



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

**[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**

**Adopted April 2, 2019**

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# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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## I. Introduction<sup>1</sup>

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

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

## II. Wetland Definition

The Water Boards define an area as wetland as follows:

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

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<sup>1</sup> [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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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.” “Waters of the state” includes all “waters of  
41 the U.S.”<sup>2</sup> The following wetlands are waters of the state:

- 42 1. Natural wetlands,
- 43 2. Wetlands created by modification of a surface water of the state,<sup>3</sup> and
- 44 3. Artificial wetlands<sup>4</sup> that meet any of the following criteria:
  - 45 a. Approved by an agency as compensatory mitigation for impacts to other waters of the state,  
46 except where the approving agency explicitly identifies the mitigation as being of limited  
47 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 the criteria  
54 set forth in 2, 3a, or 3b):
    - 55 i. Industrial or municipal wastewater treatment or disposal,
    - 56 ii. Settling of sediment,
    - 57 iii. Detention, retention, infiltration, or treatment of stormwater runoff and other  
58 pollutants or runoff subject to regulation under a municipal, construction, or industrial  
59 stormwater permitting program,
    - 60 iv. Treatment of surface waters,
    - 61 v. Agricultural crop irrigation or stock watering,
    - 62 vi. Fire suppression,
    - 63 vii. Industrial processing or cooling,
    - 64 viii. Active surface mining – even if the site is managed for interim wetlands functions  
65 and values,

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

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

<sup>4</sup> Artificial wetlands are wetlands that result from human activity.

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- 66 ix. Log storage,  
67 x. Treatment, storage, or distribution of recycled water, or  
68 xi. Maximizing groundwater recharge (this does not include wetlands that have  
69 incidental groundwater recharge benefits); or  
70 xii. Fields flooded for rice growing.<sup>5</sup>

71 All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a,  
72 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is  
73 on the applicant to demonstrate that the wetland is not a water of the state.

### 74 III. Wetland Delineation

75 The permitting authority shall rely on any wetland area delineation from a final aquatic resource report  
76 verified by the U.S. Army Corps of Engineers (Corps) for the purposes of determining the extent of  
77 wetland waters of the U.S. A delineation of any wetland areas potentially impacted by the project that  
78 are not delineated in a final aquatic resource report verified by the Corps shall be performed using the  
79 methods described in the three federal documents listed below (collectively referred to as “1987 Manual  
80 and Supplements”) to determine whether the area meets the state definition of a wetland as defined  
81 above. As described in the 1987 Manual and Supplements, an area “lacks vegetation” if it has less  
82 than 5 percent areal coverage of plants at the peak of the growing season. The methods shall be  
83 modified only to allow for the fact that the lack of vegetation does not preclude the determination of  
84 such an area that meets the definition of wetland. Terms as defined in these Procedures shall be used  
85 if there is conflict with terms in the 1987 Manual and Supplements.

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

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

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## 97 **IV. Procedures for Regulation of Discharges of Dredged or Fill Material to** 98 **Waters of the State**

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

110 Unless excluded by section IV.D, applicants must file an application with the Water Boards for any  
111 activity that could result in the discharge of dredged or fill material to waters of the state in accordance  
112 with California Code of Regulations, title 23, section 3855.<sup>10</sup> This application requirement applies to  
113 new discharges, proposed material changes in the character, location, or volume of existing  
114 discharges, and upon renewal of existing Orders for existing discharges. The permitting authority may  
115 amend an existing Order solely for the purpose of extending the expiration date without requiring a new  
116 application.

117 The applicant may consult with the Water Boards to determine whether a project could result in a  
118 discharge of dredged or fill material to waters of the state and/or discuss submittals that would meet the  
119 application requirements listed below. Discharges of dredged or fill material or other waste material to

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

<sup>7</sup> 40 C.F.R. § 230.

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

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

<sup>10</sup> 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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120 areas that are not waters of the state, but that could affect the quality of waters of the state, may be  
121 addressed under other Water Board regulatory programs.

## 122 **A. Project Application Submittal for Individual Orders**

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

### 136 1. Items Required for a Complete Application

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

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<sup>11</sup> 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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- 160 of impacts to waters proposed to be dredged at each dredging location to the nearest cubic yard  
161 (as applicable); assessment of potential direct and indirect impacts resulting from the discharge  
162 or dredging activity and potential mitigation measures for those potential impacts, identification  
163 of existing water quality impairment(s); the source of water quality impairment(s), if known; and  
164 the presence of rare, threatened or endangered species<sup>12</sup> habitat.
- 165 g. An alternatives analysis,<sup>13</sup> unless any of the following exemptions apply. The exemption from  
166 the alternatives analysis requirement does not preclude a permitting authority from requiring the  
167 applicant to demonstrate in its application that the project complies with section IV.B.1.a.
- 168 i. The project includes discharges to waters of the state outside of federal jurisdiction, but the  
169 entire project would meet the terms and conditions of one or more Water Board-certified  
170 Corps' General Permits, including any Corps District's regional terms and conditions, if all  
171 discharges were to waters of the U.S. The permitting authority will verify that the entire  
172 project would meet the terms and conditions of the Corps' General Permit(s) if all  
173 discharges, including discharges to waters of the state outside of federal jurisdiction, were  
174 to waters of the U.S. based on information supplied by the applicant.
- 175 ii. The project includes only discharges to waters of the U.S. and meets the terms and  
176 conditions for coverage under an uncertified Corps' General Permit, including any Corps  
177 District's regional terms and conditions. This exemption does not apply if the discharge of  
178 dredged or fill material will directly impact:
- 179 a) more than two-tenths (0.2) of an acre or 300 linear feet of waters of the state;  
180 b) rare, threatened, or endangered species habitat in waters of the state;  
181 c) wetlands or eel grass beds; or  
182 d) Outstanding National Resource Waters or Areas of Special Biological  
183 Significance.
- 184 iii. The project would be conducted in accordance with a watershed plan that has been  
185 approved for use by the permitting authority and analyzed in an environmental document  
186 that includes a sufficient alternatives analysis, monitoring provisions, and guidance on  
187 compensatory mitigation opportunities.
- 188 iv. The project is an Ecological Restoration and Enhancement Project.
- 189 v. The project has no permanent impacts to aquatic resources and no impacts to rare,  
190 threatened or endangered species habitat in waters of the state, wetlands or eel grass  
191 beds, Outstanding National Resource Waters or Areas of Special Biological Significance,

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<sup>12</sup> "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.).

<sup>13</sup> "Alternatives analysis" as used in these Procedures refer to the analysis required by section IV.A.1.h and is a means to comply with the State Supplemental Dredge or Fill Guidelines, section 230.10(a). An alternatives analysis also may be required in order to comply with other statutory or regulatory requirements, such as CEQA or a Regional Board water quality control plan discharge prohibition. The exemptions and the tiers set forth below do not affect any alternatives analysis conducted pursuant to another statutory or regulatory requirement. To the extent that the permitting authority is acting as the lead agency under CEQA, it may be necessary for the permitting authority to conduct further analysis to comply with CEQA.



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192 and all implementation actions in the restoration plan can reasonably be concluded within  
193 one year.

- 194 h. If none of the above exemptions apply, the applicant must submit an alternatives analysis  
195 consistent with the requirements of section 230.10 of the State Supplemental Dredge or Fill  
196 Guidelines that allows the permitting authority to determine whether the proposed project is the  
197 Least Environmentally Damaging Practicable Alternative (LEDPA). If the applicant submitted  
198 information to the Corps to support an alternatives analysis, the applicant shall provide that  
199 information to the permitting authority. Such information may satisfy some or all of the following  
200 requirements in accordance with section IV.B.3. Alternatives analyses shall be completed in  
201 accordance with the following tiers. The level of effort required for an alternatives analysis  
202 within each of the three tiers shall be commensurate with the significance of the impacts  
203 resulting from the discharge.<sup>14</sup>
- 204 i. Tier 3 projects include any discharge of dredged or fill material that directly impacts more  
205 than two-tenths (0.2) of an acre or 300 linear feet of waters of the state, rare, threatened or  
206 endangered species habitat in waters of the state, wetlands or eel grass beds, or  
207 Outstanding National Resource Waters or Areas of Special Biological Significance, and is  
208 not a project that inherently cannot be located at an alternate location. Tier 3 projects shall  
209 provide an analysis of off-site and on-site alternatives.
- 210 ii. Tier 2 projects include any discharge of dredged or fill material that directly impacts more  
211 than one tenth (0.1) and less than or equal to two tenths (0.2) of an acre or more than 100  
212 and less than or equal to 300 linear feet of waters of the state unless it meets the criteria  
213 for a Tier 3 project, or any project that inherently cannot be located at an alternate location  
214 (unless it meets the size requirements set forth in Tier 1). Tier 2 projects shall provide an  
215 analysis of only on-site alternatives. For routine operation and maintenance of existing  
216 facilities, analysis of on-site alternatives is limited to operation and maintenance  
217 alternatives for the facility.
- 218 iii. Tier 1 projects include any discharge of dredged or fill material that directly impacts less  
219 than or equal to one tenth (0.1) of an acre or less than or equal to 100 linear feet of waters  
220 of the state, unless it meets the criteria for a Tier 3 project. Tier 1 projects shall provide a  
221 description of any steps that have been or will be taken to avoid and minimize loss of, or  
222 significant adverse impacts to, beneficial uses of waters of the state.

## 223 2. Additional Information Required for a Complete Application

- 224 a. If required by the permitting authority on a case-by-case basis, supplemental field data from the  
225 wet season to substantiate dry season delineations, as is consistent with the 1987 Manual and  
226 Supplements.
- 227 b. If compensatory mitigation is required by the permitting authority, on a case-by-case basis, a  
228 draft compensatory mitigation plan developed using a watershed approach containing the items  
229 listed below. Compensatory mitigation plans are not required for Ecological Restoration and  
230 Enhancement Projects. For permittees who intend to fulfill their compensatory mitigation

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<sup>14</sup> As used below, "impacts" include both permanent and temporary impacts.

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- 231 obligations by securing credits from approved mitigation banks or in-lieu fee programs, their  
232 mitigation plans need include only items i, ii, and iii, as described below, as well as information  
233 required in the State Supplemental Dredge or Fill Guidelines, section 230.94 (c)(5) and (c)(6),  
234 and the name of the specific mitigation bank or in-lieu fee program proposed to be used.
- 235 Draft compensatory mitigation plans shall comport with the State Supplemental Dredge or Fill  
236 Guidelines, Subpart J, and include the items listed below.
- 237 i. A watershed profile for the project evaluation area for both the proposed dredged or fill  
238 project and the proposed compensatory mitigation project.
  - 239 ii. An assessment of the overall condition of aquatic resources proposed to be impacted by  
240 the project and their likely stressors, using an assessment method approved by the  
241 permitting authority.
  - 242 iii. A description of how the project impacts and compensatory mitigation would not cause a  
243 net loss of the overall abundance, diversity, and condition of aquatic resources, based on  
244 the watershed profile. If the compensatory mitigation is located in the same watershed as  
245 the project, no net loss will be determined on a watershed basis. If the compensatory  
246 mitigation and project impacts are located in multiple watersheds, no net loss will be  
247 determined considering all affected watersheds collectively. The level of detail in the plan  
248 shall be sufficient to accurately evaluate whether compensatory mitigation offsets the  
249 adverse impacts attributed to a project.
  - 250 iv. Preliminary information about ecological performance standards, monitoring, and long-term  
251 protection and management, as described in the State Supplemental Dredge or Fill  
252 Guidelines.
  - 253 v. A timetable for implementing the compensatory mitigation plan.
  - 254 vi. If the compensatory mitigation plan includes buffers, design criteria and monitoring  
255 requirements for those buffers.
  - 256 vii. If the compensatory mitigation involves restoration or establishment as the form of  
257 mitigation, applicants shall notify, as applicable, state and federal land management  
258 agencies, airport land use commission, fire control districts, flood control districts, local  
259 mosquito-vector control district(s), and any other interested local entities prior to initial site  
260 selection. These entities should be notified as early as possible during the initial  
261 compensatory mitigation project design stage.
  - 262 viii. If required by the permitting authority, an assessment of reasonably foreseeable impacts to  
263 the compensatory mitigation associated with climate change, and any measures to avoid  
264 or minimize those potential impacts.
- 265 c. If required by the permitting authority on a case-by-case basis, if project activities include in-  
266 water work or water diversions, a proposed water quality monitoring plan to monitor compliance  
267 with water quality objectives of the applicable water quality control plan. At a minimum, the plan  
268 should include type and frequency of sampling for each applicable parameter.
  - 269 d. In all cases where temporary impacts are proposed, a draft restoration plan that outlines design,  
270 implementation, assessment, and maintenance for restoring areas of temporary impact to pre-  
271 project conditions. The design components shall include the objectives of the restoration plan;  
272 grading plan of disturbed areas to pre-project contours; a planting palette with plant species

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273 native to the area; seed collection locations; and an invasive species management plan. The  
274 implementation component shall include all proposed actions to implement the plan (e.g., re-  
275 contouring, initial planting, site stabilization, removal of temporary structures) and a schedule for  
276 completing those actions. The maintenance and assessment components shall include a  
277 description of performance standards used to evaluate attainment of objectives; the timeframe  
278 for determining attainment of performance standards; and maintenance requirements (e.g.,  
279 watering, weeding, replanting and invasive species control). If temporary impacts are proposed  
280 to be restored through passive restoration, the draft restoration plan shall include an explanation  
281 of how passive restoration will restore the area to pre-project conditions, assessment  
282 components, and an estimated date for expected restoration. The level of detail in the  
283 restoration plan shall be sufficient to accurately evaluate whether the restoration addresses the  
284 adverse temporary impacts attributed to a project. The applicant shall submit a final restoration  
285 plan that describes the restoration of all temporarily disturbed areas to pre-project conditions,  
286 consistent with section IV.B.4.

287 For Ecological Restoration and Enhancement Projects, a restoration plan for temporary impacts  
288 provided as part of the binding stream or wetland enhancement or restoration agreement or  
289 wetland establishment agreement may satisfy this requirement.

290 e. For all Ecological Restoration and Enhancement Projects, a draft assessment plan including the  
291 following: project objectives; description of performance standards used to evaluate attainment  
292 of objectives; protocols for condition assessment; the timeframe and responsible party for  
293 performing condition assessment; and assessment schedule. A draft assessment plan shall  
294 provide for at least one assessment of the overall condition of aquatic resources and their likely  
295 stressors, using an appropriate assessment method approved by the permitting authority, prior  
296 to restoration and/or enhancement and two years following restoration and/or enhancement to  
297 determine success of the restoration and/or enhancement. An assessment plan approved by a  
298 federal or state resource agency, or a local agency with the primary function of managing land  
299 or water for wetland habitat purposes in accordance with a binding stream or wetland  
300 enhancement agreement, restoration agreement, or establishment agreement, will satisfy these  
301 requirements. An assessment plan approved by a non-governmental conservation organization  
302 or a state or federal agency that is statutorily tasked with natural resource management may  
303 satisfy some or all of these requirements.

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

- 305 1. The permitting authority will evaluate the potential impacts on the aquatic environment from the  
306 proposed project and determine whether the proposed project complies with these Procedures.  
307 The permitting authority has the discretion to approve a project only if the applicant has  
308 demonstrated the following:
- 309 a. A sequence of actions has been taken to first avoid, then to minimize, and lastly compensate for  
310 adverse impacts that cannot be practicably avoided or minimized to waters of the state;
  - 311 b. The potential impacts will not contribute to a net loss of the overall abundance, diversity, and  
312 condition of aquatic resources in a watershed (or multiple watersheds when compensatory  
313 mitigation is permitted in another watershed as set forth in section IV.B.5(d));
  - 314 c. The discharge of dredged or fill material will not violate water quality standards and will be  
315 consistent with all applicable water quality control plans and policies for water quality control;  
316 and
  - 317 d. The discharge of dredged or fill material will not cause or contribute to significant degradation of

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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318 the waters of the state.

319 2. The permitting authority shall rely on any final aquatic resource report verified by the Corps to  
320 determine boundaries of waters of the U.S. For all other wetland area delineations, the permitting  
321 authority shall review and approve delineations that are performed using the methods described in  
322 section III.

323 3. Alternatives Analysis Review Requirements:

324 a. The purpose of the alternatives analysis is to identify the LEDPA. The permitting authority will  
325 be responsible for determining the sufficiency of an alternatives analysis except as described in  
326 3(b) below. In all cases, the alternatives analysis must establish that the proposed project  
327 alternative is the LEDPA in light of all potential direct, secondary (indirect), and cumulative  
328 impacts on the physical, chemical, and biological elements of the aquatic ecosystem.

329 b. Discharges to waters of the U.S.

330 In reviewing and approving the alternatives analysis for discharges of dredged or fill material  
331 that impact waters of the U.S., the permitting authority shall defer to the Corps' determinations  
332 on the adequacy of the alternatives analysis, or rely on a draft alternatives analysis if no final  
333 determination has been made, unless the Executive Officer or Executive Director determines  
334 that (1) the permitting authority was not provided an adequate opportunity to collaborate in the  
335 development of the alternatives analysis, (2) the alternatives analysis does not adequately  
336 address aquatic resource issues identified in writing by the Executive Officer or Executive  
337 Director to the Corps during the development of the alternatives analysis, or (3) the proposed  
338 project and all of the identified alternatives would not comply with water quality standards.

339 If the project also includes discharges to waters of the state outside of federal jurisdiction, the  
340 permitting authority shall require the applicant to supplement the alternatives analysis to include  
341 waters of the state outside of federal jurisdiction unless the applicant has consulted with the  
342 permitting authority and the alternatives analysis addresses all issues identified by the  
343 permitting authority during the consultation process. If an alternatives analysis is not required  
344 by the Corps for discharges of dredged or fill material to waters of the U.S., the permitting  
345 authority shall require an alternatives analysis for the entire project in accordance with the State  
346 Supplemental Dredge or Fill Guidelines, unless the project is exempt under section IV.A.1(g)  
347 above.

348 The permitting authority shall not apply the presumption set forth in the State Supplemental  
349 Dredge or Fill Guidelines, section 230.10(a)(3) to any non-vegetated waters of the U.S. that the  
350 Corps does not classify as a special aquatic site (as defined in subpart E of U.S. EPA's section  
351 404(b)(1) Guidelines).

352 4. Prior to or concurrent with issuance of the Order, the permitting authority will approve the final  
353 restoration plan for temporary impacts. Generally, the permitting authority will approve the final  
354 restoration plan when it issues the Order. The permitting authority may approve the final restoration  
355 plan after it issues the Order. In such cases the permitting authority shall include as a condition of  
356 the Order that the applicant receive approval of the final restoration plan prior to initiating the  
357 temporary impacts and shall specify a process for approving the final restoration plan.

358 5. Compensatory Mitigation

359 a. Compensatory mitigation, in accordance with the State Supplemental Dredge or Fill Guidelines,  
360 Subpart J, may be required to ensure that an activity complies with these Procedures.  
361 Consistent with section 230.93(a)(2) of the State Supplemental Guidelines, subject to the

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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- 362 permitting authority's approval, compensatory mitigation may be performed using methods of  
363 restoration, enhancement, establishment, and in certain circumstances preservation.  
364 Restoration should generally be the first option considered because the likelihood of success is  
365 greater and the impacts to potentially ecologically important uplands are reduced compared to  
366 establishment, and the potential gains in terms of aquatic resource functions are greater,  
367 compared to enhancement and preservation.
- 368 b. Where feasible, the permitting authority will consult and coordinate with any other public  
369 agencies that have concurrent mitigation requirements in order to achieve multiple  
370 environmental benefits with a single mitigation project, thereby reducing the cost of compliance  
371 to the applicant.
- 372 c. Amount: The amount of compensatory mitigation will be determined on a project-by-project  
373 basis in accordance with State Supplemental Dredge or Fill Guidelines, section 230.93(f). The  
374 permitting authority may take into account recent anthropogenic degradation to the aquatic  
375 resource and the potential and existing functions and conditions of the aquatic resource. The  
376 permitting authority may reduce the amount of compensatory mitigation if buffer areas adjacent  
377 to the compensatory mitigation are also required to be maintained as part of the compensatory  
378 mitigation management plan. The amount of compensatory mitigation required by the  
379 permitting authority will vary depending on which of the following strategies the applicant uses to  
380 locate the mitigation site within a watershed.
- 381 Strategy 1: Applicant locates compensatory mitigation using a watershed approach based on a  
382 watershed profile developed from a watershed plan that: (1) has been approved for use by the  
383 permitting authority and analyzed in an environmental document, (2) includes monitoring  
384 provisions, and (3) includes guidance on compensatory mitigation opportunities.
- 385 Strategy 2: Applicant locates compensatory mitigation using a watershed approach based on a  
386 watershed profile developed for a project evaluation area, and demonstrates that the mitigation  
387 project will contribute to the sustainability of watershed functions and the overall health of the  
388 watershed area's aquatic resources.
- 389 Generally, the amount of compensatory mitigation required under Strategy 1 will be less than  
390 the amount of compensatory mitigation required under Strategy 2 since the level of certainty  
391 that a compensatory mitigation project will meet its performance standards increases if the  
392 compensatory mitigation project complies with a watershed plan as described above. Certainty  
393 increases when there is a corresponding increase in understanding of watershed conditions,  
394 which is increased when using a watershed plan as described above to determine  
395 compensatory mitigation requirements.
- 396 A minimum of one-to-one mitigation ratio,<sup>15</sup> measured as area or length, is required to  
397 compensate for wetland or stream losses when compensatory mitigation is required. Subject to  
398 the permitting authority's approval, the ratio may be satisfied using any of the methods identified  
399 in section IV.B.5(a). A higher overall mitigation ratio shall be used where necessary to ensure  
400 replacement of lost aquatic resource functions, as described in the State Supplemental Dredge  
401 or Fill Guidelines, section 230.93(f). Where temporary impacts will be restored to pre-project  
402 conditions, the permitting authority may require compensatory mitigation for temporal loss from  
403 the temporary impacts.

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



# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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404 d. Type and Location: The permitting authority will evaluate the applicant's proposed mitigation  
405 type and location based on the applicant's use of a watershed approach based on a watershed  
406 profile. The permitting authority will determine the appropriate type and location of  
407 compensatory mitigation based on watershed conditions, impact size, location and spacing,  
408 aquatic resource values, relevant watershed plans, and other considerations.

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

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

423 Generally, the permitting authority will approve the final compensatory mitigation plan when it  
424 issues the Order. Where compliant with CEQA, the permitting authority may approve the final  
425 compensatory mitigation plan after it issues the Order. In such cases the permitting authority  
426 shall include as a condition of the Order that the applicant receive approval of the final mitigation  
427 plan prior to discharging dredged or fill material to waters of the state and shall specify a  
428 process for approving the final mitigation plan.

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

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

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

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

## 447 C. General Orders

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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

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

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

## 458 **D. Activities and Areas Excluded from the Application Procedures for Regulation of** 459 **Discharges of Dredged or Fill Material to Waters of the State**

460 The application procedures specified in sections IV.A and IV.B do not apply to proposed discharges of  
461 dredged or fill material to waters of the state from the following activities<sup>16</sup> or to the following areas.  
462 These exclusions do not, however, affect the Water Board's authority to issue or waive waste discharge  
463 requirements (WDRs) or take other actions for the following activities or areas to the extent authorized  
464 by the Water Code.

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

466 a. Activities that are exempt under CWA section 404(f) (33 USC § 1344(f)).<sup>17</sup> The permitting  
467 authority shall use 33 CFR 323.4 (1986) and 40 CFR 232.3 (1988) to determine whether certain  
468 activities are exempt under CWA section 404(f). These regulations are hereby incorporated by  
469 reference and shall apply to all waters of the state. Consistent with CWA section 404(f)(2) and  
470 40 CFR section 232.3, any discharge of dredged or fill material to a water of the state incidental  
471 to any of these activities is not exempt under CWA section 404(f) and shall be subject to the  
472 application procedures set forth in sections IV.A and IV.B, if (1) the purpose of the activity is  
473 bringing a water of the state into a use to which it was not previously subject, where the flow or  
474 circulation of water of the state may be impaired or the reach of such waters be reduced, or (2)  
475 the discharge contains any toxic pollutant listed in CWA section 307.

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

477 c. Routine and emergency operation and maintenance activities conducted by public agencies,  
478 water utilities, or special districts that result in discharge of dredged or fill material to artificial,  
479 existing waters of the state:

480 i. currently used and maintained primarily for one or more of the purposes listed in section  
481 II.3.d. (ii), (iii), (iv), (x), or (xi); or

482 ii. for the purpose of preserving the line, grade, volumetric or flow capacity within the  
483 existing footprint of a flood control or stormwater conveyance facility.

484 This exclusion does not relieve public agencies, water utilities or special districts of their

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

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



# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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

499 d. Routine operation and maintenance activities that result in discharge of dredged or fill material  
500 to artificially-created waters currently used and maintained primarily for one or more of the  
501 purposes listed in section II.3.d. (i), (ii), (iii), (vi), (vii), (x), or (xi). This exclusion does not apply  
502 to the discharge of dredged or fill material to (a) a water of the U.S., (b) a water specifically  
503 identified in a water quality control plan, (c) a water created by modification of a water of the  
504 state, or (d) a water approved by an agency as compensatory mitigation.

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

506 a. Wetland areas that qualify as prior converted cropland (PCC) within the meaning of 33 CFR  
507 section 328.3(b)(2). The applicant may establish that the area is PCC by providing relevant  
508 documentary evidence that the area qualifies as PCC and has not been abandoned due to five  
509 consecutive years of non-use for agricultural purposes, or by providing a current PCC  
510 certification by the Natural Resources Conservation Service, the Corps, or the U.S. EPA to the  
511 permitting authority.

512 b. Wetlands that are, or have been, in rice cultivation (including wild rice) within the last five years  
513 as of April 2, 2019 and have not been abandoned due to five consecutive years of non-use in  
514 rice production.

515 c. The following features used for agricultural purposes:

516 i. Ditches with ephemeral flow that are not a relocated water of the state or excavated in a  
517 water of the state;

518 ii. Ditches with intermittent flow that are not a relocated water of the state or excavated in a  
519 water of the state, or that do not drain wetlands other than any wetlands described in  
520 sections (iv) or (v);

521 iii. Ditches that do not flow, either directly or through another water, into another water of  
522 the state;

523 iv. Artificially irrigated areas that would revert to dry land should application of waters to that  
524 area cease; or

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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

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

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

## 536 V. Definitions

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

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

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

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

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

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

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

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

564 Such projects are undertaken:

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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565 1) in accordance with the terms and conditions of a binding stream or wetland enhancement or  
566 restoration agreement, or a wetland establishment agreement, between the real property  
567 interest owner or the entity conducting the habitat restoration or enhancement work and:

568 a. a federal or state resource agency, including, but not limited to, the U.S. Fish and  
569 Wildlife Service, Natural Resources Conservation Service, Farm Service Agency,  
570 National Marine Fisheries Service, National Oceanic and Atmospheric Administration,  
571 U.S. Forest Service, U.S. Bureau of Land Management, California Department of Fish  
572 and Wildlife, California Wildlife Conservation Board, California Coastal Conservancy or  
573 the Delta Conservancy;

574 b. a local agency with the primary function of managing land or water for wetland habitat  
575 purposes; or

576 c. a non-governmental conservation organization; or

577 2) by a state or federal agency that is statutorily tasked with natural resource management.

578 These projects do not include the conversion of a stream or natural wetland to uplands or stream  
579 channelization. It is recognized that Ecological Restoration and Enhancement Projects may require  
580 ongoing maintenance or management to maximize fish, wildlife, habitat, or other ecological benefits, or  
581 filling gullied stream channels and similar rehabilitative activities to re-establish stream and meadow  
582 hydrology. Changes in wetland plant communities that occur when wetland hydrology is more fully  
583 restored during rehabilitation activities are not considered a conversion to another aquatic habitat type.  
584 These projects also do not include actions required under a Water Board Order for mitigation, actions to  
585 service required mitigation, or actions undertaken for the primary purpose of land development.

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

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

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

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

598 **Order** means waste discharge requirements, waivers of waste discharge requirements, or water quality  
599 certification.

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

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

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

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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

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

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

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

623 **Watershed Plan** means a document, or a set of documents, developed in consultation with relevant  
624 stakeholders, a specific goal of which is aquatic resource restoration, establishment, enhancement, and  
625 preservation within a watershed. A watershed plan addresses aquatic resource conditions in the  
626 watershed, multiple stakeholder interests, and land uses. Watershed plans should include information  
627 about implementing the watershed plan. Watershed plans may also identify priority sites for aquatic  
628 resource restoration and protection. Examples of watershed plans include special area management  
629 plans, advance identification programs, and wetland management plans. The permitting authority may  
630 approve the use of other plans, including for example, Habitat Conservation Plans (HCPs), Natural  
631 Community Conservation Plans (NCCPs), or municipal stormwater permit watershed management  
632 programs as watershed plans, if they substantially meet the stated above. Any NCCP approved by the  
633 California Department of Fish and Wildlife before December 31, 2020, and any regional HCP approved  
634 by the United States Fish and Wildlife Service before December 31, 2020, which includes biological  
635 goals for aquatic resources, shall be used by the permitting authority as a watershed plan for such  
636 aquatic resources, unless the permitting authority determines in writing that the HCP or NCCP does not  
637 substantially meet the definition of a watershed plan for such aquatic resources.

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

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

649 The scope and detail of the watershed profile shall be commensurate with the magnitude of impact  
650 associated with the proposed project. Information sources include online searches, maps, watershed

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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651 plans, and possibly some fieldwork if necessary. In some cases, field data may need to be collected in  
652 the project evaluation area to confirm the reported condition. Some or all of the information may be  
653 obtained from a watershed plan. Watershed profiles for subsequent projects in a watershed can be  
654 used to track the cumulative effectiveness of the permitting authority's decisions.

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

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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## 659 **Appendix A: State Supplemental Dredge or Fill Guidelines**

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

### 670 **Subpart A – General**

#### 671 § 230.3 Definitions.

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

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

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

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

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

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

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

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

#### 692 § 230.6 Adaptability

693 (a) The manner in which these Guidelines are used depends on the physical, biological, and  
694 chemical nature of the proposed extraction site, the material to be discharged, and the candidate  
695 disposal site, including any other important components of the ecosystem being evaluated.  
696 Documentation to demonstrate knowledge about the extraction site, materials to be extracted, and  
697 the candidate disposal site is an essential component of guideline application. These Guidelines  
698 allow evaluation and documentation for a variety of activities, ranging from those with large,  
699 complex impacts on the aquatic environment to those for which the impact is likely to be innocuous.



# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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700 It is unlikely that the Guidelines will apply in their entirety to any one activity, no matter how  
701 complex. It is anticipated that substantial numbers of applications will be for minor, routine activities  
702 that have little, if any, potential for significant degradation of the aquatic environment. It generally is  
703 not intended or expected that extensive testing, evaluation or analysis will be needed to make  
704 findings of compliance in such routine cases.

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

709 (c) An essential part of the evaluation process involves making determinations as to the relevance  
710 of any portion(s) of the Guidelines and conducting further evaluation only as needed. However,  
711 where portions of the Guidelines review procedure are “short form” evaluations, there still must be  
712 sufficient information (including consideration of both individual and cumulative impacts) to support  
713 the decision of whether to specify the site for disposal of dredged or fill material and to support the  
714 decision to curtail or abbreviate the evaluation process. The presumption against the discharge in  
715 [§ 230.10](#) applies to this decision-making.

## 716 **Subpart B – Compliance with Guidelines**

### 717 § 230.10 Restrictions on Discharge

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

## 763 **Subpart E –Special Aquatic Sites**

764 § 230.40 Sanctuaries and refuges

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

767 § 230.41 Wetlands.

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

769 § 230.42 Mud Flats.

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

776 § 230.43 Vegetated shallows.

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

780 § 230.45 Riffle and Pool Complexes.

781 (a) Steep gradient sections of streams are sometimes characterized by riffle and pool complexes. Such  
782 stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over

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783 a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen  
784 levels in the water. Pools are deeper areas associated with riffles. Pools are characterized by a slower  
785 stream velocity, a streaming flow, a smooth surface, and a finer substrate. Riffle and pool complexes  
786 are particularly valuable habitat for fish and wildlife.

## 787 **Subpart H – Actions to Minimize Adverse Effects**

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

### 792 § 230.70 Actions concerning the location of the discharge.

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

- 795 (a) Locating and confining the discharge to minimize smothering of organisms;
- 796 (b) Designing the discharge to avoid a disruption of periodic water inundation patterns;
- 797 (c) Selecting a disposal site that has been used previously for dredged material discharge;
- 798 (d) Selecting a disposal site at which the substrate is composed of material similar to that being  
799 discharged, such as discharging sand on sand or mud on mud;
- 800 (e) Selecting a disposal site, the discharge point, and the method of discharge to minimize the  
801 extent of any plume;
- 802 (f) Designing the discharge of dredged or fill material to minimize or prevent the creation of standing  
803 bodies of water in areas of normally fluctuating water levels, and minimize or prevent the drainage  
804 of areas subject to such fluctuations.

### 805 § 230.71 Actions concerning the material to be discharged

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

- 808 (a) Disposal of dredged material in such a manner that physiochemical conditions are maintained,  
809 and the potency and availability of pollutants are reduced.
- 810 (b) Limiting the solid, liquid, and gaseous components of material to be discharged at a particular  
811 site;
- 812 (c) Adding treatment substances to the discharge material;
- 813 (d) Utilizing chemical flocculants to enhance the deposition of suspended particulates in diked  
814 disposal areas.

### 815 § 230.72 Actions controlling the material after discharge.

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

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

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

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

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861 § 230.75 Actions affecting plant and animal populations.

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

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

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

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

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

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

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

882 § 230.76 Actions affecting human use.

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

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

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

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

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

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

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

895 § 230.77 Other actions.

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

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

899 (c) In dredging projects funded by Federal agencies other than the Corps of Engineers, maintain  
900 desired water quality of the return discharge through agreement with the Federal funding authority

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

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

## 906 **Subpart J – Compensatory Mitigation for Losses of Aquatic Resources**

907 § 230.91 Purpose and general considerations.

908 (a) Purpose.

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

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

916 § 230.92 Definitions.

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

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

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

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

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

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

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



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- 943 Days means calendar days.
- 944 Debit means a unit of measure (e.g., a functional or areal measure or other suitable metric)  
945 representing the loss of aquatic functions at an impact or project site. The measure of aquatic  
946 functions is based on the resources impacted by the authorized activity.
- 947 Enhancement means the manipulation of the physical, chemical, or biological characteristics of an  
948 aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s).  
949 Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a  
950 decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic  
951 resource area.
- 952 Establishment (creation) means the manipulation of the physical, chemical, or biological  
953 characteristics present to develop an aquatic resource that did not previously exist at an upland site.  
954 Establishment results in a gain in aquatic resource area and functions.
- 955 Functional capacity means the degree to which an area of aquatic resource performs a specific  
956 function.
- 957 Functions means the physical, chemical, and biological processes that occur in ecosystems.
- 958 Impact means adverse effect.
- 959 In-kind means a resource of a similar structural and functional type to the impacted resource.
- 960 In-lieu fee program means a program involving the restoration, establishment, enhancement, and/or  
961 preservation of aquatic resources through funds paid to a governmental or non-profit natural  
962 resources management entity to satisfy compensatory mitigation requirements for Orders. Similar to  
963 a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose  
964 obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor.  
965 However, the rules governing the operation and use of in-lieu fee programs are somewhat different  
966 from the rules governing operation and use of mitigation banks. The operation and use of an in-lieu  
967 fee program are governed by an in-lieu fee program instrument.
- 968 In-lieu fee program instrument means the legal document for the establishment, operation, and use of  
969 an in-lieu fee program.
- 970 Instrument means mitigation banking instrument or in-lieu fee program instrument.
- 971 Mitigation bank means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian  
972 areas) are restored, established, enhanced, and/or preserved for the purpose of providing  
973 compensatory mitigation for impacts authorized by Orders. In general, a mitigation bank sells  
974 compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is  
975 then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are  
976 governed by a mitigation banking instrument.
- 977 Mitigation banking instrument means the legal document for the establishment, operation, and use of  
978 an in-lieu fee program.
- 979 Off-site means an area that is neither located on the same parcel of land as the impact site, nor on a  
980 parcel of land contiguous to the parcel containing the impact site.
- 981 On-site means an area located on the same parcel of land as the impact site, or on a parcel of land  
982 contiguous to the impact site.
- 983 Out-of-kind means a resource of a different structural and functional type from the impacted resource.

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

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

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

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

998 Reference aquatic resources are a set of aquatic resources that represent the full range of variability  
999 exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic  
1000 disturbances.

1001 Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site  
1002 with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation  
1003 results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

1004 Restoration means the manipulation of the physical, chemical, or biological characteristics of a site  
1005 with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the  
1006 purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-  
1007 establishment and rehabilitation.

1008 Service area means the geographic area within which impacts can be mitigated at a specific  
1009 mitigation bank or an in-lieu fee program, as designated in its instrument.

1010 Services mean the benefits that human populations receive from functions that occur in ecosystems.

1011 Sponsor means any public or private entity responsible for establishing, and in most circumstances,  
1012 operating a mitigation bank or in-lieu fee program.

1013 Temporal loss is the time lag between the loss of aquatic resource functions caused by the permitted  
1014 impacts and the replacement of aquatic resource functions at the compensatory mitigation site.  
1015 Higher compensation ratios may be required to compensate for temporal loss. When the  
1016 compensatory mitigation project is initiated prior to, or concurrent with, the permitted impacts, the  
1017 permitting authority may determine that compensation for temporal loss is not necessary, unless the  
1018 resource has a long development time.

1019 Watershed means a land area that drains to a common waterway, such as a stream, lake, estuary,  
1020 wetland, or ultimately the ocean.

1021 Watershed approach is defined above in the main text of these Procedures.

1022 Watershed plan is defined above in the main text of these Procedures.

1023 § 230.93 General compensatory mitigation requirements.

1024 (a) General Considerations.



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

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

1046 (3) Compensatory mitigation projects may be sited on public or private lands. Credits for  
1047 compensatory mitigation projects on public land must be based solely on aquatic resource  
1048 functions provided by the compensatory mitigation project, over and above those provided by  
1049 public programs already planned or in place. All compensatory mitigation projects must comply  
1050 with the standards in section IV of these Procedures, if they are to be used to provide  
1051 compensatory mitigation for activities authorized by Orders, regardless of whether they are sited  
1052 on public or private lands and whether the sponsor is a governmental or private entity.

1053 (b) Type and location of compensatory mitigation.

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

1066 (2) Mitigation bank credits. When permitted impacts are located within the service area of an  
1067 approved mitigation bank, and the bank has the appropriate number and resource type of

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

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

1104 (4) Permittee-responsible mitigation under a watershed approach. Where permitted impacts  
1105 are not in the service area of an approved mitigation bank or in-lieu fee program that has the  
1106 appropriate number and resource type of credits available, permittee-responsible mitigation is  
1107 the only option. Where practicable and likely to be successful and sustainable, the resource  
1108 type and location for the required permittee-responsible compensatory mitigation should be  
1109 determined using the principles of a watershed approach as outlined in paragraph (c) of this  
1110 section.

1111 (5) Permittee-responsible mitigation through on-site and in-kind mitigation. In cases where a  
1112 watershed approach is not practicable, the permitting authority should consider opportunities to

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1113 offset anticipated aquatic resource impacts by requiring on-site and in-kind compensatory  
1114 mitigation. The permitting authority must also consider the practicability of on-site  
1115 compensatory mitigation and its compatibility with the proposed project.

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

1124 (c) Watershed approach to compensatory mitigation.

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

1136 (2) Considerations.

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

1152 (ii) Locational factors (e.g., hydrology, surrounding land use) are important to the success of  
1153 compensatory mitigation for impacted habitat functions and may lead to siting of such  
1154 mitigation away from the project area. However, consideration should also be given to

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1155 functions and services (e.g., water quality, flood control, shoreline protection) that will likely  
1156 need to be addressed at or near the areas impacted by the permitted impacts.

1157 (iii) A watershed approach may include on-site compensatory mitigation, off-site  
1158 compensatory mitigation (including mitigation banks or in-lieu fee programs), or a  
1159 combination of on-site and off-site compensatory mitigation.

1160 (iv) A watershed approach to compensatory mitigation should include, to the extent  
1161 practicable, inventories of historic and existing aquatic resources, including identification of  
1162 degraded aquatic resources, and identification of immediate and long-term aquatic resource  
1163 needs within watersheds that can be met through permittee-responsible mitigation projects,  
1164 mitigation banks, or in-lieu fee programs. Planning efforts should identify and prioritize  
1165 aquatic resource restoration, establishment, and enhancement activities, and preservation of  
1166 existing aquatic resources that are important for maintaining or improving ecological functions  
1167 of the watershed. The identification and prioritization of resource needs should be as specific  
1168 as possible, to enhance the usefulness of the approach in determining compensatory  
1169 mitigation requirements.

1170 (v) A watershed approach is not appropriate in areas where watershed boundaries do not  
1171 exist, such as marine areas. In such cases, an appropriate spatial scale should be used to  
1172 replace lost functions and services within the same ecological system (e.g., reef complex,  
1173 littoral drift cell).

## 1174 (3) Information Needs.

1175 (i) In the absence of a watershed plan determined by the permitting authority under  
1176 paragraph (c)(1) of this section to be appropriate for use in the watershed approach, the  
1177 permitting authority will use a watershed approach based on analysis of information  
1178 regarding watershed conditions (as identified in the watershed profile) and needs, including  
1179 potential sites for aquatic resource restoration activities and priorities for aquatic resource  
1180 restoration and preservation. Such information includes: Current trends in habitat loss or  
1181 conversion; cumulative impacts of past development activities, current development trends,  
1182 the presence and needs of sensitive species; site conditions that favor or hinder the success  
1183 of compensatory mitigation projects; and chronic environmental problems such as flooding or  
1184 poor water quality.

1185 (ii) This information may be available from sources such as wetland maps; soil surveys; U.S.  
1186 Geological Survey topographic and hydrologic maps; aerial photographs; information on rare,  
1187 endangered and threatened species and critical habitat; local ecological reports or studies;  
1188 and other information sources that could be used to identify locations for suitable  
1189 compensatory mitigation projects in the watershed.

1190 (iii) The level of information and analysis needed to support a watershed approach must be  
1191 commensurate with the scope and scale of the proposed impacts requiring an Order, as well  
1192 as the functions lost as a result of those impacts.

1193 (4) Watershed Scale. The size of watershed addressed using a watershed approach should not  
1194 be larger than is appropriate to ensure that the aquatic resources provided through

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1195 compensation activities will effectively compensate for adverse environmental impacts resulting  
1196 from activities authorized by Orders. The permitting authority should consider relevant  
1197 environmental factors and appropriate locally-developed standards and criteria when  
1198 determining the appropriate watershed scale in guiding compensation activities.

1199 (d) Site selection.

1200 (1) The compensatory mitigation project site must be ecologically suitable for providing the  
1201 desired aquatic resource functions. In determining the ecological suitability of the compensatory  
1202 mitigation project site, the permitting authority must consider, to the extent practicable, the  
1203 following factors:

1204 (i) Hydrological conditions, soil characteristics, and other physical and chemical  
1205 characteristics;

1206 (ii) Watershed-scale features, such as aquatic habitat diversity, habitat connectivity, and  
1207 other landscape scale functions;

1208 (iii) The size and location of the compensatory mitigation site relative to hydrologic sources  
1209 (including the availability of water rights) and other ecological features;

1210 (iv) Compatibility with adjacent land uses and watershed management plans;

1211 (v) Reasonably foreseeable effects the compensatory mitigation project will have on  
1212 ecologically important aquatic or terrestrial resources (e.g., shallow sub-tidal habitat, mature  
1213 forests), cultural sites, or habitat for federally- or state-listed threatened and endangered  
1214 species; and

1215 (vi) Other relevant factors including, but not limited to, development trends, anticipated land  
1216 use changes, habitat status and trends, the relative locations of the impact and mitigation  
1217 sites in the stream network, local or regional goals for the restoration or protection of  
1218 particular habitat types or functions (e.g., re-establishment of habitat corridors or habitat for  
1219 species of concern), water quality goals, floodplain management goals, and the relative  
1220 potential for chemical contamination of the aquatic resources.

1221 (2) Permitting authorities may require on-site, off-site, or a combination of on-site and off-site  
1222 compensatory mitigation to replace permitted losses of aquatic resource functions and services.

1223 (3) Applicants should propose compensation sites adjacent to existing aquatic resources or  
1224 where aquatic resources previously existed.

1225 (e) Mitigation type.

1226 (1) In general, in-kind mitigation is preferable to out-of-kind mitigation because it is most likely to  
1227 compensate for the functions and services lost at the impact site. For example, tidal wetland  
1228 compensatory mitigation projects are most likely to compensate for unavoidable impacts to tidal  
1229 wetlands, while perennial stream compensatory mitigation projects are most likely to



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1230 compensate for unavoidable impacts to perennial streams. Thus, except as provided in  
1231 paragraph (e)(2) of this section, the required compensatory mitigation shall be of a similar type  
1232 to the affected aquatic resource.

1233 (2) If the permitting authority determines, using the watershed approach in accordance with  
1234 paragraph (c) of this section that out-of-kind compensatory mitigation will serve the aquatic  
1235 resource needs of the watershed, the permitting authority may authorize the use of such out-of-  
1236 kind compensatory mitigation. The basis for authorization of out-of-kind compensatory  
1237 mitigation must be documented in the administrative record for the Order action.

1238 (3) For difficult-to-replace resources (e.g., bogs, fens, springs, streams, vegetated seasonal  
1239 wetlands, slope and seep wetlands, vernal pools, and wet meadows) if further avoidance and  
1240 minimization is not practicable, the required compensation should be provided, if practicable,  
1241 through in-kind rehabilitation, enhancement, or preservation since there is greater certainty that  
1242 these methods of compensation will successfully offset permitted impacts.

## 1243 (f) Amount of compensatory mitigation.

1244 (1) If the permitting authority determines that compensatory mitigation is necessary to offset  
1245 unavoidable impacts to aquatic resources, the amount of required compensatory mitigation  
1246 must be, to the extent practicable, sufficient to replace lost aquatic resource functions. In cases  
1247 where appropriate functional or condition assessment methods or other suitable metrics are  
1248 available, these methods should be used where practicable to determine how much  
1249 compensatory mitigation is required.

1250 (2) The permitting authority must require a mitigation ratio greater than one-to-one where  
1251 necessary to account for the method of compensatory mitigation (e.g., preservation), the  
1252 likelihood of success, differences between the functions lost at the impact site and the functions  
1253 expected to be produced by the compensatory mitigation project, temporal losses of aquatic  
1254 resource functions, the difficulty of restoring or establishing the desired aquatic resource type  
1255 and functions, and/or the distance between the affected aquatic resource and the compensation  
1256 site. The rationale for the required replacement ratio must be documented in the administrative  
1257 record for the Order action.

1258 (3) If an in-lieu fee program will be used to provide the required compensatory mitigation, and  
1259 the appropriate number and resource type of released credits are not available, the permitting  
1260 authority must require sufficient compensation to account for the risk and uncertainty associated  
1261 with in-lieu fee projects that have not been implemented before the permitted impacts have  
1262 occurred.

1263 (g) Use of mitigation banks and in-lieu fee programs. Mitigation banks and in-lieu fee programs  
1264 may be used to compensate for impacts to aquatic resources authorized by general Orders and  
1265 individual Orders in accordance with the preference hierarchy in paragraph (b) of this section.  
1266 Mitigation banks and in-lieu fee programs may also be used to satisfy requirements arising out of an  
1267 enforcement action, such as supplemental environmental projects.

## 1268 (h) Preservation.

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1269 (1) Preservation may be used to provide compensatory mitigation for activities authorized by  
1270 Orders when all the following criteria are met:

1271 (i) The resources to be preserved provide important physical, chemical, or biological  
1272 functions for the watershed;

1273 (ii) The resources to be preserved contribute significantly to the ecological sustainability of  
1274 the watershed. In determining the contribution of those resources to the ecological  
1275 sustainability of the watershed, the permitting authority must use appropriate quantitative  
1276 assessment tools where available;

1277 (iii) Preservation is determined by the permitting authority to be appropriate and practicable;

1278 (iv) The resources are under threat of destruction or adverse modifications; and

1279 (v) The preserved site will be permanently protected through an appropriate real estate or  
1280 other legal instrument (e.g., easement, title transfer to state resource agency or land trust).

1281 (2) Where preservation is used to provide compensatory mitigation, to the extent appropriate  
1282 and practicable the preservation shall be done in conjunction with aquatic resource restoration,  
1283 establishment, and/or enhancement activities. This requirement may be waived by the  
1284 permitting authority where preservation has been identified as a high priority using a watershed  
1285 approach described in paragraph (c) of this section, but compensation ratios shall be higher.

1286 (i) Buffers. The permitting authority may require the restoration, establishment,  
1287 enhancement, and preservation, as well as the maintenance, of riparian areas and/or buffers  
1288 around aquatic resources where necessary to ensure the long-term viability of those  
1289 resources. Buffers may also provide habitat or corridors necessary for the ecological  
1290 functioning of aquatic resources. If buffers are required by the permitting authority as part of  
1291 the compensatory mitigation project, compensatory mitigation credit will be provided for those  
1292 buffers, as provided in section IV B.5 (c).

1293 (j) Relationship to other federal, tribal, state, and local programs.

1294 (1) Compensatory mitigation projects for Orders may also be used to satisfy the environmental  
1295 requirements of other programs, such as tribal, state, or local wetlands regulatory programs,  
1296 other federal programs such as the Surface Mining Control and Reclamation Act, Corps civil  
1297 works projects, and Department of Defense military construction projects, consistent with the  
1298 terms and requirements of these programs and subject to the following considerations:

1299 (i) The compensatory mitigation project must include appropriate compensation required by  
1300 the Order for unavoidable impacts to aquatic resources authorized by that Order.

1301 (ii) Under no circumstances may the same credits be used to provide mitigation for more than  
1302 one permitted activity. However, where appropriate, compensatory mitigation projects,  
1303 including mitigation banks and in-lieu fee projects, may be designed to holistically address  
1304 requirements under multiple programs and authorities for the same activity.



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1305 (2) Except for projects undertaken by federal agencies, or where federal funding is specifically  
1306 authorized to provide compensatory mitigation, federally-funded aquatic resource restoration or  
1307 conservation projects undertaken for purposes other than compensatory mitigation, such as the  
1308 Wetlands Reserve Program, Conservation Reserve Program, and Partners for Wildlife Program  
1309 activities, cannot be used for the purpose of generating compensatory mitigation credits for  
1310 activities authorized by Orders. However, compensatory mitigation credits may be generated by  
1311 activities undertaken in conjunction with, but supplemental to, such programs in order to  
1312 maximize the overall ecological benefits of the restoration or conservation project.

1313 (3) Compensatory mitigation projects may also be used to provide compensatory mitigation  
1314 under the federal and state Endangered Species Act or for Natural Community Conservation  
1315 Plans and Habitat Conservation Plans, as long as they comply with the requirements of  
1316 paragraph (j)(1) of this section.

1317 (k) Order conditions.

1318 (1) The compensatory mitigation requirements for an Order, including the amount and type of  
1319 compensatory mitigation, must be clearly stated in the special conditions of the individual Order  
1320 or authorization to use the general Order. The special conditions must be enforceable.

1321 (2) For an Order that requires permittee-responsible mitigation, the special conditions must:

1322 (i) Identify the party responsible for providing the compensatory mitigation;

1323 (ii) Incorporate, by reference, the final or draft mitigation plan approved by the permitting  
1324 authority;

1325 (iii) State the objectives, performance standards, and monitoring required for the  
1326 compensatory mitigation project, unless they are provided in the approved final mitigation  
1327 plan; and

1328 (iv) Describe any required financial assurances or long-term management provisions for the  
1329 compensatory mitigation project, unless they are specified in the approved final mitigation  
1330 plan.

1331 (4) If a mitigation bank or in-lieu fee program is used to provide the required compensatory  
1332 mitigation, the special conditions must indicate whether a mitigation bank or in-lieu fee program  
1333 will be used, and specify the number and resource type of credits the permittee is required to  
1334 secure. In the case of an individual Order, the special condition must also identify the specific  
1335 mitigation bank or in-lieu fee program that will be used. For authorizations to use a general  
1336 Order, the special conditions may either identify the specific mitigation bank or in-lieu fee  
1337 program, or state that the specific mitigation bank or in-lieu fee program used to provide the  
1338 required compensatory mitigation must be approved by the permitting authority before the  
1339 credits are secured.

1340 (l) Party responsible for compensatory mitigation.

# Procedures for Discharges of Dredged or Fill Material to Waters of the State

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1341 (1) For permittee-responsible mitigation, the special conditions of the Order must clearly  
1342 indicate the party or parties responsible for the implementation, performance, and long-term  
1343 management of the compensatory mitigation project.

1344 (3) If use of a mitigation bank or in-lieu fee program is approved by the permitting authority to  
1345 provide part or all of the required compensatory mitigation for an Order, the permittee retains  
1346 responsibility for providing the compensatory mitigation until the appropriate number and  
1347 resource type of credits have been secured from a sponsor and the permitting authority has  
1348 received documentation that confirms that the sponsor has accepted the responsibility for  
1349 providing the required compensatory mitigation. This documentation may consist of a letter or  
1350 form signed by the sponsor, with the Order number and a statement indicating the number and  
1351 resource type of credits that have been secured from the sponsor. Copies of this  
1352 documentation will be retained in the administrative records for both the Order and the  
1353 instrument. If the sponsor fails to provide the required compensatory mitigation, the permitting  
1354 authority may pursue measures against the sponsor to ensure compliance.

1355 (m) Timing. Implementation of the compensatory mitigation project shall be, to the maximum extent  
1356 practicable, in advance of or concurrent with the activity causing the authorized impacts. The  
1357 permitting authority shall require, to the extent appropriate and practicable, additional compensatory  
1358 mitigation to offset temporal losses of aquatic functions that will result from the permitted activity.

1359 (n) Financial assurances.

1360 (1) The permitting authority shall require sufficient financial assurances to ensure a high level of  
1361 confidence that the compensatory mitigation project will be successfully completed, in  
1362 accordance with applicable performance standards. In cases where an alternate mechanism is  
1363 available to ensure a high level of confidence that the compensatory mitigation will be provided  
1364 and maintained (e.g., a formal, documented commitment from a government agency or public  
1365 authority) the permitting authority may determine that financial assurances are not necessary for  
1366 that compensatory mitigation project.

1367 (2) The amount of the required financial assurances must be determined by the permitting  
1368 authority, in consultation with the project sponsor, and must be based on the size and  
1369 complexity of the compensatory mitigation project, the degree of completion of the project at the  
1370 time of project approval, the likelihood of success, the past performance of the project sponsor,  
1371 and any other factors the permitting authority deems appropriate. Financial assurances may be  
1372 in the form of performance bonds, escrow accounts, casualty insurance, letters of credit,  
1373 legislative appropriations for government sponsored projects, or other appropriate instruments,  
1374 subject to the approval of the permitting authority. The rationale for determining the amount of  
1375 the required financial assurances must be documented in the administrative record for either the  
1376 Order or the instrument. In determining the assurance amount, the permitting authority shall  
1377 consider the cost of providing replacement mitigation, including costs for land acquisition,  
1378 planning and engineering, legal fees, mobilization, construction, and monitoring.

1379 (3) If financial assurances are required, the Order must include a special condition requiring the  
1380 financial assurances to be in place prior to commencing the permitted activity.

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1381 (4) Financial assurances shall be phased out once the compensatory mitigation project has  
1382 been determined by the permitting authority to be successful in accordance with its performance  
1383 standards. The Order or instrument must clearly specify the conditions under which the  
1384 financial assurances are to be released to the permittee, sponsor, and/or other financial  
1385 assurance provider, including, as appropriate, linkage to achievement of performance  
1386 standards, adaptive management, or compliance with special conditions.

1387 (5) A financial assurance must be in a form that ensures that the permitting authority will receive  
1388 notification at least 120 days in advance of any termination or revocation. For third-party  
1389 assurance providers, this may take the form of a contractual requirement for the assurance  
1390 provider to notify the permitting authority at least 120 days before the assurance is revoked or  
1391 terminated.

1392 (6) Financial assurances shall be payable at the direction of the permitting authority to his  
1393 designee or to a standby trust agreement. When a standby trust is used (e.g., with performance  
1394 bonds or letters of credit) all amounts paid by the financial assurance provider shall be  
1395 deposited directly into the standby trust fund for distribution by the trustee in accordance with  
1396 the permitting authority's instructions.

1397 (o) Compliance with applicable law. The compensatory mitigation project must comply with all  
1398 applicable federal, state, and local laws. The Order, mitigation banking instrument, or in-lieu fee  
1399 program instrument must not require participation by the permitting authority in project  
1400 management, including receipt or management of financial assurances or long-term financing  
1401 mechanisms, except as determined by the permitting authority to be consistent with its statutory  
1402 authority, mission, and priorities.

## 1403 § 230.94 Planning and documentation.

1404 (a) Pre-application consultations. Potential applicants for Orders are encouraged to participate in  
1405 pre-application meetings with the permitting authority and appropriate agencies to discuss potential  
1406 mitigation requirements and information needs.

1407 (c) Mitigation plan.

1408 (1) Preparation and Approval.

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

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1424 (2) Objectives. A description of the resource type(s) and amount(s) that will be provided, the  
1425 method of compensation (i.e., restoration, establishment, enhancement, and/or preservation),  
1426 and the manner in which the resource functions of the compensatory mitigation project will  
1427 address the needs of the watershed, ecoregion, physiographic province, or other geographic  
1428 area of interest.

1429 (3) Site selection. A description of the factors considered during the site selection process.  
1430 This should include consideration of watershed needs, on-site alternatives where applicable,  
1431 and the practicability of accomplishing ecologically self-sustaining aquatic resource restoration,  
1432 establishment, enhancement, and/or preservation at the compensatory mitigation project site.  
1433 (See [§ 230.93\(d\)](#).)

1434 (4) Site protection instrument. A description of the legal arrangements and instrument, including  
1435 site ownership, that will be used to ensure the long-term protection of the compensatory  
1436 mitigation project site (see [§ 230.97\(a\)](#)).

1437 (5) Baseline information. A description of the ecological characteristics of the proposed  
1438 compensatory mitigation project site and, in the case of an application for an Order, the impact  
1439 site. This may include descriptions of historic and existing plant communities, historic and  
1440 existing hydrology, soil conditions, a map showing the locations of the impact and mitigation  
1441 site(s) or the geographic coordinates for those site(s), and other site characteristics appropriate  
1442 to the type of resource proposed as compensation. The baseline information should also  
1443 include a delineation of waters of the state on the proposed compensatory mitigation project  
1444 site. A prospective permittee planning to secure credits from an approved mitigation bank or in-  
1445 lieu fee program only needs to provide baseline information about the impact site, not the  
1446 mitigation bank or in-lieu fee project site.

1447 (6) Determination of credits. A description of the number of credits to be provided, including a  
1448 brief explanation of the rationale for this determination. (See [§ 230.93\(f\)](#).)

1449 (i) For permittee-responsible mitigation, this should include an explanation of how the  
1450 compensatory mitigation project will provide the required compensation for unavoidable  
1451 impacts to aquatic resources resulting from the permitted activity.

1452 (ii) For permittees intending to secure credits from an approved mitigation bank or in-lieu fee  
1453 program, it should include the number and resource type of credits to be secured and how  
1454 these were determined.

1455 (7) Mitigation work plan. Detailed written specifications and work descriptions for the  
1456 compensatory mitigation project, including, but not limited to, the geographic boundaries of the  
1457 project; construction methods, timing, and sequence; source(s) of water, including connections  
1458 to existing waters and uplands; methods for establishing the desired plant community; plans to  
1459 control invasive plant species; the proposed grading plan, including elevations and slopes of the  
1460 substrate; soil management; and erosion control measures. For stream compensatory  
1461 mitigation projects, the mitigation work plan may also include other relevant information, such as  
1462 planform geometry, channel form (e.g., typical channel cross-sections), watershed size, design  
1463 discharge, and riparian area plantings.

1464 (8) Maintenance plan. A description and schedule of maintenance requirements to ensure the  
1465 continued viability of the resource once initial construction is completed.

1466 (9) Performance standards. Ecologically-based standards that will be used to determine  
1467 whether the compensatory mitigation project is achieving its objectives. (See [§ 230.95](#).)

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1468 (10) Monitoring requirements. A description of parameters to be monitored in order to  
1469 determine if the compensatory mitigation project is on track to meet performance standards and  
1470 if adaptive management is needed. A schedule for monitoring and reporting on monitoring  
1471 results to the permitting authority must be included. (See [§ 230.96](#).)

1472 (11) Long-term management plan. A description of how the compensatory mitigation project will  
1473 be managed after performance standards have been achieved to ensure the long-term  
1474 sustainability of the resource, including long-term financing mechanisms and the party  
1475 responsible for long-term management. (See [§ 230.97\(d\)](#).)

1476 (12) Adaptive management plan. A management strategy to address unforeseen changes in  
1477 site conditions or other components of the compensatory mitigation project, including the party  
1478 or parties responsible for implementing adaptive management measures. The adaptive  
1479 management plan will guide decisions for revising compensatory mitigation plans and  
1480 implementing measures to address both foreseeable and unforeseen circumstances that  
1481 adversely affect compensatory mitigation success. (See [§ 230.97\(c\)](#).)

1482 (13) Financial assurances. A description of financial assurances that will be provided and how  
1483 they are sufficient to ensure a high level of confidence that the compensatory mitigation project  
1484 will be successfully completed, in accordance with its performance standards (see [§ 230.93\(n\)](#)).

1485 (14) Other information. The permitting authority may require additional information as  
1486 necessary to determine the appropriateness, feasibility, and practicability of the compensatory  
1487 mitigation project.

## 1488 § 230.95 Ecological performance standards.

1489 (a) The approved mitigation plan must contain performance standards that will be used to assess  
1490 whether the project is achieving its objectives. Performance standards should relate to the  
1491 objectives of the compensatory mitigation project, so that the project can be objectively evaluated to  
1492 determine if it is developing into the desired resource type, providing the expected condition or  
1493 functions, and attaining any other applicable metrics (e.g., acres).

1494 (b) Performance standards must be based on attributes that are objective and verifiable. Ecological  
1495 performance standards must be based on the best available science that can be measured or  
1496 assessed in a practicable manner. Performance standards may be based on variables or  
1497 measures of functional capacity or condition as described in assessment methodologies,  
1498 measurements of hydrology or other aquatic resource characteristics, and/or comparisons to  
1499 reference aquatic resources of similar type and landscape position. The use of reference aquatic  
1500 resources to establish performance standards will help ensure that those performance standards  
1501 are reasonably achievable, by reflecting the range of variability exhibited by the regional class of  
1502 aquatic resources as a result of natural processes and anthropogenic disturbances. Performance  
1503 standards based on measurements of hydrology should take into consideration the hydrologic  
1504 variability exhibited by reference aquatic resources, especially wetlands. Where practicable,  
1505 performance standards should take into account the expected stages of the aquatic resource  
1506 development process, in order to allow early identification of potential problems and appropriate  
1507 adaptive management.

## 1508 § 230.96 Monitoring.

### 1509 (a) General.

1510 (1) Monitoring the compensatory mitigation project site is necessary to determine if the project is  
1511 meeting its performance standards, and to determine if measures are necessary to ensure that



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1512 the compensatory mitigation project is accomplishing its objectives. The submission of  
1513 monitoring reports to assess the development and condition of the compensatory mitigation  
1514 project is required, but the content and level of detail for those monitoring reports must be  
1515 commensurate with the scale and scope of the compensatory mitigation project, as well as the  
1516 compensatory mitigation project type. The mitigation plan must address the monitoring  
1517 requirements for the compensatory mitigation project, including the parameters to be monitored,  
1518 the length of the monitoring period, the party responsible for conducting the monitoring, the  
1519 frequency for submitting monitoring reports to the permitting authority, and the party responsible  
1520 for submitting those monitoring reports to the permitting authority.

1521 (2) The permitting authority may conduct site inspections on a regular basis (e.g., annually)  
1522 during the monitoring period to evaluate mitigation site performance.

1523 (b) Monitoring period. The mitigation plan must provide for a monitoring period that is sufficient to  
1524 demonstrate that the compensatory mitigation project has met performance standards, but not less  
1525 than five years. A longer monitoring period must be required for aquatic resources with slow  
1526 development rates (e.g., forested wetlands, bogs). Following project implementation, the permitting  
1527 authority may reduce or waive the remaining monitoring requirements upon a determination that the  
1528 compensatory mitigation project has achieved its performance standards. Conversely the  
1529 permitting authority may extend the original monitoring period upon a determination that  
1530 performance standards have not been met or the compensatory mitigation project is not on track to  
1531 meet them. The permitting authority may also revise monitoring requirements when remediation  
1532 and/or adaptive management is required.

1533 (c) Monitoring reports.

1534 (1) The permitting authority must determine the information to be included in monitoring reports.  
1535 This information must be sufficient for the permitting authority to determine how the  
1536 compensatory mitigation project is progressing towards meeting its performance standards, and  
1537 may include plans (such as as-built plans), maps, and photographs to illustrate site conditions.  
1538 Monitoring reports may also include the results of functional, condition, or other assessments  
1539 used to provide quantitative or qualitative measures of the functions provided by the  
1540 compensatory mitigation project site.

1541 (2) The permittee or sponsor is responsible for submitting monitoring reports in accordance with  
1542 the special conditions of the Order or the terms of the instrument. Failure to submit monitoring  
1543 reports in a timely manner may result in compliance action by the permitting authority.

1544 (3) Monitoring reports must be provided by the permitting authority to interested federal, tribal,  
1545 state, and local resource agencies, and the public, upon request.

1546 § 230.97 Management.

1547 (a) Site protection.

1548 (1) The aquatic habitats, riparian areas, buffers, and uplands that comprise the overall  
1549 compensatory mitigation project must be provided long-term protection through real estate  
1550 instruments or other available mechanisms, as appropriate. Long-term protection may be  
1551 provided through real estate instruments such as conservation easements held by entities such  
1552 as federal, tribal, state, or local resource agencies, non-profit conservation organizations, or  
1553 private land managers; the transfer of title to such entities; or by restrictive covenants. For  
1554 government property, long-term protection may be provided through state or federal facility  
1555 management plans or integrated natural resources management plans. When approving a  
1556 method for long-term protection of non-government property other than transfer of title, the



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1557 permitting authority shall consider relevant legal constraints on the use of conservation  
1558 easements and/or restrictive covenants in determining whether such mechanisms provide  
1559 sufficient site protection. To provide sufficient site protection, a conservation easement or  
1560 restrictive covenant should, where practicable, establish in an appropriate third party (e.g.,  
1561 governmental or non-profit resource management agency) the right to enforce site protections  
1562 and provide the third party the resources necessary to monitor and enforce these site  
1563 protections.

1564 (2) The real estate instrument, management plan, or other mechanism providing long-term  
1565 protection of the compensatory mitigation site must, to the extent appropriate and practicable,  
1566 prohibit incompatible uses (e.g., clear cutting or mineral extraction) that might otherwise  
1567 jeopardize the objectives of the compensatory mitigation project. Where appropriate, multiple  
1568 instruments recognizing compatible uses (e.g., fishing or grazing rights) may be used.

1569 (3) The real estate instrument, management plan, or other long-term protection mechanism  
1570 must contain a provision requiring 60-day advance notification to the permitting authority before  
1571 any action is taken to void or modify the instrument, management plan, or long-term protection  
1572 mechanism, including transfer of title to, or establishment of any other legal claims over, the  
1573 compensatory mitigation site.

1574 (4) For compensatory mitigation projects on public lands, where state or Federal facility  
1575 management plans or integrated natural resources management plans are used to provide long-  
1576 term protection, and changes in statute, regulation, or agency needs or mission results in an  
1577 incompatible use on public lands originally set aside for compensatory mitigation, the public  
1578 agency authorizing the incompatible use is responsible for providing alternative compensatory  
1579 mitigation that is acceptable to the permitting authority for any loss in functions resulting from  
1580 the incompatible use.

1581 (5) A real estate instrument, management plan, or other long-term protection mechanism used  
1582 for site protection of permittee-responsible mitigation must be approved by the permitting  
1583 authority in advance of, or concurrent with, the activity causing the authorized impacts.

1584 (b) Sustainability. Compensatory mitigation projects shall be designed, to the maximum extent  
1585 practicable, to be self-sustaining once performance standards have been achieved. This includes  
1586 minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that  
1587 natural hydrology and landscape context will support long-term sustainability. Where active long-  
1588 term management and maintenance are necessary to ensure long-term sustainability (e.g.,  
1589 prescribed burning, invasive species control, maintenance of water control structures, easement  
1590 enforcement), the responsible party must provide for such management and maintenance. This  
1591 includes the provision of long-term financing mechanisms where necessary. Where needed, the  
1592 acquisition and protection of water rights must be secured and documented in the Order conditions  
1593 or instrument.

1594 (c) Adaptive management.

1595 (1) If the compensatory mitigation project cannot be constructed in accordance with the  
1596 approved mitigation plans, the permittee or sponsor must notify the permitting authority. A  
1597 significant modification of the compensatory mitigation project requires approval from the  
1598 permitting authority.

1599 (2) If monitoring or other information indicates that the compensatory mitigation project is not  
1600 progressing towards meeting its performance standards as anticipated, the responsible party  
1601 must notify the permitting authority as soon as possible. The permitting authority will evaluate

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1602 and pursue measures to address deficiencies in the compensatory mitigation project. The  
1603 permitting authority will consider whether the compensatory mitigation project is providing  
1604 ecological benefits comparable to the original objectives of the compensatory mitigation project.

1605 (3) The permitting authority, in consultation with the responsible party (and other federal, tribal,  
1606 state, and local agencies, as appropriate), will determine the appropriate measures. The  
1607 measures may include site modifications, design changes, revisions to maintenance  
1608 requirements, and revised monitoring requirements. The measures must be designed to ensure  
1609 that the modified compensatory mitigation project provides aquatic resource functions  
1610 comparable to those described in the mitigation plan objectives.

1611 (4) Performance standards may be revised in accordance with adaptive management to  
1612 account for measures taken to address deficiencies in the compensatory mitigation project.  
1613 Performance standards may also be revised to reflect changes in management strategies and  
1614 objectives if the new standards provide for ecological benefits that are comparable or superior to  
1615 the approved compensatory mitigation project. No other revisions to performance standards will  
1616 be allowed except in the case of natural disasters.

1617 (d) Long-term management.

1618 (1) The Order conditions or instrument must identify the party responsible for ownership and all  
1619 long-term management of the compensatory mitigation project. The Order conditions or  
1620 instrument may contain provisions allowing the permittee or sponsor to transfer the long-term  
1621 management responsibilities of the compensatory mitigation project site to a land stewardship  
1622 entity, such as a public agency, non-governmental organization, or private land manager, after  
1623 review and approval by the permitting authority. The land stewardship entity need not be  
1624 identified in the original Order or instrument, as long as the future transfer of long-term  
1625 management responsibility is approved by the permitting authority.

1626 (2) A long-term management plan should include a description of long-term management  
1627 needs, annual cost estimates for these needs, and identify the funding mechanism that will be  
1628 used to meet those needs.

1629 (3) Any provisions necessary for long-term financing must be addressed in the original Order or  
1630 instrument. The permitting authority may require provisions to address inflationary adjustments  
1631 and other contingencies, as appropriate. Appropriate long-term financing mechanisms include  
1632 non-wasting endowments, trusts, contractual arrangements with future responsible parties, and  
1633 other appropriate financial instruments. In cases where the long-term management entity is a  
1634 public authority or government agency, that entity must provide a plan for the long-term  
1635 financing of the site.

1636 (4) For permittee-responsible mitigation, any long-term financing mechanisms must be  
1637 approved in advance of the activity causing the authorized impacts.