



~~PRELIMINARY DRAFT~~

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

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

STATE WATER RESOURCES CONTROL BOARD

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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 ~~storm water~~ stormwater control,
11 surface and ground water supply, fish and wildlife habitat, erosion control, pollution treatment, nutrient
12 cycling, and public enjoyment. Wetlands ameliorate the effects of global climate change by providing
13 floodwater storage, sequestering carbon, and maintaining vulnerable plant and animal communities.
14 Many of these invaluable areas statewide have been lost to fill and development. Presently, wetlands
15 are threatened by impacts from increasing population growth, land development, sea level rise, and
16 climate change. These Procedures for the Discharges of Dredged or Fill ~~Materials~~ Material to Waters of
17 the State (Procedures) conform to Executive Order W-59-93, commonly referred to as California's "no
18 net loss" policy for wetlands. In accordance with Executive Order W-59-93, the Procedures ensure that
19 the Water Boards' regulation of ~~dredged~~ dredge or fill activities will be conducted in a manner "to ensure
20 no overall net loss and long-term net gain in the quantity, quality, and permanence of wetlands acreage
21 and 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)
30 Guidelines, thereby bringing uniformity to Water Boards' regulation of discharges of dredged or fill
31 material to all waters of the state. The effective date of these Procedures shall be [insert date that is six
32 months after approval by the Office of Administrative Law].

33 **II. Wetland Definition**

34 The Water Boards define an area as wetland as follows:

35 *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation*
36 *of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of*

¹ [NOTE: These Procedures will be incorporated into the Water Quality Control Plans for (1) Inland Surface Waters Enclosed Bays and Estuaries and (2) Ocean Waters of California. Because the Procedures will already have been adopted, 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.]

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37 *such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's*
38 *vegetation is dominated by hydrophytes or the area lacks vegetation.*

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

- 42 1. Natural wetlands,
- 43 2. Wetlands created by modification of a water of the state,⁴²
- 44 3. Wetlands that meet current or historic definitions of "waters of the ~~United States~~U.S.,"²³ and
- 45 4. Artificial wetlands³⁴ that meet any of the following criteria:
 - 46 a. Approved by an agency as mitigation for impacts to other waters of the state, except where
 - 47 the approving agency explicitly identifies the mitigation as being of limited duration;
 - 48 b. Specifically identified in a water quality control plan as a wetland or other water of the state;
 - 49 c. Resulted from historic human activity, is not subject to ongoing operation and maintenance,
 - 50 and has become a relatively permanent part of the natural landscape; or
 - 51 d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and
 - 52 is currently used and maintained, primarily for one or more of the following purposes (i.e.,
 - 53 the following artificial wetlands are not waters of the state unless they also satisfy ~~another~~
 - 54 ~~one of the above~~ criteria set forth in 2, 3, 4a, or 4b):
 - 55 i. Industrial or municipal wastewater treatment or disposal,
 - 56 ii. Settling of sediment,
 - 57 iii. ~~Storm water~~Stormwater detention, infiltration, or treatment,
 - 58 iv. Agricultural crop irrigation or stock watering,
 - 59 v. Fire suppression,
 - 60 vi. ~~Cooling water,~~Industrial processing or cooling,
 - 61 vii. Active surface mining – even if the site is managed for interim wetlands functions
 - 62 and values, ~~or~~

⁴² "Created by modification of a water of the state" means that the wetland that is being evaluated must have been directly converted from a pre-existing water of the state, and does not include a situation where the water of the state was completely eliminated.

² ~~This~~³ 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. 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 ~~a preliminary jurisdictional determination~~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.

³⁴ Artificial wetlands are wetlands that result from human activity.

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- 63 viii. Log storage.
- 64 ix. Treatment, storage, or distribution of recycled water, or
- 65 x. Maximizing groundwater recharge (this does not include wetlands that have
- 66 incidental groundwater recharge benefits).

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

68 4.a, 4.b, or 4.c are not waters of the state. If an aquatic feature meets the wetland definition, the

69 burden is on the applicant to demonstrate that the wetland is not a water of the state.

70 **III. Wetland Delineation**

71 The permitting authority shall rely on any wetland area delineation from a final aquatic resource report,

72 ~~with a preliminary or approved jurisdictional determination issued by the United States~~ verified by the

73 U.S. Army Corps of Engineers (Corps) for the purposes of determining the extent of wetland waters of

74 the U.S. A delineation of non-federal any wetland areas potentially impacted by the project that are not

75 delineated in a final aquatic resource report verified by the Corps shall be performed using the methods

76 described in the three federal documents listed below (collectively referred to as “1987 Manual and

77 Supplements”) to determine whether the area meets the state definition of a wetland as defined above.

78 As described in the 1987 Manual and Supplements, an area “lacks vegetation” if it has less than 5

79 percent areal coverage of plants at the peak of the growing season. The methods shall be modified

80 only to allow for the fact that the lack of vegetation does not preclude the determination of such an area

81 that meets the definition of wetland. Terms as defined in these Procedures shall be used if there is

82 conflict with terms in the 1987 Manual and Supplements.

- 83 • Environmental Laboratory. 1987. U.S. Army Corps of Engineers Wetlands Delineation
- 84 Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station,
- 85 Vicksburg, MS.
- 86 • U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers
- 87 Wetland Delineation Manual: Arid West Region (Version 2.0). ed. J. S. Wakeley, R. W.
- 88 Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research
- 89 and Development Center.
- 90 • U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers
- 91 Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0).
- 92 ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S.
- 93 Army Engineer Research and Development Center.

94 **IV. Procedures for Regulation of Discharges of Dredged or Fill Material to**

95 **Waters of the State**

96 The purpose of this section is to establish application procedures for discharges of dredged or fill

97 material to waters of the state, which includes both waters of the U.S. and non-federal waters of the

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98 state. This section supplements existing state requirements for discharges of dredged or fill material to
99 waters of the U.S.⁴⁵ These Procedures include Appendix A, which contains relevant portions of the
100 U.S. EPA's Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredge or Fill
101 Material"⁶⁶ (Guidelines), 1980, with minor modifications to make them applicable to the state dredged or
102 fill program (hereafter State Supplemental Dredge or Fill Guidelines).⁶⁷ This section applies to all
103 applications for discharges of dredged or fill material to waters of the state submitted after [insert **the**
104 **effective date of the Plan Amendment**]. date that is six months after approval by the Office of
105 Administrative Law.⁸

106 **~~Project Application Submittal for Individual Orders~~**

107 Unless excluded by ~~Section~~section IV.D, applicants must file an application ~~to~~with the Water Boards for
108 any activity that could result in the discharge of dredged or fill material to waters of the state in
109 accordance with California Code of Regulations, title 23, section 3855.⁷⁹ The applicant may consult
110 with the Water Boards to determine whether a project could result in impacts to waters of the state
111 and/or discuss submittals that would meet the application requirements listed below. Discharges of
112 dredged or fill material or other waste material to areas that are not waters of the state, but that could
113 affect the quality of waters of the state, may be addressed under other Water Board regulatory
114 programs.

115 **A. Project Application Submittal for Individual Orders**

116 The requirements set forth in sections IV.A and IV.B apply only to individual orders. Applicants must
117 submit the items listed in subsection 1 to the permitting authority. In addition, applicants shall consult
118 with the permitting authority about the items listed in subsection 2. Within 30 days of receiving the

⁴⁵ California Code of Regulations, title 23, sections 3830-3869 (state's Clean Water Act (CWA) section 401 (33 USC § 1341) water quality certification program)

⁶⁶ 40 C.F.R. § 230.

⁶⁷ The State Supplemental Dredge ~~and~~or Fill Guidelines are included as Appendix A. Because ~~Appendix A is the State Supplemental Dredge or Fill Guidelines are~~ derived directly from the U.S. EPA's 404(b)(1) guidelinesGuidelines, it uses slightly different terms than terms used in sections I through V of these Procedures. ~~Appendix A~~The State Supplemental Dredge or Fill Guidelines will be applied in a manner consistent with sections I through V of these Procedures.

⁸ 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. The State Water Board may also enter into such written agreements after the adoption of these Procedures; 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.

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

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119 items listed in subsection 1, the permitting authority may require the applicant to submit one or more of
120 the items in subsection 2 for a complete application. Applicants are encouraged to consult with the
121 permitting authority to determine the appropriate level of detail for the items in subsections 1 (and 2, if
122 applicable). Within 30 days of receiving all of the required items, the permitting authority shall determine
123 whether the application is complete and notify the applicant accordingly. If the applicant's federal
124 license or permit application includes any of the information required in subsections 1 or 2 below, the
125 applicant may submit the federal application materials to satisfy the corresponding state application
126 information. If federal application materials are submitted as part of the state application, the applicant
127 shall indicate where the corresponding state application information can be found in the federal
128 application materials.

129 1. Items Required for a Complete Application

- 130 a. All items listed in California Code of Regulations, title 23, section 3856 "Contents of a Complete
131 Application."⁸¹⁰
- 132 b. If ~~waters of the U.S. are present, a final~~ the Corps requires an aquatic resource delineation
133 report, ~~with a preliminary or approved jurisdictional determination issued~~ a copy of the report
134 verified by the Corps. ~~c. — If waters of the state outside of federal jurisdiction are present, a~~
135 ~~delineation of those waters, including wetlands~~
- 136 c. A delineation of any waters that are not delineated in an aquatic resource delineation report
137 verified by the Corps. If such waters include wetlands, the wetlands must be delineated as
138 described in section III.
- 139 d. The dates upon which the overall project activity will begin and end~~;~~ and, if known, the date(s)
140 upon which the discharge(s) will take place.
- 141 e. Map(s) with a scale of at least 1:24000 (1" = 2000') and of sufficient detail to accurately show
142 (1) the boundaries of the lands owned or to be utilized by the applicant in carrying out the
143 proposed activity, including the grading limits, proposed land uses, and the location, dimensions
144 and type of any structures erected (if known) or to be erected and (2) all aquatic resources that
145 may qualify as waters of the state, within the boundaries of the project, and all aquatic
146 resources that may qualify as waters of the state outside of the boundary of the project that
147 could be ~~affected~~ impacted by the project. A map ~~submitted for a Corps' preliminary~~
148 ~~jurisdictional determination~~ verified by the Corps may satisfy this requirement if it includes all
149 potential waters of the state. The permitting authority may require that the map(s) be submitted
150 in electronic format (e.g., GIS shapefiles).
- 151 f. A description of the waters proposed to ~~receive a discharge of dredged~~ be impacted by the
152 dredge or fill ~~material, including~~ activity. The description should include the beneficial uses as
153 listed in the applicable water quality control plan. ~~The description should also include;~~ a
154 description of ~~discharge~~ the activity at each individual ~~impact~~ discharge or dredge location;
155 quantity of ~~impact~~ impacts to waters proposed to receive a discharge of dredged or fill material at
156 each location rounded to ~~at least~~ the nearest one-~~thousandth (0.001)~~ hundredth (0.01) of an acre,

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

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- 157 nearest linear foot, and quantity of impacts to waters proposed to be dredged at each dredging
158 location to the nearest cubic yard (as applicable); assessment of potential direct and indirect
159 impacts ~~to listed beneficial uses~~resulting from the discharge or dredging activity and potential
160 mitigation measures for those potential impacts ~~to beneficial uses~~, identification of existing water
161 quality impairment(s); the source of water quality impairment(s), if known; and the presence of
162 rare, threatened or endangered species¹¹ habitat.
- 163 g. An alternatives analysis,⁹¹² unless any of the following exemptions apply.
- 164 i. The project includes discharges to waters of the state outside of federal jurisdiction, but the
165 entire project would meet the terms and conditions of one or more Water Board certified
166 Corps' General Permits, if all discharges were to waters of the U.S. The permitting
167 authority will verify that the entire project would meet the terms and conditions of the
168 Corps' General Permit(s) if all discharges, including discharges to waters of the state
169 outside of federal jurisdiction, were to waters of the U.S. based on information supplied by
170 the applicant.
- 171 ii. The project meets the terms and conditions for coverage under an uncertified Corps'
172 General Permit. This exemption does not apply if the discharge of dredged or fill material
173 will directly impact:
- 174 a) more than two-tenths (0.2) of an acre or 300 linear feet of waters of the state;
175 b) habitat for rare, threatened, or endangered species;
176 c) wetlands or eel grass beds; or
177 d) Outstanding National Resource Waters or Areas of Special Biological
178 Significance.
- 179 iii. The project would be conducted in accordance with a watershed plan that has been
180 approved by the permitting authority and analyzed in an environmental document that
181 includes a sufficient alternatives analysis, monitoring provisions, and guidance on
182 compensatory mitigation opportunities.
- 183 iv. ~~iii.~~ The project is an Ecological Restoration and Enhancement Project.
- 184 v. ~~iv.~~ The project has no permanent impacts to aquatic resources and no impacts to ~~any bog,~~
185 ~~fen, playa, seep wetland, vernal pool, headwater creek, eelgrass bed, anadromous fish~~

¹¹ "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.).

⁹¹² "Alternatives analysis" as used in these Procedures refer to the analysis required by ~~Section~~section IV.A.(h) and ~~Appendix A, the~~ State ~~Supplement Dredged~~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. 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.

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- 186 ~~habitat, or~~ habitat for rare, threatened or endangered species, wetlands or eel grass beds,
187 Outstanding National Resource Waters or Areas of Special Biological Significance, and all
188 implementation actions in the restoration plan can reasonably be concluded within one
189 year.
- 190 h. If none of the above exemptions apply, the applicant must submit an alternatives analysis
191 consistent with the requirements of section 230.10 of the State Supplemental Dredge or Fill
192 Guidelines that allows the permitting authority to determine whether the proposed project is the
193 Least Environmentally Damaging Practicable Alternative (LEDPA). If the applicant submitted ~~a~~
194 ~~draft~~ information to the Corps to support an alternatives analysis ~~to the Corps~~, the applicant shall
195 provide ~~a copy~~ that information to the permitting authority. Such ~~alternatives~~
196 ~~analyses~~ information may satisfy some or all of the following requirements in accordance with
197 ~~Section~~ section IV.B.3. Alternatives analyses shall be completed in accordance with the
198 following tiers, ~~unless the permitting authority determines that a lesser level of analysis is~~
199 ~~appropriate.~~ The level of effort required for an alternatives analysis within each ~~tier~~ of the three
200 tiers shall be commensurate with the significance of the ~~project's potential threats to water~~
201 ~~quality and beneficial uses~~⁴⁰ impacts resulting from the discharge.¹³.
- 202 i. Tier 3 projects include any ~~project~~ discharge of dredged or fill material that directly impacts
203 more than two-tenths (0.2) of an acre or 300 linear feet of waters of the state, ~~or directly~~
204 ~~impacts a bog, fen, playa, seep wetland, vernal pool, headwater creek, eelgrass bed,~~
205 ~~anadromous fish habitat, or~~ habitat for rare, threatened or endangered species; wetlands
206 or eel grass beds, or Outstanding National Resource Waters or Areas of Special Biological
207 Significance, and is not a project that inherently cannot be located at an alternate location.
208 Tier 3 projects shall provide an analysis of off-site and on-site alternatives.
- 209 ii. Tier 2 projects include any ~~project~~ discharge of dredged or fill material that directly impacts
210 more than one tenth (0.1) and less than or equal to two tenths (0.2) of an acre or more
211 than 100 and less than or equal to 300 linear feet of waters of the state unless it meets the
212 criteria for a Tier 3 project, or any project that inherently cannot be located at an alternate
213 location (unless it meets the size requirements set forth in Tier 1). Tier 2 projects shall
214 provide an analysis of only on-site alternatives.
- 215 iii. Tier 1 projects include any ~~project~~ discharge of dredged or fill material that directly impacts
216 less than or equal to one tenth (0.1) of an acre or less than or equal to 100 linear feet of
217 waters of the state, unless it is meets the criteria for a Tier 3 project ~~because it impacts a~~
218 ~~specified habitat type.~~ Tier 1 projects shall provide a description of any steps that have
219 been or will be taken to avoid and minimize loss of, or significant adverse impacts to,
220 beneficial uses of waters of the state.
- 221 2. Additional Information Required for a Complete Application

⁴⁰¹³ As used below, "impacts" include both permanent and temporary impacts.

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- 222 a. If required by the permitting authority on a case-by-case basis, ~~if the wetland area delineations~~
223 ~~were conducted in the dry season~~, supplemental field data from the wet season to substantiate
224 dry season delineations, as is consistent with the 1987 Manual and Supplements.
- 225 ~~b. If required by the permitting authority on a case-by-case basis, an assessment of the potential~~
226 ~~impacts associated with climate change related to the proposed project and any proposed~~
227 ~~compensatory mitigation, and any measures to avoid or minimize those potential impacts.~~
- 228 b. ~~c.~~ If compensatory mitigation is required by the permitting authority, on a case-by-case basis, ~~an~~
229 ~~assessment of the overall condition of aquatic resources proposed to receive a discharge of~~
230 ~~dredged or fill material and their likely stressors, using an assessment method approved by the~~
231 ~~permitting authority and~~ a draft compensatory mitigation plan developed using a watershed
232 approach containing the items listed below. Compensatory mitigation plans are not required for
233 Ecological Restoration and Enhancement Projects. For permittees who intend to fulfill their
234 compensatory mitigation obligations by securing credits from approved mitigation banks or in-
235 lieu fee programs, their mitigation plans need include only ~~the~~ items i, ii, and iii, as described
236 below, as well as information required in ~~Appendix A~~ the State Supplemental Dredge or Fill
237 Guidelines, section 230.94 (c)(5) and (c)(6), and the name of the specific mitigation bank or in-
238 lieu fee program proposed to be used.
- 239 Draft compensatory mitigation plans shall comport with the State Supplemental Dredge or Fill
240 Guidelines, Subpart J, and include the ~~elements~~ items listed below.
- 241 i. A watershed profile for the project evaluation area for both the proposed dredged or fill
242 project and the proposed compensatory mitigation project.
- 243 ii. An assessment of the overall condition of aquatic resources proposed to be impacted by
244 the project and their likely stressors, using an assessment method approved by the
245 permitting authority.
- 246 iii. ~~ii.~~ A description of how the project impacts and compensatory mitigation would not cause a
247 net loss of the overall abundance, diversity, and condition of aquatic resources, based on
248 the watershed profile. If the compensatory mitigation is located in the same watershed as
249 the project, no net loss will be determined on a watershed basis. If the compensatory
250 mitigation and project impacts are located in multiple watersheds, no net loss will be
251 determined considering all affected watersheds collectively. The level of detail in the plan
252 shall be sufficient to accurately evaluate whether compensatory mitigation offsets the
253 adverse impacts attributed to a project.
- 254 iv. ~~iii.~~ Preliminary information about ecological performance standards, monitoring, and long-
255 term protection and management, as described in the State Supplemental Dredge or Fill
256 Guidelines.
- 257 v. ~~iv.~~ A timetable for implementing the compensatory mitigation plan.
- 258 vi. ~~v.~~ If the compensatory mitigation plan includes buffers, design criteria and monitoring
259 requirements for those buffers.

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- 260 vii. ~~vi.~~ If the compensatory mitigation involves restoration or establishment as the form of
261 mitigation, applicants shall notify as applicable, state and federal land management
262 agencies, airport land use commission, fire control districts, flood control districts, local
263 mosquito-vector control district(s), and any other interested local entities prior to initial site
264 selection. These entities should be notified as early as possible during the initial
265 compensatory mitigation project design stage.
- 266 viii. ~~e.~~ If required by the permitting authority, an assessment of reasonably foreseeable impacts
267 to the compensatory mitigation associated with climate change, and any measures to
268 avoid or minimize those potential impacts.
- 269 c. If required by the permitting authority on a case-by-case basis, if project activities include in-
270 water work or water diversions, a proposed water quality monitoring plan to monitor compliance
271 with water quality objectives of the applicable water quality control plan. At a minimum, the plan
272 should include type and frequency of sampling for each applicable parameter.
- 273 d. ~~e.~~ In all cases where temporary impacts are proposed, a draft restoration plan that outlines
274 design, implementation, assessment, and maintenance for restoring areas of temporary impact
275 to pre-project conditions. The design components shall include the objectives of the restoration
276 plan; grading plan of disturbed areas to pre-project contours; a planting palette with plant
277 species native to the area; seed collection locations; and an invasive species management plan.
278 The implementation component shall include all proposed actions to implement the plan (e.g.,
279 re-contouring, initial planting, site stabilization, removal of temporary structures) and a schedule
280 for completing those actions. The maintenance and assessment components shall include a
281 description of performance standards used to evaluate attainment of objectives; the timeframe
282 for determining attainment of performance standards; and maintenance requirements (e.g.,
283 watering, weeding, replanting and invasive species control). The level of detail in the restoration
284 plan shall be sufficient to accurately evaluate whether the restoration ~~offsets~~addresses the
285 adverse temporary impacts attributed to a project.
- 286 Prior to issuance of the Order, the applicant shall submit a final restoration plan that describes
287 the restoration of all temporarily disturbed areas to pre-project conditions.
- 288 e. ~~f.~~ For all Ecological Restoration and Enhancement Projects, a draft assessment plan including
289 the following: project objectives; description of performance standards used to evaluate
290 attainment of objectives; protocols for condition assessment; the timeframe and responsible
291 party for performing condition assessment; and assessment schedule. A draft assessment plan
292 shall provide for at least one assessment of the overall condition of aquatic resources and their
293 likely stressors, using an appropriate assessment method approved by the permitting authority,
294 prior to restoration and/or enhancement and two years following restoration and/or
295 enhancement to determine success of the restoration and/or enhancement.

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

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

- 301 a. A sequence of actions has been taken to first avoid, then to minimize, and lastly compensate

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- 302 for adverse impacts to waters of the state;
- 303 b. The potential impacts will not contribute to a net loss of the overall abundance, diversity, and
304 condition of aquatic resources in a watershed (or multiple watersheds when compensatory
305 mitigation is permitted in another watershed as set forth in section IV.B.5(d));
- 306 c. The discharge of dredged or fill material will not violate water quality standards and will be
307 consistent with all applicable water quality control plans and policies for water quality control;
308 and
- 309 d. The discharge of dredged or fill material will not cause or contribute to significant degradation of
310 the waters of the state.
- 311 2. The permitting authority shall rely on any final aquatic resource report, ~~with a preliminary or~~
312 ~~approved jurisdictional determination issued~~ verified by the Corps to determine boundaries of
313 waters of the U.S. For all other wetland area delineations, the permitting authority shall review and
314 approve delineations that are performed using the methods described in ~~Section~~section III.
- 315 3. Alternatives Analysis Review Requirements:
- 316 a. The purpose of the alternatives analysis is to identify the LEDPA. The permitting authority will
317 be responsible for determining the sufficiency of an alternatives analysis except as described in
318 3(b) below. In all cases, the alternatives analysis must establish that the proposed project
319 alternative is the LEDPA in light of all potential direct, secondary (indirect), and cumulative
320 impacts on the physical, chemical, and biological elements of the aquatic ecosystem.
- 321 b. Discharges to waters of the U.S.
- 322 In reviewing and approving the alternatives analysis for discharges of dredged or fill material
323 that impact waters of the U.S., the permitting authority shall defer to the Corps' determinations
324 on the adequacy of the alternatives analysis, or rely on a draft alternatives analysis if no final
325 determination has been made, unless the Executive Officer or Executive Director determines
326 that (1) the permitting authority was not provided an adequate opportunity to collaborate in the
327 development of the alternatives analysis, (2) the alternatives analysis does not adequately
328 address issues identified in writing by the Executive Officer or Executive Director to the Corps
329 during the development of the alternatives analysis, or (3) the proposed project and all of the
330 identified alternatives would not comply with water quality standards.
- 331 If the project also includes discharges to waters of the state outside of federal jurisdiction, the
332 permitting authority shall require the applicant to supplement the alternatives analysis to include
333 waters of the state outside of federal jurisdiction. If an alternatives analysis is not required by
334 the Corps for ~~waters of the U.S. impacted by the discharge~~ discharges of dredged or fill material
335 to waters of the U.S., the permitting authority shall require an alternatives analysis for the entire
336 project in accordance with the State Supplemental Dredge or Fill Guidelines, unless the project
337 is exempt under ~~Section~~section IV.A.4-1(g) above.
- 338 For discharges of dredged or fill material to a water of the U.S. that meets the Water Boards'
339 definition of a wetland (set forth in section II), but that the Corps does not classify as a special
340 aquatic site (as defined in subpart E of U.S. EPA's section 404(b)(1) Guidelines), the permitting
341 authority shall not apply the presumption set forth in the State Supplemental Dredge or Fill
342 Guidelines, section 230.10(a)(3) to those discharges.
-

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- 343 4. Prior to or concurrent with issuance of the Order, the permitting authority will ~~review and~~ approve
344 the final restoration plan for temporary impacts.
- 345 5. Compensatory Mitigation
- 346 a. Compensatory mitigation, in accordance with the State Supplemental Dredge or Fill Guidelines,
347 Subpart J, may be required to ensure that an activity complies with these Procedures.
- 348 b. Where feasible, the permitting authority will consult and coordinate with any other public
349 agencies that have concurrent mitigation requirements in order to achieve multiple
350 environmental benefits with a single mitigation project, thereby reducing the cost of compliance
351 to the applicant.
- 352 c. Amount: The amount of compensatory mitigation will be determined on a project-by-project
353 basis in accordance with State Supplemental Dredge or Fill Guidelines, section 230.93(f). The
354 permitting authority may take into account recent anthropogenic degradation to the aquatic
355 resource and the potential and existing functions and conditions of the aquatic resource. ~~A~~
356 ~~minimum of one-to-one acreage or length of stream reach replacement is necessary to~~
357 ~~compensate for wetland or stream losses unless an appropriate function or condition~~
358 ~~assessment method clearly demonstrates, on an exceptional basis, that a lesser amount is~~
359 ~~sufficient. A reduction in the mitigation ratio for compensatory mitigation will be considered by~~
360 ~~the permitting authority~~ The permitting authority may reduce the amount of compensatory
361 mitigation if buffer areas adjacent to the compensatory mitigation are also required to be
362 maintained as part of the compensatory mitigation management plan. The amount of
363 compensatory mitigation required by the permitting authority will vary depending on which of the
364 following strategies the applicant uses to locate the mitigation site within a watershed.
- 365 Strategy 1: Applicant locates compensatory mitigation using a watershed approach based on a
366 watershed profile developed from a watershed plan that: (1) has been approved by the
367 permitting authority and analyzed in an environmental document, (2) includes monitoring
368 provisions, and (3) includes guidance on compensatory mitigation opportunities;
- 369 Strategy 2: Applicant locates compensatory mitigation using a watershed approach based on a
370 watershed profile developed for a project evaluation area, and demonstrates that the mitigation
371 project will contribute to the sustainability of watershed functions and the overall health of the
372 watershed area's aquatic resources.
- 373 Generally, the amount of compensatory mitigation required under Strategy 1 will be less than
374 the amount of compensatory mitigation required under Strategy 2 since the level of certainty
375 that a compensatory mitigation project will meet its performance standards increases if the
376 compensatory mitigation project complies with a watershed plan as described above. Certainty
377 increases when there is a corresponding increase in understanding of watershed conditions,
378 which is increased when using a watershed plan as described above to determine
379 compensatory mitigation requirements. A minimum of one-to-one mitigation ratio is required to
380 compensate for wetland or stream losses when compensatory mitigation is required.
- 381 d. Type and Location: The permitting authority will evaluate the applicant's proposed mitigation
382 type and location based on the applicant's use of a watershed approach based on a watershed
383 profile. The permitting authority will determine the appropriate type and location of
384 compensatory mitigation based on watershed conditions, impact size, location and spacing,

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385 aquatic resource values, relevant watershed plans, and other considerations.

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

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

400 ~~The~~Generally, the permitting authority will approve the final compensatory mitigation plan when
401 it issues the Order. Where compliant with CEQA, the permitting authority may approve the final
402 compensatory mitigation plan after it issues the Order. In such cases the permitting authority
403 shall include as a condition of ~~an~~the Order that the applicant receive approval of ~~a~~the final
404 mitigation plan prior to discharging dredged or fill ~~materials~~material to waters of the state. ~~In this~~
405 ~~case, the permitting authority will approve~~ and shall specify a process for approving the final
406 mitigation plan ~~by amending the Order.~~

407 f. Financial Security: Where deemed necessary by the permitting authority, provision of a
408 financial security (e.g., letter of credit or performance bond) shall be a condition of the Order. In
409 this case, the permitting authority will approve the financial security to ensure compliance with
410 compensatory mitigation plan requirements. The financial security shall be in a form consistent
411 with the California Constitution and state law.

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

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

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

426 **C. General Orders**

~~July 21, 2017~~Final Draft Noticed: January 2019

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427 Discharges of dredged or fill material to waters of the state that are regulated under a general order are
428 not subject to the requirements set forth in sections IV.A and IV.B. Applicants applying to enroll under a
429 general order shall follow the instructions specified in the general order for obtaining coverage.

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

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

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

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

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

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

447 a. Activities that are exempt under CWA section 404(f) (33 USC § 1344(f)). The following federal
448 regulations (Table 1), guidance letters (Table 2), and memoranda (Table 3), that have been
449 adopted pursuant to CWA section 404(f) or that are used to interpret or implement section
450 404(f) shall be used when determining whether certain activities are excluded from these
451 procedures. These documents are hereby incorporated by reference and shall apply to all
452 waters of the state. Consistent with CWA section 404(f)(2) and 40 CFR section 232.3, any
453 discharge of dredged or fill material to a water of the state incidental to any of these activities is
454 not exempt under CWA section 404(f) and shall be subject to the application procedures set
455 forth in sections IV.A and IV.B, if (1) the purpose of the activity is bringing a water of the state
456 into a use to which it was not previously subject, where the flow or circulation of water of the
457 state may be impaired or the reach of such waters be reduced, or (2) the discharge contains
458 any toxic pollutant listed in CWA section 307.

459

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460

b. Table 1: CFR References⁴⁴¹⁴

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

461

462

463

Table 2: Applicable U.S. Army Corps of Engineers (Corps) Regulatory Guidance Letters (RGLs)⁴²¹⁵

RGL	Title
82-03	Irrigation Exemption in Section 404(F)(1)(C) of the Clean Water Act
84-01	Regulatory Jurisdiction Over Vegetative Operations
84-05	Fifth Circuit Decision in <i>Avoyelles vs. Marsh</i>
85-04	Agricultural Conversion
86-01	Exemptions to Clean Water Act – Plowing
86-03	Exemption of Farm and Forest Roads
87-07	Exemption for Drainage Ditch Maintenance
87-09	Exemption for Construction or Maintenance of Farm or Stock Ponds
92-02	Water Dependency and Cranberry Production
93-03	Rescission of RGL's 90-5 and 90-8
96-02	Applicability of Exemptions under Section 404(f) to “Deep Ripping” Activities in Wetlands
07-02	Exemptions for Construction or Maintenance of Irrigation Ditches and Maintenance of Drainage Ditches Under Section 404 of Clean Water Act

464

465

Table 3: Memoranda⁴³¹⁶

⁴⁴¹⁴ The documents in Table 1 are available at the U.S. Government Printing Office, Code of Federal Regulations webpage: <http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=C.F.R.>

⁴²¹⁵ The documents in Table 2 are available at the U.S. Army Corps of Engineers, Regulatory Program and Permits, Related Resources, Regulatory Guidance Letters webpage: <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/GuidanceLetters.aspx>

⁴³¹⁶ These documents are available at the U.S. Army Corps of Engineers Regulatory Program and Permits, Related Resources, Memoranda of Understanding/Agreement webpage: <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/MOUMOAs.aspx>

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

466

467 ~~b. e.~~ Suction dredge mining activities for mineral recovery regulated under CWA section 402.

468 c. Routine operation and maintenance activities that result in discharge of dredged or fill material
469 to artificially-created waters currently used and maintained primarily for one or more of the
470 purposes listed in section II.4.d. This exclusion does not apply to the discharge of dredged or fill
471 material to (a) a water of the U.S., (b) a water specifically identified in a water quality control
472 plan, (c) a water created by modification of a water of the state, or (d) a water approved by an
473 agency as compensatory mitigation.

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

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

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

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

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

491 For activities associated with (1) an appropriation of water subject to Part 2 (commencing with section
492 1200) of Division 2 of the Water Code, (2) a hydroelectric facility where the proposed activity requires a
493 Federal Energy Regulatory Commission (FERC) license or amendment to a FERC license, or (3) any
494 other diversion of water for beneficial use, the Division of Water Rights will inform the applicant whether
495 the application procedures in sections IV.A and IV.B will apply to the application.

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

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

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496 **V. Definitions**

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

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

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

507 **Alternatives Analysis** is the process of analyzing project alternatives, including the proposed project,
508 to determine the alternative that is ~~both practicable and~~ the least environmentally damaging practicable
509 alternative (LEDPA).

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

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

517 [Definition moved to the end.]

518 ~~**Discharge of Dredged Material** means addition of dredged material, material that is excavated or
519 dredged from waters of the state, including redeposit of dredged material other than incidental fallback
520 within, to the waters of state~~ **or Fill Material** shall have the same meanings as they are used in the
521 federal Clean Water Act and 40 CFR section 232.2, but (1) shall include discharges to waters of the
522 state that are not waters of the U.S. and (2) any demonstrations described in section 232.2(3)(i) shall
523 be made to the permitting authority instead of the Corps or U.S. EPA.

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

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

529 **Ecological Restoration and Enhancement Project** means the project is voluntarily undertaken for the
530 purpose of assisting or controlling the recovery of an aquatic ecosystem that has been degraded,
531 damaged or destroyed to restore some measure of its natural condition and to enhance the beneficial
532 uses, including potential beneficial uses of water. Such projects are undertaken: 1) in accordance with
533 the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a
534 wetland establishment agreement, between the landowner and a) a federal or state resource agency,
535 including, but not limited to, the U.S. Fish and Wildlife Service, Natural Resources Conservation

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536 Service, Farm Service Agency, National Marine Fisheries Service, National Oceanic and Atmospheric
537 Administration, U.S. Forest Service, U.S. Bureau of Land Management, California Department of Fish
538 and Wildlife, California Wildlife Conservation Board, California Coastal Conservancy, ~~or other federal or~~
539 ~~state resource agency or~~ or the Delta Conservancy; b) a local agency with the primary function of
540 managing land or water for wetland habitat purposes; or c) a non-governmental conservation
541 organization; or 2) by a state or federal agency that is statutorily tasked with natural resource
542 management. These projects do not include the conversion of a stream or natural wetland to uplands
543 or stream channelization. It is recognized that ~~ecological restoration and enhancement~~
544 ~~projects~~ Ecological Restoration and Enhancement Projects may require filling gullied stream channels
545 and similar rehabilitative activities to re-establish stream and meadow hydrology. Changes in wetland
546 plant communities that occur when wetland hydrology is more fully restored during rehabilitation
547 activities are not considered a conversion to another aquatic habitat type. These projects also do not
548 include actions required under a Water Board ~~order (e.g., WDRs, waivers of WDRs, or water quality~~
549 ~~certification)~~ Order for mitigation, actions to service required mitigation, or actions undertaken for the
550 primary purpose of land development.

551 **Environmental Document** means a document prepared for compliance with the California
552 Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA).

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

555 **LEDPA** means the least environmentally damaging practicable alternative. The determination of
556 practicable alternatives shall be consistent with the State Supplemental Dredge or Fill Guidelines,
557 section 230.10(a).

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

563 **Order** means ~~Waste Discharge Requirements~~ waste discharge requirements, waivers of ~~Waste~~
564 ~~Discharge Requirements~~ waste discharge requirements, or water quality certification.

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

567 **Project** means the whole of an action that includes a discharge of dredged or fill material to waters of
568 the state.

569 **Project Evaluation Area** means an area that includes the project impact site, and/or the compensatory
570 mitigation site, and is sufficiently large to evaluate the effects of the project and/or the compensatory
571 mitigation on the abundance, diversity, and condition of aquatic resources in an ecologically meaningful
572 unit of the watershed. The size and location of the ecologically meaningful unit shall be based on a
573 reasonable rationale.

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

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

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

588 **Watershed Plan** means a document developed in consultation with relevant stakeholders, for the
589 specific goal of aquatic resource restoration, establishment, enhancement, and preservation within a
590 watershed. A watershed plan addresses aquatic resource conditions in the watershed, multiple
591 stakeholder interests, and land uses. Watershed plans should include information about implementing
592 the watershed plan. Watershed plans may also identify priority sites for aquatic resource restoration
593 and protection. Examples of watershed plans include special area management plans, advance
594 identification programs, and wetland management plans. The permitting authority may approve the use
595 of Habitat Conservation Plans (HCPs) and Natural Community Conservation Plans (NCCPs) as
596 watershed plans.

597 **Watershed Profile** means a compilation of data or information on the abundance, diversity, and
598 condition of aquatic resources in a project evaluation area. The watershed profile shall include a map
599 and a report characterizing the location, abundance and diversity of aquatic resources in the project
600 evaluation area, assessing the condition of aquatic resources in the project evaluation area, and
601 describing the environmental stress factors affecting that condition.

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

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

614

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

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619 **Appendix A: State Supplemental Dredge or Fill Guidelines**

620 It is the intent of the Water Boards to be consistent with the U.S. EPA's 404(b)(1) Guidelines where
621 feasible. Due to jurisdictional and procedural differences, some modifications to the U.S. EPA's
622 404(b)(1) Guidelines were necessary. Generally, these changes or deletions were made to reduce
623 redundancy (especially where sufficiently described elsewhere in these Procedures) and to account for
624 other state requirements. Note that the numbering scheme of the U.S. EPA's 404(b)(1) Guidelines has
625 been retained in these State Supplemental Dredge or Fill Guidelines for the benefit of practitioners who
626 are familiar with the ~~federal~~ U.S. EPA's 404(b)(1) Guidelines. The State Supplemental Dredge or Fill
627 Guidelines describe how the Water Boards will implement the U.S. EPA's 404(b)(1) Guidelines under
628 these Procedures. The definitions contained herein apply to these Procedures, including the State
629 Supplemental Dredge or Fill Guidelines.

630 **Subpart A – General**¹⁶

631 § 230.3 Definitions.

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

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

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

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

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

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

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

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

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

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652 § 230.6 Adaptability¹⁷

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

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

669 (c) An essential part of the evaluation process involves making determinations as to the relevance
670 of any portion(s) of the Guidelines and conducting further evaluation only as needed. However,
671 where portions of the Guidelines review procedure are “short form” evaluations, there still must be
672 sufficient information (including consideration of both individual and cumulative impacts) to support
673 the decision of whether to specify the site for disposal of dredged or fill material and to support the
674 decision to curtail or abbreviate the evaluation process. The presumption against the discharge in ~~§~~
675 ~~230.1~~ [§ 230.10](#) applies to this decision-making.

676 **Subpart B – Compliance with Guidelines¹⁸**

677 § 230.10 Restrictions on Discharge

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

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

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

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

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

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- 686 (2) An alternative is practicable if it is available and capable of being done after taking into
687 consideration cost, existing technology, and logistics in light of overall project purposes. If it is
688 otherwise a practicable alternative, an area not presently owned by the applicant which could
689 reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of
690 the proposed activity may be considered.
- 691 (3) Where activity associated with a discharge which is proposed for a special aquatic site (as
692 defined in subpart E) does not require access or proximity to or siting within the special aquatic
693 site in question to fulfill its basic purpose (i.e., is not "water dependent"), practicable alternatives
694 that do not involve special aquatic sites are presumed to be available, unless clearly
695 demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site,
696 all practicable alternatives to the proposed discharge which do not involve a discharge into a
697 special aquatic site are presumed to have less adverse impact on the aquatic ecosystem,
698 unless clearly demonstrated otherwise.
- 699 (b) No discharge of dredged or fill material shall be permitted if it:
- 700 (1) Causes or contributes, after consideration of disposal site dilution and dispersion, to
701 violations of any applicable State water quality standard;
- 702 (2) Violates any applicable toxic effluent standard or prohibition under section 307 of the Clean
703 Water Act;
- 704 (c) No discharge of dredged or fill material shall be permitted which will cause or contribute to
705 significant degradation of the waters of the state. Under these Guidelines, effects contributing to
706 significant degradation considered individually or collectively, include:
- 707 (1) Significantly adverse effects of the discharge of pollutants on human health or welfare,
708 including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife,
709 and special aquatic sites;
- 710 (2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and
711 other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and
712 spread of pollutants or their byproducts outside of the disposal site through biological, physical,
713 and chemical processes.
- 714 (3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity,
715 productivity, and stability. Such effects may include, but are not limited to, loss of fish and
716 wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce
717 wave energy; or
- 718 (4) Significantly adverse effects of the discharge of pollutants on recreational, aesthetic, and
719 economic values.
- 720 (d) No discharge of dredged or fill material shall be permitted unless appropriate and practicable
721 steps have been taken which will minimize potential adverse impacts of the discharge on the
722 aquatic ecosystem. Subpart H identifies such possible steps.

723 **Subpart E – Potential Impacts on Special Aquatic Sites**

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724 § 230.40 Sanctuaries and refuges⁴⁹

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

727 § 230.41 Wetlands.

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

729 § 230.42 Mud Flats.

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

736 § 230.43 Vegetated shallows.

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

740 § 230.45 Riffle and Pool Complexes.

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

747 **Subpart H – Actions to Minimize Adverse Effects**

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

752 § 230.70 Actions concerning the location of the discharge.

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

- 755 (a) Locating and confining the discharge to minimize smothering of organisms;
756 (b) Designing the discharge to avoid a disruption of periodic water inundation patterns;
757 (c) Selecting a disposal site that has been used previously for dredged material discharge;

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- 758 (d) Selecting a disposal site at which the substrate is composed of material similar to that being
759 discharged, such as discharging sand on sand or mud on mud;
- 760 (e) Selecting a disposal site, the discharge point, and the method of discharge to minimize the
761 extent of any plume;
- 762 (f) Designing the discharge of dredged or fill material to minimize or prevent the creation of standing
763 bodies of water in areas of normally fluctuating water levels, and minimize or prevent the drainage
764 of areas subject to such fluctuations.
- 765 § 230.71 Actions concerning the material to be discharged²⁰
- 766 The effects of a discharge can be minimized by treatment of, or limitations on the material itself, such
767 as:
- 768 (a) Disposal of dredged material in such a manner that physiochemical conditions are maintained_z
769 and the potency and availability of pollutants are reduced.
- 770 (b) Limiting the solid, liquid, and gaseous components of material to be discharged at a particular
771 site;
- 772 (c) Adding treatment substances to the discharge material;
- 773 (d) Utilizing chemical flocculants to enhance the deposition of suspended particulates in diked
774 disposal areas.
- 775 § 230.72 Actions controlling the material after discharge.
- 776 The effects of the dredged or fill material after discharge may be controlled by:
- 777 (a) Selecting discharge methods and disposal sites where the potential for erosion, slumping or
778 leaching of materials into the surrounding aquatic ecosystem will be reduced. These sites or
779 methods include, but are not limited to:
- 780 (1) Using containment levees, sediment basins, and cover crops to reduce erosions:
- 781 (2) Using lined containment areas to reduce leaching where leaching of chemical constituents
782 from the discharged material is expected to be a problem;
- 783 (b) Capping in-place contaminated material with clean material or selectively discharging the most
784 contaminated material first to be capped with the remaining material;
- 785 (c) Maintaining and containing discharged material properly to prevent point and nonpoint sources
786 of pollution;
- 787 (d) Timing the discharge to minimize impact, for instance during periods of unusual high _zwater
788 flows, wind, wave, and tidal actions.
- 789 § 230.73 Actions affecting the method of dispersion.
- 790 The effects of a discharge can be minimized by the manner in which it is dispersed, such as:

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- 791 (a) Where environmentally desirable, distributing the dredged material widely in a thin layer at the
792 disposal site maintain natural substrate contours and elevation;
- 793 (b) Orienting a dredged or fill material mound to minimize undesirable obstruction to the water
794 current or circulation pattern, and utilizing natural bottom contours to minimize the size of the
795 mound;
- 796 (c) Using silt screens or other appropriate methods to confine suspended particulate/turbidity to a
797 small area where settling or removal can occur;
- 798 (d) Making use of currents and circulation patterns to mix, disperse and dilute the discharge;
- 799 (e) Minimizing water column turbidity by using a submerged diffuser system. A similar effect can be
800 accomplished by submerging pipeline discharges or otherwise releasing materials near the bottom;
- 801 (f) Selecting sites or managing discharges to confine and minimize the release of suspended
802 particulates to give decreased turbidity levels and to maintain light penetration for organisms;
- 803 (g) Setting limitations on the amount of material to be discharged per unit of time or volume of
804 receiving water.

805 § 230.74 Actions related to technology.

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

- 809 (a) Using appropriate equipment or machinery, including protective devices, and the use of such
810 equipment or machinery in activities related to the discharge of dredged or fill material;
- 811 (b) Employing appropriate maintenance and operation on equipment or machinery, including
812 adequate training, staffing, and working procedures;
- 813 (c) Using machinery and techniques that are especially designed to reduce damage to wetlands.
814 This may include machines equipped with devices that scatter rather than mound excavated
815 materials, machines with specially designed wheels or tracks, and the use of mats under heavy
816 machines to reduce wetland surface compaction and rutting;
- 817 (d) Designing access roads and channels spanning structures using culverts, open channels, and
818 diversions that will pass both low and high water flows, accommodate fluctuating water levels, and
819 maintain circulation and faunal movement;
- 820 (e) Employing appropriate machinery and methods of transport of the material for discharge.

821 § 230.75 Actions affecting plant and animal populations.²⁴

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

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

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- 825 (b) Selecting sites or managing discharges to prevent or avoid creating habitat conducive to the
826 development of undesirable predators or species which have a competitive edge ecologically over
827 indigenous plants or animals;
- 828 (c) Avoiding sites having unique habitat or other value, including habitat of threatened or
829 endangered species;
- 830 (d) Using planning and construction practices to institute habitat development and restoration to
831 produce a new or modified environmental state of higher ecological value by displacement of some
832 or all of the existing environmental characteristics. Habitat development and restoration techniques
833 can be used to minimize adverse impacts and to compensate for destroyed habitat. Additional
834 criteria for compensation measures are provided in subpart J of this part. Use techniques that have
835 been demonstrated to be effective in circumstances similar to those under consideration wherever
836 possible. Where proposed development and restoration techniques have not yet advanced to the
837 pilot demonstration stage, initiate their use on a small scale to allow corrective action if
838 unanticipated adverse impacts occur;
- 839 (e) Timing discharge to avoid spawning or migration seasons and other biologically critical time
840 periods;
- 841 (f) Avoiding the destruction of remnant natural sites within areas already affected by development.
- 842 § 230.76 Actions affecting human use.
- 843 Minimization of adverse effects on human use potential may be achieved by:
- 844 (a) Selecting discharge sites and following discharge procedures to prevent or minimize any
845 potential damage to the aesthetically pleasing features of the aquatic site (e.g. viewscales),
846 particularly with respect to water quality;
- 847 (b) Selecting disposal sites which are not valuable as natural aquatic areas;
- 848 (c) Timing the discharge to avoid the seasons or periods when human recreational activity
849 associated with the aquatic site is most important;
- 850 (d) Following discharge procedures which avoid or minimize the disturbance of aesthetic features
851 on an aquatic site or ecosystem;
- 852 (e) Selecting sites that will not be detrimental or increase incompatible human activity, or require the
853 need for frequent dredge or fill maintenance activity in remote fish and wildlife areas;
- 854 (f) Locating the disposal site outside of the vicinity of a public water supply intake.
- 855 § 230.77 Other actions.
- 856 (a) In the case of fills, controlling runoff and other discharges from activities to be conducted on the
857 fill;
- 858 (b) In the case of dams, designing water releases to accommodate the needs of fish and wildlife;
- 859 (c) In dredging projects funded by Federal agencies other than the Corps of Engineers, maintain
860 desired water quality of the return discharge through agreement with the Federal funding authority
861 on scientifically defensible pollutant concentration levels in addition to any applicable water quality
862 standards;

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

866 **Subpart J – Compensatory Mitigation for Losses of Aquatic Resources²²**

867 § 230.91 Purpose and general considerations.

868 (a) Purpose.

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

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

876 § 230.92 Definitions.²³

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

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

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

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

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

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- 896 Condition means the relative ability of an aquatic resource to support and maintain a community of
897 organisms having a species composition, diversity, and functional organization comparable to
898 reference aquatic resources in the region.
- 899 Credit means a unit of measure (e.g., a functional or areal measure or other suitable metric)
900 representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The
901 measure of aquatic functions is based on the resources restored, established, enhanced, or
902 preserved.
- 903 Days means calendar days.
- 904 Debit means a unit of measure (e.g., a functional or areal measure or other suitable metric)
905 representing the loss of aquatic functions at an impact or project site. The measure of aquatic
906 functions is based on the resources impacted by the authorized activity.
- 907 Enhancement means the manipulation of the physical, chemical, or biological characteristics of an
908 aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s).
909 Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a
910 decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic
911 resource area.²⁴
- 912 Establishment (creation) means the manipulation of the physical, chemical, or biological
913 characteristics present to develop an aquatic resource that did not previously exist at an upland site.
914 Establishment results in a gain in aquatic resource area and functions.
- 915 Functional capacity means the degree to which an area of aquatic resource performs a specific
916 function.
- 917 Functions means the physical, chemical, and biological processes that occur in ecosystems.
- 918 Impact means adverse effect.
- 919 In-kind means a resource of a similar structural and functional type to the impacted resource.
- 920 In-lieu fee program means a program involving the restoration, establishment, enhancement, and/or
921 preservation of aquatic resources through funds paid to a governmental or non-profit natural
922 resources management entity to satisfy compensatory mitigation requirements for Orders. Similar to
923 a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose
924 obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor.
925 However, the rules governing the operation and use of in-lieu fee programs are somewhat different
926 from the rules governing operation and use of mitigation banks. The operation and use of an in-lieu
927 fee program are governed by an in-lieu fee program instrument.
- 928 In-lieu fee program instrument means the legal document for the establishment, operation, and use of
929 an in-lieu fee program.
- 930 Instrument means mitigation banking instrument or in-lieu fee program instrument.

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- 931 Mitigation bank means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian
932 areas) are restored, established, enhanced, and/or preserved for the purpose of providing
933 compensatory mitigation for impacts authorized by Orders. In general, a mitigation bank sells
934 compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is
935 then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are
936 governed by a mitigation banking instrument.
- 937 Mitigation banking instrument means the legal document for the establishment, operation, and use of
938 an in-lieu fee program.
- 939 Off-site means an area that is neither located on the same parcel of land as the impact site, nor on a
940 parcel of land contiguous to the parcel containing the impact site.
- 941 On-site means an area located on the same parcel of land as the impact site, or on a parcel of land
942 contiguous to the impact site.
- 943 Out-of-kind means a resource of a different structural and functional type from the impacted resource.
- 944 Performance standards are observable or measurable physical (including hydrological), chemical
945 and/or biological attributes that are used to determine if a compensatory mitigation project meets its
946 objectives.²⁵
- 947 Permittee-responsible mitigation means an aquatic resource restoration, establishment,
948 enhancement, and/or preservation activity undertaken by the permittee (or an authorized agent or
949 contractor) to provide compensatory mitigation for which the permittee retains full responsibility.
- 950 Preservation means the removal of a threat to, or preventing the decline of, aquatic resources by an
951 action in or near those aquatic resources. This term includes activities commonly associated with the
952 protection and maintenance of aquatic resources through the implementation of appropriate legal and
953 physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.
- 954 Re-establishment means the manipulation of the physical, chemical, or biological characteristics of a
955 site with the goal of returning natural/historic functions to a former aquatic resource. Re-
956 establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource
957 area and functions.
- 958 Reference aquatic resources are a set of aquatic resources that represent the full range of variability
959 exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic
960 disturbances.
- 961 Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site
962 with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation
963 results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.
- 964 Restoration means the manipulation of the physical, chemical, or biological characteristics of a site
965 with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the
966 purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-
967 establishment and rehabilitation.

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

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

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

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

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

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

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

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

985 § 230.93 General compensatory mitigation requirements.

986 (a) General Considerations.

987 (1) The fundamental objective of compensatory mitigation is to offset environmental losses
988 resulting from unavoidable impacts to waters of the state authorized by Orders. The permitting
989 authority must determine the compensatory mitigation to be required in an Order, based on
990 what would be environmentally preferable. In making this determination, the permitting authority
991 must assess the likelihood for ecological success and sustainability, and the location of the
992 compensation site relative to the impact site and their significance within the watershed, and the
993 costs of the compensatory mitigation project. In many cases, the environmentally preferable
994 compensatory mitigation may be provided through mitigation banks or in-lieu fee programs
995 because they usually involve consolidating compensatory mitigation projects where ecologically
996 appropriate, consolidating resources, providing financial planning and scientific expertise (which
997 often is not practical for permittee-responsible compensatory mitigation projects), reducing
998 temporal losses of functions, and reducing uncertainty over project success. Compensatory
999 mitigation requirements must be commensurate with the amount and type of impact that is
1000 associated with a particular Order. Applicants are responsible for proposing an appropriate
1001 compensatory mitigation option to offset unavoidable impacts.

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1002 (2) Compensatory mitigation may be performed using methods ~~or of~~ restoration, enhancement,
1003 establishment, and in certain circumstances preservation. Restoration should generally be the
1004 first option considered because the likelihood of success is greater and the impacts to
1005 potentially ecologically important uplands are reduced compared to establishment, and the
1006 potential gains in terms of aquatic resource functions are greater, compared to enhancement
1007 and preservation.

1008 (3) Compensatory mitigation projects may be sited on public or private lands. Credits for
1009 compensatory mitigation projects on public land must be based solely on aquatic resource
1010 functions provided by the compensatory mitigation project, over and above those provided by
1011 public programs already planned or in place. All compensatory mitigation projects must comply
1012 with the standards in section IV of these Procedures, if they are to be used to provide
1013 compensatory mitigation for activities authorized by Orders, regardless of whether they are sited
1014 on public or private lands and whether the sponsor is a governmental or private entity.

1015 (b) Type and location of compensatory mitigation.²⁷

1016 (1) In general, the required compensatory mitigation should be located within the same
1017 watershed as the impact site, and should be located where it is most likely to successfully
1018 replace lost functions and services, taking into account such watershed scale features as
1019 aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the
1020 availability of water rights), trends in land use, ecological benefits, and compatibility with
1021 adjacent land uses. When compensating for impacts to marine resources, the location of the
1022 compensatory mitigation site should be chosen to replace lost functions and services within the
1023 same marine ecological system (e.g., reef complex, littoral drift cell). Compensation for impacts
1024 to aquatic resources in coastal watersheds (watersheds that include a tidal water body) should
1025 also be located in a coastal watershed where practicable. Compensatory mitigation projects
1026 should not be located where they will increase risks to aviation by attracting wildlife to areas
1027 where aircraft-wildlife strikes may occur (e.g., near airports).

1028 (2) Mitigation bank credits. When permitted impacts are located within the service area of an
1029 approved mitigation bank, and the bank has the appropriate number and resource type of
1030 credits available, the permittee's compensatory mitigation requirements may be met by securing
1031 those credits from the sponsor. Since an approved instrument (including an approved mitigation
1032 plan and appropriate real estate and financial assurances) for a mitigation bank is required to be
1033 in place before its credits can begin to be used to compensate for authorized impacts, use of a
1034 mitigation bank can help reduce risk and uncertainty, as well as temporal loss of resource
1035 functions and services. Mitigation bank credits are not released for debiting until specific
1036 milestones associated with the mitigation bank site's protection and development are achieved,
1037 thus use of mitigation bank credits can also help reduce risk that mitigation will not be fully
1038 successful. Mitigation banks typically involve larger, more ecologically valuable parcels, and
1039 more rigorous scientific and technical analysis, planning and implementation than permittee-

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1040 responsible mitigation. Also, development of a mitigation bank requires site identification in
1041 advance, project-specific planning, and significant investment of financial resources that is often
1042 not practicable for many in-lieu fee programs. For these reasons, the permitting authority
1043 should give preference to the use of mitigation bank credits when these considerations are
1044 applicable. However, these same considerations may also be used to override this preference,
1045 where appropriate, as, for example, where an in-lieu fee program has released credits available
1046 from a specific approved in-lieu fee project, or a permittee-responsible project will restore an
1047 outstanding resource based on rigorous scientific and technical analysis.

1048 (3) In-lieu fee program credits. Where permitted impacts are located within the service area of
1049 an approved in-lieu fee program, and the sponsor has the appropriate number and resource
1050 type of credits available, the permittee's compensatory mitigation requirements may be met by
1051 securing those credits from the sponsor. Where permitted impacts are not located in the service
1052 area of an approved mitigation bank, or the approved mitigation bank does not have the
1053 appropriate number and resource type of credits available to offset those impacts, in-lieu fee
1054 mitigation, if available, is generally preferable to permittee-responsible mitigation. In-lieu fee
1055 projects typically involve larger, more ecologically valuable parcels, and more rigorous scientific
1056 and technical analysis, planning and implementation than permittee-responsible mitigation.
1057 They also devote significant resources to identifying and addressing high-priority resource
1058 needs on a watershed scale, as reflected in their compensation planning framework. For these
1059 reasons, the permitting authority should give preference to in-lieu fee program credits over
1060 permittee-responsible mitigation, where these considerations are applicable. However, as with
1061 the preference for mitigation bank credits, these same considerations may be used to override
1062 this preference where appropriate. Additionally, in cases where permittee-responsible
1063 mitigation is likely to successfully meet performance standards before advance credits secured
1064 from an in-lieu fee program are fulfilled, the permitting authority should also give consideration
1065 to this factor in deciding between in-lieu fee mitigation and permittee-responsible mitigation.

1066 (4) Permittee-responsible mitigation under a watershed approach. Where permitted impacts
1067 are not in the service area of an approved mitigation bank or in-lieu fee program that has the
1068 appropriate number and resource type of credits available, permittee-responsible mitigation is
1069 the only option. Where practicable and likely to be successful and sustainable, the resource
1070 type and location for the required permittee-responsible compensatory mitigation should be
1071 determined using the principles of a watershed approach as outlined in paragraph (c) of this
1072 section.

1073 (5) Permittee-responsible mitigation through on-site and in-kind mitigation. In cases where a
1074 watershed approach is not practicable, the permitting authority should consider opportunities to
1075 offset anticipated aquatic resource impacts by requiring on-site and in-kind compensatory
1076 mitigation. The permitting authority must also consider the practicability of on-site
1077 compensatory mitigation and its compatibility with the proposed project.

1078 (6) Permittee-responsible mitigation through off-site and/or out-of-kind mitigation. If, after
1079 considering opportunities for on-site, in-kind compensatory mitigation as provided in paragraph
1080 (b)(5) of this section, the permitting authority determines that these compensatory mitigation

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1081 opportunities are not practicable, are unlikely to compensate for the permitted impacts, or will be
1082 incompatible with the proposed project, and an alternative, practicable off-site and/or out-of-kind
1083 mitigation opportunity is identified that has a greater likelihood of offsetting the permitted
1084 impacts or is environmentally preferable to on-site or in-kind mitigation, the permitting authority
1085 should require that this alternative compensatory mitigation be provided.

1086 (c) Watershed approach to compensatory mitigation.²⁸

1087 (1) The permitting authority must use a watershed approach to establish compensatory
1088 mitigation requirements in Orders as described in the main text of the Procedures. Where a
1089 watershed plan is available, the permitting authority will determine whether the plan meets the
1090 definition of watershed plan in the Procedures and therefore is appropriate for use in the
1091 watershed approach for compensatory mitigation. In cases where the permitting authority
1092 determines that an appropriate watershed plan is available, the watershed approach should be
1093 based on that plan. Where no such plan is available, the watershed approach should be based
1094 on information provided by the project sponsor or available from other sources. The ultimate
1095 goal of a watershed approach is to maintain and improve the abundance, diversity, and
1096 condition of aquatic resources within watersheds through strategic selection of compensatory
1097 mitigation sites.

1098 (2) Considerations.

1099 (i) A watershed approach to compensatory mitigation considers the importance of condition,
1100 landscape position and resource type of compensatory mitigation projects for the
1101 sustainability of aquatic resource functions within the watershed. Such an approach
1102 considers how the condition, types, and locations of compensatory mitigation projects will
1103 provide the desired aquatic resource functions, and will continue to function over time in a
1104 changing landscape. It also considers the habitat requirements of important species, habitat
1105 loss or conversion trends, sources of watershed impairment, and current development
1106 trends, as well as the requirements of other regulatory and non-regulatory programs that
1107 affect the watershed, such as storm water management or habitat conservation programs. It
1108 includes the protection and maintenance of terrestrial resources, such as non-wetland
1109 riparian areas and uplands, when those resources contribute to or improve the overall
1110 ecological functioning of aquatic resources in the watershed. Compensatory mitigation
1111 requirements determined through the watershed approach should not focus exclusively on
1112 specific functions (e.g., water quality or habitat for certain species), but should provide, where
1113 practicable, the suite of functions typically provided by the affected aquatic resource.

1114 (ii) Locational factors (e.g., hydrology, surrounding land use) are important to the success of
1115 compensatory mitigation for impacted habitat functions and may lead to siting of such
1116 mitigation away from the project area. However, consideration should also be given to

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1117 functions and services (e.g., water quality, flood control, shoreline protection) that will likely
1118 need to be addressed at or near the areas impacted by the permitted impacts.²⁹

1119 (iii) A watershed approach may include on-site compensatory mitigation, off-site
1120 compensatory mitigation (including mitigation banks or in-lieu fee programs), or a
1121 combination of on-site and off-site compensatory mitigation.

1122 (iv) A watershed approach to compensatory mitigation should include, to the extent
1123 practicable, inventories of historic and existing aquatic resources, including identification of
1124 degraded aquatic resources, and identification of immediate and long-term aquatic resource
1125 needs within watersheds that can be met through permittee-responsible mitigation projects,
1126 mitigation banks, or in-lieu fee programs. Planning efforts should identify and prioritize
1127 aquatic resource restoration, establishment, and enhancement activities, and preservation of
1128 existing aquatic resources that are important for maintaining or improving ecological functions
1129 of the watershed. The identification and prioritization of resource needs should be as specific
1130 as possible, to enhance the usefulness of the approach in determining compensatory
1131 mitigation requirements.

1132 (v) A watershed approach is not appropriate in areas where watershed boundaries do not
1133 exist, such as marine areas. In such cases, an appropriate spatial scale should be used to
1134 replace lost functions and services within the same ecological system (e.g., reef complex,
1135 littoral drift cell).

1136 (3) Information Needs.

1137 (i) In the absence of a watershed plan determined by the permitting authority under
1138 paragraph (c)(1) of this section to be appropriate for use in the watershed approach, the
1139 permitting authority will use a watershed approach based on analysis of information
1140 regarding watershed conditions (as identified in the watershed profile) and needs, including
1141 potential sites for aquatic resource restoration activities and priorities for aquatic resource
1142 restoration and preservation. Such information includes: Current trends in habitat loss or
1143 conversion; cumulative impacts of past development activities, current development trends,
1144 the presence and needs of sensitive species; site conditions that favor or hinder the success
1145 of compensatory mitigation projects; and chronic environmental problems such as flooding or
1146 poor water quality.

1147 (ii) This information may be available from sources such as wetland maps; soil surveys; U.S.
1148 Geological Survey topographic and hydrologic maps; aerial photographs; information on rare,
1149 endangered and threatened species and critical habitat; local ecological reports or studies;
1150 and other information sources that could be used to identify locations for suitable
1151 compensatory mitigation projects in the watershed.

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1152 (iii) The level of information and analysis needed to support a watershed approach must be
1153 commensurate with the scope and scale of the proposed impacts requiring an Order, as well
1154 as the functions lost as a result of those impacts.

1155 (4) Watershed Scale. The size of watershed addressed using a watershed approach should not
1156 be larger than is appropriate to ensure that the aquatic resources provided through
1157 compensation activities will effectively compensate for adverse environmental impacts resulting
1158 from activities authorized by Orders. The permitting authority should consider relevant
1159 environmental factors and appropriate locally-developed standards and criteria when
1160 determining the appropriate watershed scale in guiding compensation activities.

1161 (d) Site selection.³⁰

1162 (1) The compensatory mitigation project site must be ecologically suitable for providing the
1163 desired aquatic resource functions. In determining the ecological suitability of the compensatory
1164 mitigation project site, the permitting authority must consider, to the extent practicable, the
1165 following factors:

1166 (i) Hydrological conditions, soil characteristics, and other physical and chemical
1167 characteristics;

1168 (ii) Watershed-scale features, such as aquatic habitat diversity, habitat connectivity, and
1169 other landscape scale functions;

1170 (iii) The size and location of the compensatory mitigation site relative to hydrologic sources
1171 (including the availability of water rights) and other ecological features;

1172 (iv) Compatibility with adjacent land uses and watershed management plans;

1173 (v) Reasonably foreseeable effects the compensatory mitigation project will have on
1174 ecologically important aquatic or terrestrial resources (e.g., shallow sub-tidal habitat, mature
1175 forests), cultural sites, or habitat for federally- or state-listed threatened and endangered
1176 species; and

1177 (vi) Other relevant factors including, but not limited to, development trends, anticipated land
1178 use changes, habitat status and trends, the relative locations of the impact and mitigation
1179 sites in the stream network, local or regional goals for the restoration or protection of
1180 particular habitat types or functions (e.g., re-establishment of habitat corridors or habitat for
1181 species of concern), water quality goals, floodplain management goals, and the relative
1182 potential for chemical contamination of the aquatic resources.

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1183 (2) Permitting authorities may require on-site, off-site, or a combination of on-site and off-site
1184 compensatory mitigation to replace permitted losses of aquatic resource functions and services.

1185 (3) Applicants should propose compensation sites adjacent to existing aquatic resources or
1186 where aquatic resources previously existed.

1187 (e) Mitigation type.

1188 (1) In general, in-kind mitigation is preferable to out-of-kind mitigation because it is most likely to
1189 compensate for the functions and services lost at the impact site. For example, tidal wetland
1190 compensatory mitigation projects are most likely to compensate for unavoidable impacts to tidal
1191 wetlands, while perennial stream compensatory mitigation projects are most likely to
1192 compensate for unavoidable impacts to perennial streams. Thus, except as provided in
1193 paragraph (e)(2) of this section, the required compensatory mitigation shall be of a similar type
1194 to the affected aquatic resource.

1195 (2) If the permitting authority determines, using the watershed approach in accordance with
1196 paragraph (c) of this section that out-of-kind compensatory mitigation will serve the aquatic
1197 resource needs of the watershed, the permitting authority may authorize the use of such out-of-
1198 kind compensatory mitigation. The basis for authorization of out-of-kind compensatory
1199 mitigation must be documented in the administrative record for the Order action.

1200 (3) For difficult-to-replace resources (e.g., bogs, fens, springs, streams, vegetated seasonal
1201 wetlands, slope and seep wetlands, vernal pools, and wet meadows) if further avoidance and
1202 minimization is not practicable, the required compensation should be provided, if practicable,
1203 through in-kind rehabilitation, enhancement, or preservation since there is greater certainty that
1204 these methods of compensation will successfully offset permitted impacts.

1205 (f) Amount of compensatory mitigation.

1206 (1) If the permitting authority determines that compensatory mitigation is necessary to offset
1207 unavoidable impacts to aquatic resources, the amount of required compensatory mitigation
1208 must be, to the extent practicable, sufficient to replace lost aquatic resource functions. In cases
1209 where appropriate functional or condition assessment methods or other suitable metrics are
1210 available, these methods should be used where practicable to determine how much
1211 compensatory mitigation is required. ~~If a functional or condition assessment or other suitable
1212 metric is not used, a minimum one-to-one acreage or linear foot compensation ratio must be
1213 used.~~

1214 (2) The permitting authority must require a mitigation ratio greater than one-to-one where
1215 necessary to account for the method of compensatory mitigation (e.g., preservation), the
1216 likelihood of success, differences between the functions lost at the impact site and the functions
1217 expected to be produced by the compensatory mitigation project, temporal losses of aquatic
1218 resource functions, the difficulty of restoring or establishing the desired aquatic resource type
1219 and functions, and/or the distance between the affected aquatic resource and the compensation

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1220 site. The rationale for the required replacement ratio must be documented in the administrative
1221 record for the Order action.

1222 (3) If an in-lieu fee program will be used to provide the required compensatory mitigation, and
1223 the appropriate number and resource type of released credits are not available, the permitting
1224 authority must require sufficient compensation to account for the risk and uncertainty associated
1225 with in-lieu fee projects that have not been implemented before the permitted impacts have
1226 occurred.

1227 (g) Use of mitigation banks and in-lieu fee programs. Mitigation banks and in-lieu fee programs
1228 may be used to compensate for impacts to aquatic resources authorized by general Orders and
1229 individual Orders in accordance with the preference hierarchy in paragraph (b) of this section.
1230 Mitigation banks and in-lieu fee programs may also be used to satisfy requirements arising out of an
1231 enforcement action, such as supplemental environmental projects.

1232 (h) Preservation.³⁴

1233 (1) Preservation may be used to provide compensatory mitigation for activities authorized by
1234 Orders when all the following criteria are met:

1235 (i) The resources to be preserved provide important physical, chemical, or biological
1236 functions for the watershed;

1237 (ii) The resources to be preserved contribute significantly to the ecological sustainability of
1238 the watershed. In determining the contribution of those resources to the ecological
1239 sustainability of the watershed, the permitting authority must use appropriate quantitative
1240 assessment tools where available;

1241 (iii) Preservation is determined by the permitting authority to be appropriate and practicable;

1242 (iv) The resources are under threat of destruction or adverse modifications; and

1243 (v) The preserved site will be permanently protected through an appropriate real estate or
1244 other legal instrument (e.g., easement, title transfer to state resource agency or land trust).

1245 (2) Where preservation is used to provide compensatory mitigation, to the extent appropriate
1246 and practicable the preservation shall be done in conjunction with aquatic resource restoration,
1247 establishment, and/or enhancement activities. This requirement may be waived by the
1248 permitting authority where preservation has been identified as a high priority using a watershed
1249 approach described in paragraph (c) of this section, but compensation ratios shall be higher.

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1250 (i) Buffers. The permitting authority may require the restoration, establishment,
1251 enhancement, and preservation, as well as the maintenance, of riparian areas and/or buffers
1252 around aquatic resources where necessary to ensure the long-term viability of those
1253 resources. Buffers may also provide habitat or corridors necessary for the ecological
1254 functioning of aquatic resources. If buffers are required by the permitting authority as part of
1255 the compensatory mitigation project, compensatory mitigation credit will be provided for those
1256 buffers, as provided in section IV B.5 (c).

1257 (j) Relationship to other federal, tribal, state, and local programs.

1258 (1) Compensatory mitigation projects for Orders may also be used to satisfy the environmental
1259 requirements of other programs, such as tribal, state, or local wetlands regulatory programs,
1260 other federal programs such as the Surface Mining Control and Reclamation Act, Corps civil
1261 works projects, and Department of Defense military construction projects, consistent with the
1262 terms and requirements of these programs and subject to the following considerations:

1263 (i) The compensatory mitigation project must include appropriate compensation required by
1264 the Order for unavoidable impacts to aquatic resources authorized by that Order.

1265 (ii) Under no circumstances may the same credits be used to provide mitigation for more than
1266 one permitted activity. However, where appropriate, compensatory mitigation projects,
1267 including mitigation banks and in-lieu fee projects, may be designed to holistically address
1268 requirements under multiple programs and authorities for the same activity.

1269 (2) Except for projects undertaken by federal agencies, or where federal funding is specifically
1270 authorized to provide compensatory mitigation, federally-funded aquatic resource restoration or
1271 conservation projects undertaken for purposes other than compensatory mitigation, such as the
1272 Wetlands Reserve Program, Conservation Reserve Program, and Partners for Wildlife Program
1273 activities, cannot be used for the purpose of generating compensatory mitigation credits for
1274 activities authorized by Orders. However, compensatory mitigation credits may be generated by
1275 activities undertaken in conjunction with, but supplemental to, such programs in order to
1276 maximize the overall ecological benefits of the restoration or conservation project.

1277 (3) Compensatory mitigation projects may also be used to provide compensatory mitigation
1278 under the federal and state Endangered Species Act or for Natural Community Conservation
1279 Plans and Habitat Conservation Plans, as long as they comply with the requirements of
1280 paragraph (j)(1) of this section.

1281 (k) Order conditions.

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1282 (1) The compensatory mitigation requirements for an Order, including the amount and type of
1283 compensatory mitigation, must be clearly stated in the special conditions of the individual Order
1284 or authorization to use the general Order. The special conditions must be enforceable.³²

1285 (2) For an Order that requires permittee-responsible mitigation, the special conditions must:

1286 (i) Identify the party responsible for providing the compensatory mitigation;

1287 (ii) Incorporate, by reference, the final or draft mitigation plan approved by the permitting
1288 authority;

1289 (iii) State the objectives, performance standards, and monitoring required for the
1290 compensatory mitigation project, unless they are provided in the approved final mitigation
1291 plan; and

1292 (iv) Describe any required financial assurances or long-term management provisions for the
1293 compensatory mitigation project, unless they are specified in the approved final mitigation
1294 plan.

1295 (4) If a mitigation bank or in-lieu fee program is used to provide the required compensatory
1296 mitigation, the special conditions must indicate whether a mitigation bank or in-lieu fee program
1297 will be used, and specify the number and resource type of credits the permittee is required to
1298 secure. In the case of an individual Order, the special condition must also identify the specific
1299 mitigation bank or in-lieu fee program that will be used. For authorizations to use a general
1300 Order, the special conditions may either identify the specific mitigation bank or in-lieu fee
1301 program, or state that the specific mitigation bank or in-lieu fee program used to provide the
1302 required compensatory mitigation must be approved by the permitting authority before the
1303 credits are secured.

1304 (l) Party responsible for compensatory mitigation.

1305 (1) For permittee-responsible mitigation, the special conditions of the Order must clearly
1306 indicate the party or parties responsible for the implementation, performance, and long-term
1307 management of the compensatory mitigation project.

1308 (3) If use of a mitigation bank or in-lieu fee program is approved by the permitting authority to
1309 provide part or all of the required compensatory mitigation for an Order, the permittee retains
1310 responsibility for providing the compensatory mitigation until the appropriate number and
1311 resource type of credits have been secured from a sponsor and the permitting authority has
1312 received documentation that confirms that the sponsor has accepted the responsibility for
1313 providing the required compensatory mitigation. This documentation may consist of a letter or

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1314 form signed by the sponsor, with the Order number and a statement indicating the number and
1315 resource type of credits that have been secured from the sponsor. Copies of this
1316 documentation will be retained in the administrative records for both the Order and the
1317 instrument. If the sponsor fails to provide the required compensatory mitigation, the permitting
1318 authority may pursue measures against the sponsor to ensure compliance.³³

1319 (m) Timing. Implementation of the compensatory mitigation project shall be, to the maximum extent
1320 practicable, in advance of or concurrent with the activity causing the authorized impacts. The
1321 permitting authority shall require, to the extent appropriate and practicable, additional compensatory
1322 mitigation to offset temporal losses of aquatic functions that will result from the permitted activity.

1323 (n) Financial assurances.

1324 (1) The permitting authority shall require sufficient financial assurances to ensure a high level of
1325 confidence that the compensatory mitigation project will be successfully completed, in
1326 accordance with applicable performance standards. In cases where an alternate mechanism is
1327 available to ensure a high level of confidence that the compensatory mitigation will be provided
1328 and maintained (e.g., a formal, documented commitment from a government agency or public
1329 authority) the permitting authority may determine that financial assurances are not necessary for
1330 that compensatory mitigation project.

1331 (2) The amount of the required financial assurances must be determined by the permitting
1332 authority, in consultation with the project sponsor, and must be based on the size and
1333 complexity of the compensatory mitigation project, the degree of completion of the project at the
1334 time of project approval, the likelihood of success, the past performance of the project sponsor,
1335 and any other factors the permitting authority deems appropriate. Financial assurances may be
1336 in the form of performance bonds, escrow accounts, casualty insurance, letters of credit,
1337 legislative appropriations for government sponsored projects, or other appropriate instruments,
1338 subject to the approval of the permitting authority. The rationale for determining the amount of
1339 the required financial assurances must be documented in the administrative record for either the
1340 Order or the instrument. In determining the assurance amount, the permitting authority shall
1341 consider the cost of providing replacement mitigation, including costs for land acquisition,
1342 planning and engineering, legal fees, mobilization, construction, and monitoring.

1343 (3) If financial assurances are required, the Order must include a special condition requiring the
1344 financial assurances to be in place prior to commencing the permitted activity.³⁴

1345 (4) Financial assurances shall be phased out once the compensatory mitigation project has
1346 been determined by the permitting authority to be successful in accordance with its performance

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1347 standards. The Order or instrument must clearly specify the conditions under which the
1348 financial assurances are to be released to the permittee, sponsor, and/or other financial
1349 assurance provider, including, as appropriate, linkage to achievement of performance
1350 standards, adaptive management, or compliance with special conditions.

1351 (5) A financial assurance must be in a form that ensures that the permitting authority will receive
1352 notification at least 120 days in advance of any termination or revocation. For third-party
1353 assurance providers, this may take the form of a contractual requirement for the assurance
1354 provider to notify the permitting authority at least 120 days before the assurance is revoked or
1355 terminated.

1356 (6) Financial assurances shall be payable at the direction of the permitting authority to his
1357 designee or to a standby trust agreement. When a standby trust is used (e.g., with performance
1358 bonds or letters of credit) all amounts paid by the financial assurance provider shall be
1359 deposited directly into the standby trust fund for distribution by the trustee in accordance with
1360 the permitting authority's instructions.

1361 (o) Compliance with applicable law. The compensatory mitigation project must comply with all
1362 applicable federal, state, and local laws. The Order, mitigation banking instrument, or in-lieu fee
1363 program instrument must not require participation by the permitting authority in project
1364 management, including receipt or management of financial assurances or long-term financing
1365 mechanisms, except as determined by the permitting authority to be consistent with its statutory
1366 authority, mission, and priorities.

1367 § 230.94 Planning and documentation.

1368 (a) Pre-application consultations. Potential applicants for Orders are encouraged to participate in
1369 pre-application meetings with the permitting authority and appropriate agencies to discuss potential
1370 mitigation requirements and information needs.

1371 (c) Mitigation plan.

1372 (1) Preparation and Approval.

1373 (i) For individual Orders, the permittee must prepare a draft mitigation plan and submit it to
1374 the permitting authority for review prior to ~~certification~~ issuing the Order. After addressing any
1375 comments provided by the permitting authority, the permittee must prepare a final mitigation
1376 plan, which must be approved by the permitting authority prior to commencing work in waters
1377 of the state. The approved final mitigation plan must be incorporated into the individual Order
1378 either as an attachment or by reference. The final mitigation plan must include the items
1379 described in paragraphs (c)(2) through (c)(14) of this section, but the level of detail of the
1380 mitigation plan should be commensurate with the scale and scope of the impacts. As an
1381 alternative, the permitting authority may determine that it would be more appropriate to
1382 address any of the items described in paragraphs (c)(2) through (c)(14) of this section as
1383 Order conditions, instead of components of a compensatory mitigation plan. For permittees
1384 who intend to fulfill their compensatory mitigation obligations by securing credits from
1385 approved mitigation banks or in-lieu fee programs, their mitigation plans need include only

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1386 the items described in paragraphs (c)(5) and (c)(6) of this section, and the name of the
1387 specific mitigation bank or in-lieu fee program to be used.³⁵

~~(ii) For general Orders, if compensatory mitigation is required, the permitting authority may approve a conceptual or detailed compensatory mitigation plan to meet required time frames for general Order enrollments, but a final mitigation plan incorporating the elements in paragraphs (c)(2) through (c)(14) of this section, at a level of detail commensurate with the scale and scope of the impacts, must be approved by the permitting authority before the permittee commences work in waters of the state. As an alternative, the permitting authority may determine that it would be more appropriate to address any of the items described in paragraphs (c)(2) through (c)(14) of this section as Order conditions, instead of components of a compensatory mitigation plan. For permittees who intend to fulfill their compensatory mitigation obligations by securing credits from approved mitigation banks or in-lieu fee programs, their mitigation plans need include only the items described in paragraphs (c)(5) and (c)(6) of this section, and either the name of the specific mitigation bank or in-lieu fee program to be used or a statement indicating that a mitigation bank or in-lieu fee program will be used (contingent upon approval by the permitting authority).~~

1402 (2) Objectives. A description of the resource type(s) and amount(s) that will be provided, the
1403 method of compensation (i.e., restoration, establishment, enhancement, and/or preservation),
1404 and the manner in which the resource functions of the compensatory mitigation project will
1405 address the needs of the watershed, ecoregion, physiographic province, or other geographic
1406 area of interest.

1407 (3) Site selection. A description of the factors considered during the site selection process.
1408 This should include consideration of watershed needs, on-site alternatives where applicable,
1409 and the practicability of accomplishing ecologically self-sustaining aquatic resource restoration,
1410 establishment, enhancement, and/or preservation at the compensatory mitigation project site.
1411 (See [§ 230.93\(d\)](#).)

1412 (4) Site protection instrument. A description of the legal arrangements and instrument, including
1413 site ownership, that will be used to ensure the long-term protection of the compensatory
1414 mitigation project site (see [§ 230.97\(a\)](#)).³⁶

1415 (5) Baseline information. A description of the ecological characteristics of the proposed
1416 compensatory mitigation project site and, in the case of an application for an Order, the impact
1417 site. This may include descriptions of historic and existing plant communities, historic and
1418 existing hydrology, soil conditions, a map showing the locations of the impact and mitigation
1419 site(s) or the geographic coordinates for those site(s), and other site characteristics appropriate
1420 to the type of resource proposed as compensation. The baseline information should also
1421 include a delineation of waters of the state on the proposed compensatory mitigation project
1422 site. A prospective permittee planning to secure credits from an approved mitigation bank or in-

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1423 lieu fee program only needs to provide baseline information about the impact site, not the
1424 mitigation bank or in-lieu fee project site.

1425 (6) Determination of credits. A description of the number of credits to be provided, including a
1426 brief explanation of the rationale for this determination. (See [§ 230.93\(f\)](#).)

1427 (i) For permittee-responsible mitigation, this should include an explanation of how the
1428 compensatory mitigation project will provide the required compensation for unavoidable
1429 impacts to aquatic resources resulting from the permitted activity.

1430 (ii) For permittees intending to secure credits from an approved mitigation bank or in-lieu fee
1431 program, it should include the number and resource type of credits to be secured and how
1432 these were determined.

1433 (7) Mitigation work plan. Detailed written specifications and work descriptions for the
1434 compensatory mitigation project, including, but not limited to, the geographic boundaries of the
1435 project; construction methods, timing, and sequence; source(s) of water, including connections
1436 to existing waters and uplands; methods for establishing the desired plant community; plans to
1437 control invasive plant species; the proposed grading plan, including elevations and slopes of the
1438 substrate; soil management; and erosion control measures. For stream compensatory
1439 mitigation projects, the mitigation work plan may also include other relevant information, such as
1440 planform geometry, channel form (e.g., typical channel cross-sections), watershed size, design
1441 discharge, and riparian area plantings.

1442 (8) Maintenance plan. A description and schedule of maintenance requirements to ensure the
1443 continued viability of the resource once initial construction is completed.

1444 (9) Performance standards. Ecologically-based standards that will be used to determine
1445 whether the compensatory mitigation project is achieving its objectives. (See [§ 230.95](#).)

1446 (10) Monitoring requirements. A description of parameters to be monitored in order to
1447 determine if the compensatory mitigation project is on track to meet performance standards and
1448 if adaptive management is needed. A schedule for monitoring and reporting on monitoring
1449 results to the permitting authority must be included. (See [§ 230.96](#).)³⁷

1450 (11) Long-term management plan. A description of how the compensatory mitigation project will
1451 be managed after performance standards have been achieved to ensure the long-term
1452 sustainability of the resource, including long-term financing mechanisms and the party
1453 responsible for long-term management. (See [§ 230.97\(d\)](#).)

1454 (12) Adaptive management plan. A management strategy to address unforeseen changes in
1455 site conditions or other components of the compensatory mitigation project, including the party
1456 or parties responsible for implementing adaptive management measures. The adaptive
1457 management plan will guide decisions for revising compensatory mitigation plans and
1458 implementing measures to address both foreseeable and unforeseen circumstances that
1459 adversely affect compensatory mitigation success. (See [§ 230.97\(c\)](#).)

³⁷ Note that the numbering scheme of the Corps' 404(b)(1) Guidelines has been retained for the benefit of practitioners who are familiar with the Corps' 404(b)(1) Guidelines.

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1460 (13) Financial assurances. A description of financial assurances that will be provided and how
1461 they are sufficient to ensure a high level of confidence that the compensatory mitigation project
1462 will be successfully completed, in accordance with its performance standards (see [§ 230.93\(n\)](#)).

1463 (14) Other information. The permitting authority may require additional information as
1464 necessary to determine the appropriateness, feasibility, and practicability of the compensatory
1465 mitigation project.

1466 § 230.95 Ecological performance standards.

1467 (a) The approved mitigation plan must contain performance standards that will be used to assess
1468 whether the project is achieving its objectives. Performance standards should relate to the
1469 objectives of the compensatory mitigation project, so that the project can be objectively evaluated to
1470 determine if it is developing into the desired resource type, providing the expected condition or
1471 functions, and attaining any other applicable metrics (e.g., acres).

1472 (b) Performance standards must be based on attributes that are objective and verifiable. Ecological
1473 performance standards must be based on the best available science that can be measured or
1474 assessed in a practicable manner. Performance standards may be based on variables or
1475 measures of functional capacity or condition as described in assessment methodologies,
1476 measurements of hydrology or other aquatic resource characteristics, and/or comparisons to
1477 reference aquatic resources of similar type and landscape position. The use of reference aquatic
1478 resources to establish performance standards will help ensure that those performance standards
1479 are reasonably achievable, by reflecting the range of variability exhibited by the regional class of
1480 aquatic resources as a result of natural processes and anthropogenic disturbances. Performance
1481 standards based on measurements of hydrology should take into consideration the hydrologic
1482 variability exhibited by reference aquatic resources, especially wetlands. Where practicable,
1483 performance standards should take into account the expected stages of the aquatic resource
1484 development process, in order to allow early identification of potential problems and appropriate
1485 adaptive management.

1486 § 230.96 Monitoring.³⁸

1487 (a) General.

1488 (1) Monitoring the compensatory mitigation project site is necessary to determine if the project is
1489 meeting its performance standards, and to determine if measures are necessary to ensure that
1490 the compensatory mitigation project is accomplishing its objectives. The submission of
1491 monitoring reports to assess the development and condition of the compensatory mitigation
1492 project is required, but the content and level of detail for those monitoring reports must be
1493 commensurate with the scale and scope of the compensatory mitigation project, as well as the
1494 compensatory mitigation project type. The mitigation plan must address the monitoring
1495 requirements for the compensatory mitigation project, including the parameters to be monitored,
1496 the length of the monitoring period, the party responsible for conducting the monitoring, the
1497 frequency for submitting monitoring reports to the permitting authority, and the party responsible
1498 for submitting those monitoring reports to the permitting authority.

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1499 (2) The permitting authority may conduct site inspections on a regular basis (e.g., annually)
1500 during the monitoring period to evaluate mitigation site performance.

1501 (b) Monitoring period. The mitigation plan must provide for a monitoring period that is sufficient to
1502 demonstrate that the compensatory mitigation project has met performance standards, but not less
1503 than five years. A longer monitoring period must be required for aquatic resources with slow
1504 development rates (e.g., forested wetlands, bogs). Following project implementation, the permitting
1505 authority may reduce or waive the remaining monitoring requirements upon a determination that the
1506 compensatory mitigation project has achieved its performance standards. Conversely the
1507 permitting authority may extend the original monitoring period upon a determination that
1508 performance standards have not been met or the compensatory mitigation project is not on track to
1509 meet them. The permitting authority may also revise monitoring requirements when remediation
1510 and/or adaptive management is required.

1511 (c) Monitoring reports.

1512 (1) The permitting authority must determine the information to be included in monitoring reports.
1513 This information must be sufficient for the permitting authority to determine how the
1514 compensatory mitigation project is progressing towards meeting its performance standards, and
1515 may include plans (such as as-built plans), maps, and photographs to illustrate site conditions.
1516 Monitoring reports may also include the results of functional, condition, or other assessments
1517 used to provide quantitative or qualitative measures of the functions provided by the
1518 compensatory mitigation project site.

1519 (2) The permittee or sponsor is responsible for submitting monitoring reports in accordance with
1520 the special conditions of the Order or the terms of the instrument. Failure to submit monitoring
1521 reports in a timely manner may result in compliance action by the permitting authority.

1522 (3) Monitoring reports must be provided by the permitting authority to interested federal, tribal,
1523 state, and local resource agencies, and the public, upon request.

1524 § 230.97 Management.³⁹

1525 (a) Site protection.

1526 (1) The aquatic habitats, riparian areas, buffers, and uplands that comprise the overall
1527 compensatory mitigation project must be provided long-term protection through real estate
1528 instruments or other available mechanisms, as appropriate. Long-term protection may be
1529 provided through real estate instruments such as conservation easements held by entities such
1530 as federal, tribal, state, or local resource agencies, non-profit conservation organizations, or
1531 private land managers; the transfer of title to such entities; or by restrictive covenants. For
1532 government property, long-term protection may be provided through state or federal facility
1533 management plans or integrated natural resources management plans. When approving a
1534 method for long-term protection of non-government property other than transfer of title, the
1535 permitting authority shall consider relevant legal constraints on the use of conservation
1536 easements and/or restrictive covenants in determining whether such mechanisms provide
1537 sufficient site protection. To provide sufficient site protection, a conservation easement or

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1538 restrictive covenant should, where practicable, establish in an appropriate third party (e.g.,
1539 governmental or non-profit resource management agency) the right to enforce site protections
1540 and provide the third party the resources necessary to monitor and enforce these site
1541 protections.

1542 (2) The real estate instrument, management plan, or other mechanism providing long-term
1543 protection of the compensatory mitigation site must, to the extent appropriate and practicable,
1544 prohibit incompatible uses (e.g., clear cutting or mineral extraction) that might otherwise
1545 jeopardize the objectives of the compensatory mitigation project. Where appropriate, multiple
1546 instruments recognizing compatible uses (e.g., fishing or grazing rights) may be used.

1547 (3) The real estate instrument, management plan, or other long-term protection mechanism
1548 must contain a provision requiring 60-day advance notification to the permitting authority before
1549 any action is taken to void or modify the instrument, management plan, or long-term protection
1550 mechanism, including transfer of title to, or establishment of any other legal claims over, the
1551 compensatory mitigation site.

1552 (4) For compensatory mitigation projects on public lands, where state or Federal facility
1553 management plans or integrated natural resources management plans are used to provide long-
1554 term protection, and changes in statute, regulation, or agency needs or mission results in an
1555 incompatible use on public lands originally set aside for compensatory mitigation, the public
1556 agency authorizing the incompatible use is responsible for providing alternative compensatory
1557 mitigation that is acceptable to the permitting authority for any loss in functions resulting from
1558 the incompatible use.⁴⁰

1559 (5) A real estate instrument, management plan, or other long-term protection mechanism used
1560 for site protection of permittee-responsible mitigation must be approved by the permitting
1561 authority in advance of, or concurrent with, the activity causing the authorized impacts.

1562 (b) Sustainability. Compensatory mitigation projects shall be designed, to the maximum extent
1563 practicable, to be self-sustaining once performance standards have been achieved. This includes
1564 minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that
1565 natural hydrology and landscape context will support long-term sustainability. Where active long-
1566 term management and maintenance are necessary to ensure long-term sustainability (e.g.,
1567 prescribed burning, invasive species control, maintenance of water control structures, easement
1568 enforcement), the responsible party must provide for such management and maintenance. This
1569 includes the provision of long-term financing mechanisms where necessary. Where needed, the
1570 acquisition and protection of water rights must be secured and documented in the Order conditions
1571 or instrument.

1572 (c) Adaptive management.

1573 (1) If the compensatory mitigation project cannot be constructed in accordance with the
1574 approved mitigation plans, the permittee or sponsor must notify the permitting authority. A
1575 significant modification of the compensatory mitigation project requires approval from the
1576 permitting authority.

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1577 (2) If monitoring or other information indicates that the compensatory mitigation project is not
1578 progressing towards meeting its performance standards as anticipated, the responsible party
1579 must notify the permitting authority as soon as possible. The permitting authority will evaluate
1580 and pursue measures to address deficiencies in the compensatory mitigation project. The
1581 permitting authority will consider whether the compensatory mitigation project is providing
1582 ecological benefits comparable to the original objectives of the compensatory mitigation project.

1583 (3) The permitting authority, in consultation with the responsible party (and other federal, tribal,
1584 state, and local agencies, as appropriate), will determine the appropriate measures. The
1585 measures may include site modifications, design changes, revisions to maintenance
1586 requirements, and revised monitoring requirements. The measures must be designed to ensure
1587 that the modified compensatory mitigation project provides aquatic resource functions
1588 comparable to those described in the mitigation plan objectives.⁴⁴

1589 (4) Performance standards may be revised in accordance with adaptive management to
1590 account for measures taken to address deficiencies in the compensatory mitigation project.
1591 Performance standards may also be revised to reflect changes in management strategies and
1592 objectives if the new standards provide for ecological benefits that are comparable or superior to
1593 the approved compensatory mitigation project. No other revisions to performance standards will
1594 be allowed except in the case of natural disasters.

1595 (d) Long-term management.

1596 (1) The Order conditions or instrument must identify the party responsible for ownership and all
1597 long-term management of the compensatory mitigation project. The Order conditions or
1598 instrument may contain provisions allowing the permittee or sponsor to transfer the long-term
1599 management responsibilities of the compensatory mitigation project site to a land stewardship
1600 entity, such as a public agency, non-governmental organization, or private land manager, after
1601 review and approval by the permitting authority. The land stewardship entity need not be
1602 identified in the original Order or instrument, as long as the future transfer of long-term
1603 management responsibility is approved by the permitting authority.

1604 (2) A long-term management plan should include a description of long-term management
1605 needs, annual cost estimates for these needs, and identify the funding mechanism that will be
1606 used to meet those needs.

1607 (3) Any provisions necessary for long-term financing must be addressed in the original Order or
1608 instrument. The permitting authority may require provisions to address inflationary adjustments
1609 and other contingencies, as appropriate. Appropriate long-term financing mechanisms include
1610 non-wasting endowments, trusts, contractual arrangements with future responsible parties, and
1611 other appropriate financial instruments. In cases where the long-term management entity is a
1612 public authority or government agency, that entity must provide a plan for the long-term
1613 financing of the site.

1614 (4) For permittee-responsible mitigation, any long-term financing mechanisms must be
1615 approved in advance of the activity causing the authorized impacts.

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