rutting; 856 857 (d) Designing access roads and channels spanning structures using culverts, open channels, and 858 diversions that will pass both low and high-water flows, accommodate fluctuating water levels, and 859 maintain circulation and faunal movement; 860 (e) Employing appropriate machinery and methods of transport of the material for discharge.

861	§ 230.75 Actions affecting plant and animal populations.
862	Minimization of adverse effects on populations of plant and animals can be achieved by:
863 864	(a) Avoiding changes in water current and circulation patterns which would interfere with the movement of animals;
865 866 867	(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;
868 869	(c) Avoiding sites having unique habitat or other value, including habitat of threatened or endangered species;
870 871 872 873 874 875 876 877 878	(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;
879 880	(e) Timing discharge to avoid spawning or migration seasons and other biologically critical time periods;
881	(f) Avoiding the destruction of remnant natural sites within areas already affected by development.
882	§ 230.76 Actions affecting human use.
883	Minimization of adverse effects on human use potential may be achieved by:
884 885 886	(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;
887	(b) Selecting disposal sites which are not valuable as natural aquatic areas;
888 889	(c) Timing the discharge to avoid the seasons or periods when human recreational activity associated with the aquatic site is most important;
890 891	(d) Following discharge procedures which avoid or minimize the disturbance of aesthetic features on an aquatic site or ecosystem;
892 893	(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;
894	(f) Locating the disposal site outside of the vicinity of a public water supply intake.
895	§ 230.77 Other actions.
896 897	(a) In the case of fills, controlling runoff and other discharges from activities to be conducted on the fill;
898	(b) In the case of dams, designing water releases to accommodate the needs of fish and wildlife;
899 900	(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

- 901 on scientifically defensible pollutant concentration levels in addition to any applicable water quality 902 standards;
- 903 (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.

906 Subpart J – Compensatory Mitigation for Losses of Aquatic Resources

- 907 § 230.91 Purpose and general considerations.
- 908 (a) Purpose.
- 909 (1) The purpose of this subpart is to establish standards and criteria for the use of all types of
 910 compensatory mitigation, including on-site and off-site permittee-responsible mitigation,
 911 mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts to waters of the state
 912 authorized through the issuance of Orders.
- 913 (d) Accounting for regional variations. Where appropriate, the permitting authority shall account for 914 regional characteristics of aguatic resource types, functions and services when determining

915 performance standards and monitoring requirements for compensatory mitigation projects.

- 916 § 230.92 Definitions.
- 917 For the purposes of this subpart, the following terms are defined:
- 918 Adaptive management means the development of a management strategy that anticipates likely 919 challenges associated with compensatory mitigation projects and provides for the implementation of 920 actions to address those challenges, as well as unforeseen changes to those projects. It requires 921 consideration of the risk, uncertainty, and dynamic nature of compensatory mitigation projects and 922 guides modification of those projects to optimize performance. It includes the selection of appropriate 923 measures that will ensure that the aquatic resource functions are provided and involves analysis of 924 monitoring results to identify potential problems of a compensatory mitigation project and the 925 identification and implementation of measures to rectify those problems.
- 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.
- 929 Compensatory mitigation means the restoration (re-establishment or rehabilitation), establishment 930 (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the 931 purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable 932 avoidance and minimization has been achieved.
- 933 Compensatory mitigation project means compensatory mitigation implemented by the permittee as a 934 requirement of an Order (i.e., permittee-responsible mitigation), or by a mitigation bank or an in-lieu 935 fee program.
- 936 Condition means the relative ability of an aquatic resource to support and maintain a community of 937 organisms having a species composition, diversity, and functional organization comparable to 938 reference aquatic resources in the region.
- 939 Credit means a unit of measure (e.g., a functional or areal measure or other suitable metric)
- 940 representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The 941 measure of aquatic functions is based on the resources restored, established, enhanced, or 942 preserved.

943 Days means calendar days.

944 Debit means a unit of measure (e.g., a functional or areal measure or other suitable metric) 945 representing the loss of aquatic functions at an impact or project site. The measure of aquatic 946 functions is based on the resources impacted by the authorized activity.

947 Enhancement means the manipulation of the physical, chemical, or biological characteristics of an

948 aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s).

949 Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a
 950 decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic
 951 resource area.

- 952 Establishment (creation) means the manipulation of the physical, chemical, or biological
 953 characteristics present to develop an aquatic resource that did not previously exist at an upland site.
 954 Establishment results in a gain in aquatic resource area and functions.
- 955 Functional capacity means the degree to which an area of aquatic resource performs a specific 956 function.
- 957 Functions means the physical, chemical, and biological processes that occur in ecosystems.
- 958 Impact means adverse effect.
- 959 In-kind means a resource of a similar structural and functional type to the impacted resource.
- 960 In-lieu fee program means a program involving the restoration, establishment, enhancement, and/or
- 961 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 bank, an inflict rec program sens 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
- 967 fee program are governed by an in-lieu fee program instrument.
- 968 In-lieu fee program instrument means the legal document for the establishment, operation, and use of 969 an in-lieu fee program.
- 970 Instrument means mitigation banking instrument or in-lieu fee program instrument.
- 971 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
- 973 compensatory mitigation for impacts authorized by Orders. In general, a mitigation bank sells
- 974 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 aregoverned by a mitigation banking instrument.
- 977 Mitigation banking instrument means the legal document for the establishment, operation, and use of 978 an in-lieu fee program.
- 979 Off-site means an area that is neither located on the same parcel of land as the impact site, nor on a 980 parcel of land contiguous to the parcel containing the impact site.
- 981 On-site means an area located on the same parcel of land as the impact site, or on a parcel of land 982 contiguous to the impact site.
- 983 Out-of-kind means a resource of a different structural and functional type from the impacted resource.

984 985 986	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.
987 988 989	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.
990 991 992 993	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.
994 995 996 997	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.
998 999 1000	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.
1001 1002 1003	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.
1004 1005 1006 1007	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.
1008 1009	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.
1010	Services mean the benefits that human populations receive from functions that occur in ecosystems.
1011 1012	Sponsor means any public or private entity responsible for establishing, and in most circumstances, operating a mitigation bank or in-lieu fee program.
1013 1014 1015 1016 1017 1018	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.
1019 1020	Watershed means a land area that drains to a common waterway, such as a stream, lake, estuary, wetland, or ultimately the ocean.
1021	Watershed approach is defined above in the main text of these Procedures.
1022	Watershed plan is defined above in the main text of these Procedures.
1023	§ 230.93 General compensatory mitigation requirements.
1024	(a) General Considerations.

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1025 (1) The fundamental objective of compensatory mitigation is to offset environmental losses 1026 resulting from unavoidable impacts to waters of the state authorized by Orders. The permitting 1027 authority must determine the compensatory mitigation to be required in an Order, based on 1028 what would be environmentally preferable. In making this determination, the permitting authority 1029 must assess the likelihood for ecological success and sustainability, and the location of the 1030 compensation site relative to the impact site and their significance within the watershed, and the 1031 costs of the compensatory mitigation project. In many cases, the environmentally preferable 1032 compensatory mitigation may be provided through mitigation banks or in-lieu fee programs 1033 because they usually involve consolidating compensatory mitigation projects where ecologically 1034 appropriate, consolidating resources, providing financial planning and scientific expertise (which 1035 often is not practical for permittee-responsible compensatory mitigation projects), reducing 1036 temporal losses of functions, and reducing uncertainty over project success. Compensatory 1037 mitigation requirements must be commensurate with the amount and type of impact that is 1038 associated with a particular Order. Applicants are responsible for proposing an appropriate 1039 compensatory mitigation option to offset unavoidable impacts.

1040 (2) Compensatory mitigation may be performed using methods of restoration, enhancement,
1041 establishment, and in certain circumstances preservation. Restoration should generally be the
1042 first option considered because the likelihood of success is greater and the impacts to
1043 potentially ecologically important uplands are reduced compared to establishment, and the
1044 potential gains in terms of aquatic resource functions are greater, compared to enhancement
1045 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.

1053 (b) Type and location of compensatory mitigation.

1054 (1) In general, the required compensatory mitigation should be located within the same 1055 watershed as the impact site, and should be located where it is most likely to successfully 1056 replace lost functions and services, taking into account such watershed scale features as 1057 aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the 1058 availability of water rights), trends in land use, ecological benefits, and compatibility with 1059 adjacent land uses. When compensating for impacts to marine resources, the location of the 1060 compensatory mitigation site should be chosen to replace lost functions and services within the 1061 same marine ecological system (e.g., reef complex, littoral drift cell). Compensation for impacts 1062 to aquatic resources in coastal watersheds (watersheds that include a tidal water body) should 1063 also be located in a coastal watershed where practicable. Compensatory mitigation projects 1064 should not be located where they will increase risks to aviation by attracting wildlife to areas 1065 where aircraft-wildlife strikes may occur (e.g., near airports).

1066(2) Mitigation bank credits. When permitted impacts are located within the service area of an1067approved mitigation bank, and the bank has the appropriate number and resource type of

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1068 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 1069 plan and appropriate real estate and financial assurances) for a mitigation bank is required to be 1070 1071 in place before its credits can begin to be used to compensate for authorized impacts, use of a 1072 mitigation bank can help reduce risk and uncertainty, as well as temporal loss of resource 1073 functions and services. Mitigation bank credits are not released for debiting until specific 1074 milestones associated with the mitigation bank site's protection and development are achieved. 1075 thus use of mitigation bank credits can also help reduce risk that mitigation will not be fully 1076 successful. Mitigation banks typically involve larger, more ecologically valuable parcels, and 1077 more rigorous scientific and technical analysis, planning and implementation than permittee-1078 responsible mitigation. Also, development of a mitigation bank requires site identification in 1079 advance, project-specific planning, and significant investment of financial resources that is often 1080 not practicable for many in-lieu fee programs. For these reasons, the permitting authority 1081 should give preference to the use of mitigation bank credits when these considerations are 1082 applicable. However, these same considerations may also be used to override this preference, 1083 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 1084 1085 outstanding resource based on rigorous scientific and technical analysis.

- 1086 (3) In-lieu fee program credits. Where permitted impacts are located within the service area of 1087 an approved in-lieu fee program, and the sponsor has the appropriate number and resource 1088 type of credits available, the permittee's compensatory mitigation requirements may be met by 1089 securing those credits from the sponsor. Where permitted impacts are not located in the service 1090 area of an approved mitigation bank, or the approved mitigation bank does not have the 1091 appropriate number and resource type of credits available to offset those impacts, in-lieu fee 1092 mitigation, if available, is generally preferable to permittee-responsible mitigation. In-lieu fee 1093 projects typically involve larger, more ecologically valuable parcels, and more rigorous scientific 1094 and technical analysis, planning and implementation than permittee-responsible mitigation. 1095 They also devote significant resources to identifying and addressing high-priority resource 1096 needs on a watershed scale, as reflected in their compensation planning framework. For these 1097 reasons, the permitting authority should give preference to in-lieu fee program credits over 1098 permittee-responsible mitigation, where these considerations are applicable. However, as with 1099 the preference for mitigation bank credits, these same considerations may be used to override 1100 this preference where appropriate. Additionally, in cases where permittee-responsible 1101 mitigation is likely to successfully meet performance standards before advance credits secured 1102 from an in-lieu fee program are fulfilled, the permitting authority should also give consideration 1103 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.
- 1111(5) Permittee-responsible mitigation through on-site and in-kind mitigation. In cases where a1112watershed 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.

1116 (6) Permittee-responsible mitigation through off-site and/or out-of-kind mitigation. If, after 1117 considering opportunities for on-site, in-kind compensatory mitigation as provided in paragraph 1118 (b)(5) of this section, the permitting authority determines that these compensatory mitigation 1119 opportunities are not practicable, are unlikely to compensate for the permitted impacts, or will be 1120 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 1121 1122 impacts or is environmentally preferable to on-site or in-kind mitigation, the permitting authority 1123 should require that this alternative compensatory mitigation be provided.

1124 (c) Watershed approach to compensatory mitigation.

1125 (1) The permitting authority must use a watershed approach to establish compensatory 1126 mitigation requirements in Orders as described in the main text of the Procedures. Where a 1127 watershed plan is available, the permitting authority will determine whether the plan meets the 1128 definition of watershed plan in the Procedures and therefore is appropriate for use in the 1129 watershed approach for compensatory mitigation. In cases where the permitting authority 1130 determines that an appropriate watershed plan is available, the watershed approach should be 1131 based on that plan. Where no such plan is available, the watershed approach should be based 1132 on information provided by the project sponsor or available from other sources. The ultimate 1133 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 1134 1135 mitigation sites.

1136 (2) Considerations.

1137 (i) A watershed approach to compensatory mitigation considers the importance of condition, 1138 landscape position and resource type of compensatory mitigation projects for the 1139 sustainability of aquatic resource functions within the watershed. Such an approach 1140 considers how the condition, types, and locations of compensatory mitigation projects will 1141 provide the desired aquatic resource functions, and will continue to function over time in a 1142 changing landscape. It also considers the habitat requirements of important species, habitat 1143 loss or conversion trends, sources of watershed impairment, and current development 1144 trends, as well as the requirements of other regulatory and non-regulatory programs that 1145 affect the watershed, such as storm water management or habitat conservation programs. It 1146 includes the protection and maintenance of terrestrial resources, such as non-wetland 1147 riparian areas and uplands, when those resources contribute to or improve the overall 1148 ecological functioning of aquatic resources in the watershed. Compensatory mitigation 1149 requirements determined through the watershed approach should not focus exclusively on 1150 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. 1151

1152(ii) Locational factors (e.g., hydrology, surrounding land use) are important to the success of1153compensatory mitigation for impacted habitat functions and may lead to siting of such1154mitigation away from the project area. However, consideration should also be given to

1155 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. 1156 1157 (iii) A watershed approach may include on-site compensatory mitigation, off-site 1158 compensatory mitigation (including mitigation banks or in-lieu fee programs), or a 1159 combination of on-site and off-site compensatory mitigation. 1160 (iv) A watershed approach to compensatory mitigation should include, to the extent 1161 practicable, inventories of historic and existing aquatic resources, including identification of degraded aquatic resources, and identification of immediate and long-term aquatic resource 1162 1163 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 1164 aquatic resource restoration, establishment, and enhancement activities, and preservation of 1165 1166 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 1167 1168 as possible, to enhance the usefulness of the approach in determining compensatory mitigation requirements. 1169 1170 (v) A watershed approach is not appropriate in areas where watershed boundaries do not 1171 exist, such as marine areas. In such cases, an appropriate spatial scale should be used to 1172 replace lost functions and services within the same ecological system (e.g., reef complex, 1173 littoral drift cell). 1174 (3) Information Needs. 1175 (i) In the absence of a watershed plan determined by the permitting authority under 1176 paragraph (c)(1) of this section to be appropriate for use in the watershed approach, the 1177 permitting authority will use a watershed approach based on analysis of information 1178 regarding watershed conditions (as identified in the watershed profile) and needs, including 1179 potential sites for aquatic resource restoration activities and priorities for aquatic resource 1180 restoration and preservation. Such information includes: Current trends in habitat loss or 1181 conversion; cumulative impacts of past development activities, current development trends, 1182 the presence and needs of sensitive species; site conditions that favor or hinder the success 1183 of compensatory mitigation projects; and chronic environmental problems such as flooding or 1184 poor water quality. 1185 (ii) This information may be available from sources such as wetland maps; soil surveys; U.S. 1186 Geological Survey topographic and hydrologic maps; aerial photographs; information on rare, endangered and threatened species and critical habitat; local ecological reports or studies; 1187 and other information sources that could be used to identify locations for suitable 1188 1189 compensatory mitigation projects in the watershed. 1190 (iii) The level of information and analysis needed to support a watershed approach must be 1191 commensurate with the scope and scale of the proposed impacts requiring an Order, as well 1192 as the functions lost as a result of those impacts. 1193 (4) Watershed Scale. The size of watershed addressed using a watershed approach should not 1194 be larger than is appropriate to ensure that the aquatic resources provided through

1195 1196 1197 1198	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.
1199	(d) Site selection.
1200 1201 1202 1203	(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:
1204 1205	(i) Hydrological conditions, soil characteristics, and other physical and chemical characteristics;
1206 1207	(ii) Watershed-scale features, such as aquatic habitat diversity, habitat connectivity, and other landscape scale functions;
1208 1209	(iii) The size and location of the compensatory mitigation site relative to hydrologic sources (including the availability of water rights) and other ecological features;
1210	(iv) Compatibility with adjacent land uses and watershed management plans;
1211 1212 1213 1214	(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
1215 1216 1217 1218 1219 1220	(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.
1221 1222	(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.
1223 1224	(3) Applicants should propose compensation sites adjacent to existing aquatic resources or where aquatic resources previously existed.
1225	(e) Mitigation type.
1226 1227 1228 1229	(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

1230 1231	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
1232	to the affected aquatic resource.
1233	(2) If the permitting authority determines, using the watershed approach in accordance with
1234	paragraph (c) of this section that out-of-kind compensatory mitigation will serve the aquatic
1235	resource needs of the watershed, the permitting authority may authorize the use of such out-of-
1236	kind compensatory mitigation. The basis for authorization of out-of-kind compensatory
1237	mitigation must be documented in the administrative record for the Order action.
1238	(3) For difficult-to-replace resources (e.g., bogs, fens, springs, streams, vegetated seasonal
1239	wetlands, slope and seep wetlands, vernal pools, and wet meadows) if further avoidance and
1240	minimization is not practicable, the required compensation should be provided, if practicable,
1241	through in-kind rehabilitation, enhancement, or preservation since there is greater certainty that
1242	these methods of compensation will successfully offset permitted impacts.
1243	(f) Amount of compensatory mitigation.
1244	(1) If the permitting authority determines that compensatory mitigation is necessary to offset
1245	unavoidable impacts to aquatic resources, the amount of required compensatory mitigation
1246	must be, to the extent practicable, sufficient to replace lost aquatic resource functions. In cases
1247	where appropriate functional or condition assessment methods or other suitable metrics are
1248	available, these methods should be used where practicable to determine how much
1249	compensatory mitigation is required.
1250	(2) The permitting authority must require a mitigation ratio greater than one-to-one where
1251	necessary to account for the method of compensatory mitigation (e.g., preservation), the
1252	likelihood of success, differences between the functions lost at the impact site and the functions
1253	expected to be produced by the compensatory mitigation project, temporal losses of aquatic
1254	resource functions, the difficulty of restoring or establishing the desired aquatic resource type
1255 1256	and functions, and/or the distance between the affected aquatic resource and the compensation
1256	site. The rationale for the required replacement ratio must be documented in the administrative record for the Order action.
1231	
1258	(3) If an in-lieu fee program will be used to provide the required compensatory mitigation, and
1259	the appropriate number and resource type of released credits are not available, the permitting
1260	authority must require sufficient compensation to account for the risk and uncertainty associated
1261	with in-lieu fee projects that have not been implemented before the permitted impacts have
1262	occurred.
4000	

- (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.
- 1268 (h) Preservation.

1269 1270	(1) Preservation may be used to provide compensatory mitigation for activities authorized by Orders when all the following criteria are met:
1271 1272	(i) The resources to be preserved provide important physical, chemical, or biological functions for the watershed;
1273 1274 1275 1276	(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;
1277	(iii) Preservation is determined by the permitting authority to be appropriate and practicable;
1278	(iv) The resources are under threat of destruction or adverse modifications; and
1279 1280	(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).
1281 1282 1283 1284 1285	(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.
1286 1287 1288 1289 1290 1291 1292	(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).
1293	(j) Relationship to other federal, tribal, state, and local programs.
1294 1295 1296 1297 1298	(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:
1299 1300	(i) The compensatory mitigation project must include appropriate compensation required by the Order for unavoidable impacts to aquatic resources authorized by that Order.
1301 1302 1303 1304	(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.

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1305 1306 1307 1308 1309 1310 1311 1312	(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.
1313 1314 1315 1316	(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.
1317	(k) Order conditions.
1318 1319 1320	(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.
1321	(2) For an Order that requires permittee-responsible mitigation, the special conditions must:
1322	(i) Identify the party responsible for providing the compensatory mitigation;
1323 1324	(ii) Incorporate, by reference, the final or draft mitigation plan approved by the permitting authority;
1325 1326 1327	(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
1328 1329 1330	(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.
1331 1332 1333 1334 1335 1336 1337 1338 1339	(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, 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.

1340 (I) Party responsible for compensatory mitigation.

- 1341 (1) For permittee-responsible mitigation, the special conditions of the Order must clearly
 1342 indicate the party or parties responsible for the implementation, performance, and long-term
 1343 management of the compensatory mitigation project.
- 1344 (3) If use of a mitigation bank or in-lieu fee program is approved by the permitting authority to 1345 provide part or all of the required compensatory mitigation for an Order, the permittee retains 1346 responsibility for providing the compensatory mitigation until the appropriate number and 1347 resource type of credits have been secured from a sponsor and the permitting authority has 1348 received documentation that confirms that the sponsor has accepted the responsibility for 1349 providing the required compensatory mitigation. This documentation may consist of a letter or 1350 form signed by the sponsor, with the Order number and a statement indicating the number and 1351 resource type of credits that have been secured from the sponsor. Copies of this 1352 documentation will be retained in the administrative records for both the Order and the 1353 instrument. If the sponsor fails to provide the required compensatory mitigation, the permitting 1354 authority may pursue measures against the sponsor to ensure compliance.
- (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 compensatory
 mitigation to offset temporal losses of aquatic functions that will result from the permitted activity.
- 1359 (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.

- 1367 (2) The amount of the required financial assurances must be determined by the permitting 1368 authority, in consultation with the project sponsor, and must be based on the size and 1369 complexity of the compensatory mitigation project, the degree of completion of the project at the 1370 time of project approval, the likelihood of success, the past performance of the project sponsor, 1371 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, 1372 1373 legislative appropriations for government sponsored projects, or other appropriate instruments, 1374 subject to the approval of the permitting authority. The rationale for determining the amount of 1375 the required financial assurances must be documented in the administrative record for either the 1376 Order or the instrument. In determining the assurance amount, the permitting authority shall 1377 consider the cost of providing replacement mitigation, including costs for land acquisition, 1378 planning and engineering, legal fees, mobilization, construction, and monitoring.
- 1379(3) If financial assurances are required, the Order must include a special condition requiring the1380financial assurances to be in place prior to commencing the permitted activity.

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- (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 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.
- 1403 § 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.

1407 (c) Mitigation plan.

1408

(1) Preparation and Approval.

1409 (i) For individual Orders, the permittee must prepare a draft mitigation plan and submit it to 1410 the permitting authority for review prior to issuing the Order. After addressing any comments 1411 provided by the permitting authority, the permittee must prepare a final mitigation plan, which 1412 must be approved by the permitting authority prior to commencing work in waters of the state. 1413 The approved final mitigation plan must be incorporated into the individual Order either as an 1414 attachment or by reference. The final mitigation plan must include the items described in 1415 paragraphs (c)(2) through (c)(14) of this section, but the level of detail of the mitigation plan 1416 should be commensurate with the scale and scope of the impacts. As an alternative, the 1417 permitting authority may determine that it would be more appropriate to address any of the 1418 items described in paragraphs (c)(2) through (c)(14) of this section as Order conditions, 1419 instead of components of a compensatory mitigation plan. For permittees who intend to fulfill 1420 their compensatory mitigation obligations by securing credits from approved mitigation banks 1421 or in-lieu fee programs, their mitigation plans need include only the items described in 1422 paragraphs (c)(5) and (c)(6) of this section, and the name of the specific mitigation bank or 1423 in-lieu fee program to be used.

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1424 1425 1426 1427 1428	(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.
1429 1430 1431 1432 1433	(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).)
1434 1435 1436	(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 $\S 230.97(a)$).
1437 1438 1439 1440 1441 1442 1443 1444 1445 1446	(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 inlieu fee program only needs to provide baseline information about the impact site, not the mitigation bank or in-lieu fee project site.
1447 1448	(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 <u>§ 230.93(f)</u> .)
1449 1450 1451	(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.
1452 1453 1454	(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.
1455 1456 1457 1458 1459 1460 1461 1462 1463	(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.
1464 1465	(8) Maintenance plan. A description and schedule of maintenance requirements to ensure the continued viability of the resource once initial construction is completed.

1466(9) Performance standards. Ecologically-based standards that will be used to determine1467whether the compensatory mitigation project is achieving its objectives. (See § 230.95.)

1468 1469 1470 1471	(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 <u>§ 230.96</u> .)
1472 1473 1474 1475	(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 <u>§ 230.97(d)</u> .)
1476 1477 1478 1479 1480 1481	(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).)
1482 1483 1484	(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 <u>§ 230.93(n)</u>).
1485 1486 1487	(14) Other information. The permitting authority may require additional information as necessary to determine the appropriateness, feasibility, and practicability of the compensatory mitigation project.
1488	§ 230.95 Ecological performance standards.
1489 1490 1491 1492 1493	(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 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).
1494 1495 1496 1497 1498 1499 1500 1501 1502 1503 1504 1505 1506 1507	(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.
1508	§ 230.96 Monitoring.

- 1508 § 230.96 Monitoring.
- 1509 (a) General.
- 1510 (1) Monitoring the compensatory mitigation project site is necessary to determine if the project is 1511 meeting its performance standards, and to determine if measures are necessary to ensure that

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1512 1513 1514 1515 1516 1517 1518 1519 1520	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.
1521 1522	(2) The permitting authority may conduct site inspections on a regular basis (e.g., annually) during the monitoring period to evaluate mitigation site performance.
1523 1524 1525 1526 1527 1528 1529 1530 1531 1532	(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 project is not on track to meet them. The permitting authority may also revise monitoring requirements when remediation and/or adaptive management is required.
1533	(c) Monitoring reports.
1534 1535 1536 1537 1538 1539 1540	(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.
1541 1542 1543	(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.
1544 1545	(3) Monitoring reports must be provided by the permitting authority to interested federal, tribal, state, and local resource agencies, and the public, upon request.
1546	§ 230.97 Management.
1547	(a) Site protection.
1548 1549 1550 1551 1552 1553 1554 1555 1556	(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
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1557 1558 1559 1560 1561 1562 1563	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.
1564 1565 1566 1567 1568	(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 jeopardize the objectives of the compensatory mitigation project. Where appropriate, multiple instruments recognizing compatible uses (e.g., fishing or grazing rights) may be used.
1569 1570 1571 1572 1573	(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.
1574 1575 1576 1577 1578 1579 1580	(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.
1581 1582 1583	(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.
1584 1585 1586 1587 1588 1589 1590 1591 1592 1593	(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.
1594	(c) Adaptive management.
1595 1596 1597 1598	(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.
1599 1600	(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

1600 progressing towards meeting its performance standards as anticipated, the responsible party 1601 must notify the permitting authority as soon as possible. The permitting authority will evaluate

- 1602 and pursue measures to address deficiencies in the compensatory mitigation project. The permitting authority will consider whether the compensatory mitigation project is providing 1603 ecological benefits comparable to the original objectives of the compensatory mitigation project. 1604 1605 (3) The permitting authority, in consultation with the responsible party (and other federal, tribal, 1606 state, and local agencies, as appropriate), will determine the appropriate measures. The 1607 measures may include site modifications, design changes, revisions to maintenance 1608 requirements, and revised monitoring requirements. The measures must be designed to ensure 1609 that the modified compensatory mitigation project provides aquatic resource functions 1610 comparable to those described in the mitigation plan objectives. 1611 (4) Performance standards may be revised in accordance with adaptive management to 1612 account for measures taken to address deficiencies in the compensatory mitigation project. 1613 Performance standards may also be revised to reflect changes in management strategies and 1614 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 1615 be allowed except in the case of natural disasters. 1616 1617 (d) Long-term management. 1618 (1) The Order conditions or instrument must identify the party responsible for ownership and all 1619 long-term management of the compensatory mitigation project. The Order conditions or 1620 instrument may contain provisions allowing the permittee or sponsor to transfer the long-term 1621 management responsibilities of the compensatory mitigation project site to a land stewardship 1622 entity, such as a public agency, non-governmental organization, or private land manager, after 1623 review and approval by the permitting authority. The land stewardship entity need not be 1624 identified in the original Order or instrument, as long as the future transfer of long-term 1625 management responsibility is approved by the permitting authority. 1626 (2) A long-term management plan should include a description of long-term management 1627 needs, annual cost estimates for these needs, and identify the funding mechanism that will be 1628 used to meet those needs. 1629 (3) Any provisions necessary for long-term financing must be addressed in the original Order or 1630 instrument. The permitting authority may require provisions to address inflationary adjustments
 - 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.
 - 1636(4) For permittee-responsible mitigation, any long-term financing mechanisms must be1637approved in advance of the activity causing the authorized impacts.