

DRAFT

Regulatory Requirements to Demonstrate Consistency with Regulatory Policies and New Definitions

APPENDIX 3A: ER PA (23 CCR Section [TBD])

APPENDIX 4A: ER P2 (23 CCR Section 5006)

**DEFINITIONS: New proposed definitions related to
Appendix 3A and 4A (23 CCR Section 5001)**

Delta Plan Amendments

May 2020

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Appendix 3A. Disclosing Contributions to Restoring Ecosystem Function and Providing Social Benefits (23 CCR [TBD])

A certification of consistency for any covered action that is subject to New Ecosystem Restoration (ER) Policy “A” must include a completed Appendix 3A, as well as the documentation and information required by Appendix 3A.

Section 1. Priority Attributes and Ecosystem Tier

Priority Attributes

Appendix 3A, Section 1, Subsections 1.1 through 1.5 (Priority Attributes) require the selection of criteria and the disclosure of supporting information to identify whether the covered action would have any of the following five priority attributes (a covered action may have more than one priority attribute):

- 1.1 Restoring Hydrological, Geomorphic, and Biological Processes
- 1.2 Being Large-Scale
- 1.3 Improving Connectivity
- 1.4 Increasing Native Vegetation Cover
- 1.5 Contributing to the Recovery of Special-Status Species

Appendix 3A, Section 1, Subsection 1.6 (Ecosystem Restoration Tier) requires the identification of the appropriate Ecosystem Restoration Tier for the covered action, based on the selections in Subsections 1.1 through 1.5 of Section 1.

Restoring Hydrological, Geomorphic, and Biological Processes

- 1.1.1 In **Field 1** of **Table 1-1** below, select the ecosystem type(s) that the covered action proposes to restore, if any. Select all that apply.
- 1.1.2 In **Field 2** of **Table 1-1** below, select the corresponding hydrological, geomorphic, and/or biological process(es) that the covered action proposes to restore, if any. Select all that apply.

Table 1-1. Priority Attribute 1 – Restoring Hydrological, Geomorphic, and Biological Processes Selections

| Row Number | Field 1. Ecosystem Type | Field 2. Hydrological, Geomorphic, and Biological Processes |
|------------|---|---|
| 1 | <input type="checkbox"/> Tidal wetland | <input type="checkbox"/> Full tidal action and complex variable patterns of tidal inundation <input type="checkbox"/> Sediment delivery, scour, and accretion <input type="checkbox"/> Channel formation <input type="checkbox"/> Delivery of organic and nonorganic compounds which support nutrient cycling, primary productivity, plant growth, and peat formation <input type="checkbox"/> Native vegetation recruitment, growth and succession, primary production, and higher trophic-level interactions |
| 2 | <input type="checkbox"/> Nontidal wetland | <input type="checkbox"/> Temporary or permanent inundation through natural hydrologic connections to surface and/or groundwater, but does not include managed wetlands <input type="checkbox"/> Hydric soil development through organic matter accumulation and/or terrestrial sediment delivery <input type="checkbox"/> Delivery of organic and nonorganic compounds which support nutrient cycling, primary productivity, plant growth, and peat formation <input type="checkbox"/> Native vegetation recruitment, growth, succession, primary production, and higher trophic-level interactions |
| 3 | <input type="checkbox"/> Willow thicket | <input type="checkbox"/> Temporary or seasonal floodplain inundation <input type="checkbox"/> Floodplain sediment delivery, scour, and accretion which results in complex floodplain micro-topography <input type="checkbox"/> Unrestrained (natural) stream channels which allow cut-bank and point-bar formation, meander migration, and the development of shaded riverine aquatic habitats <input type="checkbox"/> Delivery of organic and nonorganic compounds which support nutrient cycling, primary productivity, plant growth, and floodplain soils <input type="checkbox"/> Native vegetation recruitment, growth, succession, primary production, and higher trophic-level interactions |
| 4 | <input type="checkbox"/> Willow riparian scrub or shrub | <input type="checkbox"/> Temporary or seasonal floodplain inundation <input type="checkbox"/> Floodplain sediment delivery, scour, and accretion which results in complex floodplain micro-topography <input type="checkbox"/> Unrestrained (natural) stream channels which allow cut-bank and point-bar formation, meander migration, and the development of shaded riverine aquatic habitats <input type="checkbox"/> Delivery of organic and nonorganic compounds which support nutrient cycling, primary productivity, plant growth, and floodplain soils <input type="checkbox"/> Native vegetation recruitment, growth, succession, primary production, and higher trophic-level interactions |

Table 1-1. Priority Attribute 1 – Restoring Hydrological, Geomorphic, and Biological Processes Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Hydrological, Geomorphic, and Biological Processes |
|------------|--|---|
| 5 | <input type="checkbox"/> Valley foothill riparian | <input type="checkbox"/> Temporary or seasonal floodplain inundation <input type="checkbox"/> Floodplain sediment delivery, scour, and accretion which results in complex floodplain micro-topography <input type="checkbox"/> Unrestrained (natural) stream channels which allow cut-bank and point-bar formation, meander migration, and the development of shaded riverine aquatic habitats <input type="checkbox"/> Delivery of organic and nonorganic compounds which support nutrient cycling, primary productivity, plant growth, and floodplain soils <input type="checkbox"/> Native vegetation recruitment, growth, succession, primary production, and higher trophic-level interactions |
| 6 | <input type="checkbox"/> Vernal pool complex | <input type="checkbox"/> Water inputs from precipitation, runoff, groundwater or subsurface flow that cause temporary inundation and saturation with water <input type="checkbox"/> Morphology (surface area, volume, depth, depth to hardpan) which supports hydrology, chemical processes, and native species colonization and persistence <input type="checkbox"/> Hydrology and hydrogeomorphic setting that supports appropriate wetland soil development <input type="checkbox"/> Native vegetation recruitment, growth, succession, primary production, higher trophic-level interactions, and appropriate pool substrates |
| 7 | <input type="checkbox"/> Alkali seasonal wetland complex | <input type="checkbox"/> Water inputs from precipitation, runoff, groundwater or subsurface flow that cause temporary inundation and saturation with water <input type="checkbox"/> Morphology (surface area, volume, depth, depth to hardpan) which supports hydrology, chemical processes, and native species colonization and persistence <input type="checkbox"/> Hydrology and hydrogeomorphic setting that supports appropriate wetland soil development <input type="checkbox"/> Native vegetation recruitment, growth, succession, primary production, higher trophic-level interactions, and appropriate pool substrates |

Table 1-1. Priority Attribute 1 – Restoring Hydrological, Geomorphic, and Biological Processes Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Hydrological, Geomorphic, and Biological Processes |
|------------|--|--|
| 8 | <input type="checkbox"/> Wet meadow | <input type="checkbox"/> Water inputs from precipitation, runoff, groundwater or subsurface flow that cause temporary inundation and saturation with water <input type="checkbox"/> Morphology (surface area, volume, depth, depth to hardpan) which supports hydrology, chemical processes, and native species colonization and persistence <input type="checkbox"/> Hydrology and hydrogeomorphic setting that supports appropriate wetland soil development <input type="checkbox"/> Native vegetation recruitment, growth, succession, primary production, higher trophic-level interactions, and appropriate pool substrates |
| 9 | <input type="checkbox"/> Stabilized interior dune vegetation | <input type="checkbox"/> Readily draining substrates <input type="checkbox"/> Wind-driven geomorphic processes <input type="checkbox"/> Movement, scour, and deposition which supports recruitment, growth, and succession of native dune scrub vegetation communities |
| 10 | <input type="checkbox"/> Oak woodland | <input type="checkbox"/> Fire disturbance or fire disturbance analogue (e.g., grazing) which maintains vegetation dynamics conducive to oak recruitment and other vegetation dynamics |
| 11 | <input type="checkbox"/> Grassland | <input type="checkbox"/> Fire disturbance or fire disturbance analogue (e.g., grazing) which maintains vegetation dynamics conducive to oak recruitment and other vegetation dynamics |

1.1.3 In **Table 1-1**, above, each row in **Field 1** lists an ecosystem type, and in the same row in **Field 2** are the corresponding hydrological, geomorphic, and biological processes that a covered action could restore.

Based on the ecosystem type(s) selected in **Field 1**, would the proposed action restore any corresponding hydrological, geomorphic, and biological processes in **Field 2**?

- Yes
- No (continue to Section 1.2)

1.1.4 If the answer to **Section 1.1.3** is “Yes,” describe how the proposed action would restore the selected hydrological, geomorphic, and biological process(es) selected in **Table 1-1** above, and attach supporting documentation.

Being Large-Scale

1.2.1 In **Field 1** of **Table 1-2** below, select the ecosystem type(s) that the covered action proposes to restore. Select all that apply.

1.2.2 In **Field 2** of **Table 1-2** below, select the corresponding area where the covered action proposes to restore hydrological, geomorphic, and biological processes. For every row that is selected in **Field 1**, make a corresponding selection in **Field 2**.

Table 1-2. Priority Attribute 2 – Being Large-Scale Selections

| Row Number | Field 1. Ecosystem Type | Field 2. Proposed Restored Area |
|------------|---|--|
| 1 | <input type="checkbox"/> Tidal wetland | <input type="checkbox"/> > or = 500 acres (large-scale) <input type="checkbox"/> < 500 acres |
| 2 | <input type="checkbox"/> Nontidal wetland (including managed wetland) | <input type="checkbox"/> > or = 500 acres (large-scale) <input type="checkbox"/> < 500 acres |
| 3 | <input type="checkbox"/> Willow thicket | <input type="checkbox"/> > or = 200 acres (large-scale) <input type="checkbox"/> < 200 acres <input type="checkbox"/> Floodplain ratio ¹ > or = 6 (large-scale) <i>refer to table notes for methodology</i> <input type="checkbox"/> Floodplain ratio ¹ < 6 |
| 4 | <input type="checkbox"/> Willow riparian scrub or shrub | <input type="checkbox"/> > or = 200 acres (large-scale) <input type="checkbox"/> < 200 acres <input type="checkbox"/> Floodplain ratio ¹ > or = 6 (large-scale) <i>refer to table notes for methodology</i> <input type="checkbox"/> Floodplain ratio ¹ < 6 |
| 5 | <input type="checkbox"/> Valley foothill riparian | <input type="checkbox"/> > or = 200 acres (large-scale) <input type="checkbox"/> < 200 acres <input type="checkbox"/> Floodplain ratio ¹ > or = 6 (large-scale) <i>refer to table notes for methodology</i> <input type="checkbox"/> Floodplain ratio ¹ < 6 |
| 6 | <input type="checkbox"/> Vernal pool complex | <input type="checkbox"/> > or = 40 acres (large-scale) <input type="checkbox"/> < 40 acres |
| 7 | <input type="checkbox"/> Alkali seasonal wetland complex | <input type="checkbox"/> > or = 40 acres (large-scale) <input type="checkbox"/> < 40 acres |
| 8 | <input type="checkbox"/> Wet meadow | <input type="checkbox"/> > or = 40 acres (large-scale) <input type="checkbox"/> < 40 acres |
| 9 | <input type="checkbox"/> Stabilized interior dune vegetation | <input type="checkbox"/> > or = 1.5 acres (large-scale) <input type="checkbox"/> < 1.5 acres |

Table 1-2. Priority Attribute 2 – Being Large-Scale Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Proposed Restored Area |
|------------|---------------------------------------|---|
| 10 | <input type="checkbox"/> Oak woodland | <input type="checkbox"/> > or = 40 acres (large-scale) <input type="checkbox"/> < 40 acres |
| 11 | <input type="checkbox"/> Grassland | <input type="checkbox"/> > or = 40 acres (large-scale) <input type="checkbox"/> < 40 acres |

Notes:

¹ Method to calculate the floodplain ratio

- a. Existing bankfull channel width (use the mean of at least six cross sections): _____ meters
- b. Protected, restored, or enhanced floodplain width: _____ meters
- c. Floodplain ratio (divide [b] by [a])

1.2.3 In **Table 1-2**, above, each row in **Field 1** lists an ecosystem type(s), and the corresponding row in **Field 2** lists the restoration area that would be considered large-scale.

Based on the selection(s) made in **Field 2**, would any selected restoration area for the covered action be large-scale?

- Yes
- No (continue to Section 1.3)

1.2.4 If the answer to **Section 1.2.3** is “Yes,” describe the area of each ecosystem type that the covered action proposes to restore, corresponding to the selections in **Table 1-2** above, and attach supporting documentation.

Improving Connectivity

1.3.1 In **Field 1** of **Table 1-3** below, select the aspect(s) of connectivity that the covered action proposes to improve. Select all that apply.

Table 1-3. Priority Attribute 3 – Improving Connectivity Selections

| Row Number | Field 1. Aspects of Connectivity |
|------------|---|
| 1 | <input type="checkbox"/> Creates or reestablishes hydraulic and hydrologic connections to marsh or floodplain ecosystems |
| 2 | <input type="checkbox"/> Reduces distance between patches of similar ecosystem types |
| 3 | <input type="checkbox"/> Reduces distance between patches of different ecosystem types used by species for refuge or life history needs |
| 4 | <input type="checkbox"/> Protects, restores, or enhances wetland and riparian transgression/migration space |
| 5 | <input type="checkbox"/> Removes or remediates barriers (dams and diversions) to fish migration |

1.3.2 Selecting at least one Aspect of Connectivity in **Table 1-3** above indicates that the proposed action would improve connectivity. Based on the selection(s) in **Table 1-3**, would the covered action improve connectivity?

- Yes
- No (continue to Section 1.4)

1.3.3 If the answer to **Section 1.3.2** is “Yes,” describe how the covered action would improve the aspect(s) of connectivity selected in **Field 1** of **Table 1-3** above, and attach supporting documentation.

Increasing Native Vegetation Cover

1.4.1 In **Field 1** of **Table 1-4** below, select the ecosystem type(s) that the covered action proposes to restore. Select all that apply.

1.4.2 In **Field 2** of **Table 1-4** below, select the corresponding native vegetation community or communities for which the covered action would increase cover. Select all that apply.

Table 1-4. Priority Attribute 4 – Increasing Native Vegetation Cover Selections

| Row Number | Field 1. Ecosystem Type | Field 2. Native Vegetation Community (VegCAMP CaCode) |
|------------|---|---|
| 1 | <input type="checkbox"/> Tidal wetland | <input type="checkbox"/> <i>Schoenoplectus (acutus, californicus)</i> Alliance (52.128.00) <input type="checkbox"/> <i>Typha (domingensis, latifolia)</i> Alliance (52.050.00) <input type="checkbox"/> <i>Juncus effuses</i> (soft rush marshes) Alliance (45.561.00) <input type="checkbox"/> <i>Juncus articus</i> (Baltic and Mexican rush marshes) Alliance (45.562.00) <input type="checkbox"/> <i>Eleocharis macrostachya</i> Alliance (45.230.00) <input type="checkbox"/> <i>Sarcocornia pacifica</i> Alliance (52.215.00) <input type="checkbox"/> <i>Distichlis spicata</i> Alliance (41.200.00) <input type="checkbox"/> Other |
| 2 | <input type="checkbox"/> Nontidal wetland (including managed wetland) | <input type="checkbox"/> <i>Schoenoplectus (acutus, californicus)</i> Alliance (52.128.00) <input type="checkbox"/> <i>Typha (domingensis, latifolia)</i> Alliance (52.050.00) <input type="checkbox"/> <i>Juncus effuses</i> (soft rush marshes) Alliance (45.561.00) <input type="checkbox"/> <i>Juncus articus</i> (Baltic and Mexican rush marshes) Alliance (45.562.00) <input type="checkbox"/> <i>Eleocharis macrostachya</i> Alliance (45.230.00) <input type="checkbox"/> Other |
| 3 | <input type="checkbox"/> Willow thicket | <input type="checkbox"/> <i>Salix gooddingii</i> Alliance (61.211.00) <input type="checkbox"/> <i>Salix laevigata</i> Alliance (61.206.00) <input type="checkbox"/> <i>Salix lasiolepus</i> Alliance (61.201.00) <input type="checkbox"/> <i>Salix lucida</i> Alliance (61.204.00) <input type="checkbox"/> <i>Salix exigua</i> Alliance (61.209.00) <input type="checkbox"/> <i>Cornus sericea</i> (red osier thickets) Alliance (80.100.00) <input type="checkbox"/> <i>Rosa californica</i> Alliance (63.907.00) <input type="checkbox"/> <i>Acer negundo</i> (box-elder forest) Alliance (61.440.00) <input type="checkbox"/> <i>Sambucus nigra</i> (blue elderberry stands) Alliance (63.410.01) <input type="checkbox"/> Other |

Table 1-4. Priority Attribute 4 – Increasing Native Vegetation Cover Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Native Vegetation Community (VegCAMP CaCode) |
|------------|---|---|
| 4 | <input type="checkbox"/> Willow riparian scrub or shrub | <input type="checkbox"/> <i>Salix gooddingii</i> Alliance (61.211.00) <input type="checkbox"/> <i>Salix laevigata</i> Alliance (61.206.00) <input type="checkbox"/> <i>Salix lasiolepus</i> Alliance (61.201.00) <input type="checkbox"/> <i>Salix lucida</i> Alliance (61.204.00) <input type="checkbox"/> <i>Salix exigua</i> Alliance (61.209.00) <input type="checkbox"/> <i>Cornus sericea</i> (red osier thickets) Alliance (80.100.00) <input type="checkbox"/> <i>Rosa californica</i> Alliance (63.907.00) <input type="checkbox"/> <i>Acer negundo</i> (box-elder forest) Alliance (61.440.00) <input type="checkbox"/> <i>Cephalanthus occidentalis</i> (button willow thickets) Alliance (63.300.00) <input type="checkbox"/> Other |
| 5 | <input type="checkbox"/> Valley foothill riparian | <input type="checkbox"/> <i>Quercus agrifolia</i> Alliance (71.060.00) <input type="checkbox"/> <i>Quercus lobata</i> Alliance (71.040.00) <input type="checkbox"/> <i>Quercus (agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni)</i> Alliance (71.100.00) <input type="checkbox"/> <i>Quercus wislizeni</i> Alliance (71.080.00) <input type="checkbox"/> <i>Juglans hindsii</i> and hybrids special stands Alliance (61.810.00) <input type="checkbox"/> <i>Salix gooddingii</i> Alliance (61.211.00) <input type="checkbox"/> <i>Salix laevigata</i> Alliance (61.205.00) <input type="checkbox"/> <i>Salix lasiolepis</i> Alliance (61.201.00) <input type="checkbox"/> <i>Salix lucida</i> Alliance (61.204.00) <input type="checkbox"/> <i>Salix exigua</i> Alliance (61.209.00) <input type="checkbox"/> <i>Acer negundo</i> (box-elder forest) Alliance (61.440.00) <input type="checkbox"/> <i>Cornus sericea</i> (red osier thickets) Alliance (80.100.00) <input type="checkbox"/> <i>Rosa californica</i> Alliance (63.907.00) <input type="checkbox"/> <i>Platanus racemosa</i> Alliance (61.310.00) <input type="checkbox"/> <i>Populus fremontii</i> Alliance (61.130.00) <input type="checkbox"/> <i>Cephalanthus occidentalis</i> (button willow thickets) Alliance (63.300.00) <input type="checkbox"/> Other |
| 6 | <input type="checkbox"/> Vernal pool complex | <input type="checkbox"/> <i>Lasthenia fremontii</i> – <i>Downingia bicornuta</i> (Fremont's goldfields – <i>Downingia</i> vernal pools) Alliance (42.007.00) <input type="checkbox"/> <i>Eryngium aristulatum</i> Alliance (42.004.00) <input type="checkbox"/> Other |

Table 1-4. Priority Attribute 4 – Increasing Native Vegetation Cover Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Native Vegetation Community (VegCAMP CaCode) |
|------------|--|---|
| 7 | <input type="checkbox"/> Alkali seasonal wetland complex | <input type="checkbox"/> <i>Cressa truxillensis</i> – <i>Distichlis spicata</i> (alkali weed - saltgrass playas and sinks) Alliance (46.100.00) <input type="checkbox"/> <i>Lasthenia fremontii</i> – <i>Distichlis spicata</i> (Fremont’s goldfields – saltgrass alkaline vernal pools) Alliance (44.119.00) <input type="checkbox"/> <i>Allenrolfea occidentalis</i> (iodine bush scrub) Alliance (36.120.00) <input type="checkbox"/> <i>Sporobolus airoides</i> (alkali sacaton grassland) Alliance (52.060.00) <input type="checkbox"/> <i>Leymus cinereus</i> – <i>Leymus triticoides</i> (creeping rye grass turfs) Alliance (41.080.00) <input type="checkbox"/> <i>Frankenia salina</i> (alkali heath marsh) Alliance (52.500.00) <input type="checkbox"/> Other |
| 8 | <input type="checkbox"/> Wet meadow | <input type="checkbox"/> <i>Lasthenia californica</i> – <i>Plantago erecta</i> – <i>Vulpia microstachys</i> (California goldfields – dwarf plantain – six-weeks fescue flower fields) Alliance (44.108.00) <input type="checkbox"/> <i>Leymus cinereus</i> – <i>Leymus triticoides</i> (creeping rye grass turfs) Alliance (41.080.00) <input type="checkbox"/> <i>Ambrosia psilostachya</i> (western ragweed meadows) Alliance (33.065.00) <input type="checkbox"/> <i>Lotus purshianus</i> (Spanish clover fields) Provisional Herbaceous Alliance (52.230.00) <input type="checkbox"/> <i>Juncus effusus</i> (soft rush marshes) Alliance (45.561.00) <input type="checkbox"/> <i>Juncus articus</i> (Baltic and Mexican rush marshes) Alliance (45.562.00) <input type="checkbox"/> Other |
| 9 | <input type="checkbox"/> Stabilized interior dune vegetation | <input type="checkbox"/> <i>Lupinus albifrons</i> (silver bush lupine scrub) Alliance (32.081.00) <input type="checkbox"/> <i>Baccharis pilularis</i> (coyote brush scrub) Alliance (32.060.00) <input type="checkbox"/> <i>Lotus scoparius</i> (deer weed scrub) Alliance (52.240.00) <input type="checkbox"/> Other |
| 10 | <input type="checkbox"/> Oak woodland | <input type="checkbox"/> <i>Quercus agrifolia</i> Alliance (71.060.00) <input type="checkbox"/> <i>Quercus lobata</i> Alliance (71.040.00) <input type="checkbox"/> <i>Quercus (agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni)</i> Alliance (71.100.00) <input type="checkbox"/> <i>Quercus wislizeni</i> Alliance (71.080.00) <input type="checkbox"/> <i>Quercus douglasii</i> Alliance (71.020.00) <input type="checkbox"/> Other |

Table 1-4. Priority Attribute 4 – Increasing Native Vegetation Cover Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Native Vegetation Community (VegCAMP CaCode) |
|------------|------------------------------------|---|
| 11 | <input type="checkbox"/> Grassland | <input type="checkbox"/> <i>Lasthenia californica</i> – <i>Plantago erecta</i> – <i>Vulpia microstachys</i> (California goldfields – Dwarf plantain – six-weeks fescue flower fields) Alliance (44.108.00) <input type="checkbox"/> <i>Leymus cinereus</i> – <i>Leymus triticoides</i> (creeping rye grass turfs) Alliance (41.080.00) <input type="checkbox"/> <i>Nassella pulchra</i> Alliance (41.150.00) <input type="checkbox"/> <i>Eschscholzia californica</i> (California poppy fields) Alliance (43.200.00) <input type="checkbox"/> <i>Amsinckia</i> (fiddleneck fields) Alliance (42.110.00) <input type="checkbox"/> <i>Plagiobothrys nothofulvus</i> (popcorn flower fields) Alliance (43.300.00) <input type="checkbox"/> Other |

Note:

VegCAMP is the California component of the National Vegetation Classification system, maintained by the California Department of Fish and Wildlife in collaboration with other agencies and organizations.

1.4.3 Refer to both **Table 1-2** and **Table 1-4** for this section. On what share of the aggregate area(s) selected in **Field 2** of **Table 1-2** would the covered action increase the cover of the native vegetation community or communities selected in **Field 2** of **Table 1-4**?

- At least 75% of the aggregate area (increases native vegetation cover)
- Less than 75% of the aggregate area

1.4.4 Based on the selection in **Section 1.4.3** above, would the covered action increase native vegetation cover?

- Yes
- No (continue to Section 1.5)

1.4.5 Describe how the covered action would increase cover of the native vegetation communities selected in **Table 1-4**, across the area selected in **Section 1.4.3**, and attach supporting documentation. If the selection(s) in Table 1-4 include “Other,” identify and describe those native vegetation communities here.

Contributing to the Recovery of Special-Status Species

1.5.1 In **Field 1** of **Table 1-5** below, select the ecosystem type(s) that the covered action proposes to restore. Select all that apply.

1.5.2 In **Field 2** of **Table 1-5** below, select the corresponding special-status species whose recovery would be contributed to by the proposed action. Select all that apply.

Table 1-5. Priority Attribute 5 – Contributing to the Recovery of Special-Status Species Selections

| Row Number | Field 1. Ecosystem Type | Field 2. Special-Status Species |
|------------|--|---|
| 1 | <input type="checkbox"/> Tidal wetland | <input type="checkbox"/> California least tern (<i>Sterna antillarum browni</i>) <input type="checkbox"/> Ridgway’s rail (<i>Rallus obsoletus</i>) <input type="checkbox"/> California black rail (<i>Laterallus jamaicensis coturniculus</i>) <input type="checkbox"/> Suisun song sparrow (<i>Melospiza melodia</i>) <input type="checkbox"/> Tricolored blackbird (<i>Agelaius tricolor</i>) <input type="checkbox"/> White-tailed kite (<i>Elanus leucurus</i>) <input type="checkbox"/> Salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>) <input type="checkbox"/> Suisun shrew (<i>Sorex ornatus sinuosus</i>) <input type="checkbox"/> California red-legged frog (<i>Rana draytonii</i>) <input type="checkbox"/> Western pond turtle (<i>Actinemys marmorata</i>) <input type="checkbox"/> Giant garter snake (<i>Thamnophis gigas</i>) <input type="checkbox"/> Green sturgeon (<i>Acipenser medirostris</i>) <input type="checkbox"/> Delta smelt (<i>Hypomesus transpacificus</i>) <input type="checkbox"/> Longfin smelt (<i>Spirinchus thaleichthys</i>) <input type="checkbox"/> Chinook salmon (Central Valley fall/late fall-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Chinook salmon (Central Valley spring-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Chinook salmon (Sacramento River winter-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Steelhead (<i>Oncorhynchus mykiss</i>) <input type="checkbox"/> Delta mudwort (<i>Limosella subulata</i>) <input type="checkbox"/> Mason’s lilaepsis (<i>Lilaeopsis masonii</i>) <input type="checkbox"/> Slough thistle (<i>Cirsium crassicaule</i>) <input type="checkbox"/> Delta tule pea (<i>Lathyrus jepsonii</i>) <input type="checkbox"/> Suisun thistle (<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>) <input type="checkbox"/> Suisun marsh aster (<i>Symphotrichum lentum</i>) <input type="checkbox"/> Soft bird’s beak (<i>Choropyron molle</i> ssp. <i>molle</i>) <input type="checkbox"/> Side flowering skullcap (<i>Scutellaria lateriflora</i>) <input type="checkbox"/> Other special-status species |

Table 1-5. Priority Attribute 5 – Contributing to the Recovery of Special-Status Species Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Special-Status Species |
|------------|---|--|
| 2 | <input type="checkbox"/> Nontidal wetland (including managed wetland) | <input type="checkbox"/> California least tern (<i>Sterna antillarum browni</i>) <input type="checkbox"/> Ridgway’s rail (<i>Rallus obsoletus</i>) <input type="checkbox"/> California black rail (<i>Laterallus jamaicensis coturniculus</i>) <input type="checkbox"/> Suisun song sparrow (<i>Melospiza melodia</i>) <input type="checkbox"/> Tricolored blackbird (<i>Agelaius tricolor</i>) <input type="checkbox"/> White-tailed kite (<i>Elanus leucurus</i>) <input type="checkbox"/> Salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>) <input type="checkbox"/> Suisun shrew (<i>Sorex ornatus sinuosus</i>) <input type="checkbox"/> California red-legged frog (<i>Rana draytonii</i>) <input type="checkbox"/> Western pond turtle (<i>Actinemys marmorata</i>) <input type="checkbox"/> Giant garter snake (<i>Thamnophis gigas</i>) <input type="checkbox"/> Delta mudwort (<i>Limosella subulata</i>) <input type="checkbox"/> Mason’s lilaeopsis (<i>Lilaeopsis masonii</i>) <input type="checkbox"/> Slough thistle (<i>Cirsium crassicaule</i>) <input type="checkbox"/> Delta tule pea (<i>Lathyrus jepsonii</i>) <input type="checkbox"/> Suisun thistle (<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>) <input type="checkbox"/> Suisun marsh aster (<i>Symphyotrichum lentum</i>) <input type="checkbox"/> Soft bird’s beak (<i>Choropyron molle</i> ssp. <i>molle</i>) <input type="checkbox"/> Side flowering skullcap (<i>Scutellaria lateriflora</i>) <input type="checkbox"/> Other special-status species |
| 3 | <input type="checkbox"/> Willow thicket | <input type="checkbox"/> Least Bell’s vireo (<i>Vireo bellii pusillus</i>) <input type="checkbox"/> Western yellow-billed cuckoo (<i>Coccyzus americanus</i>) <input type="checkbox"/> Yellow-breasted chat (<i>Icteria virens</i>) <input type="checkbox"/> Swainson’s hawk (<i>Buteo swainsoni</i>) <input type="checkbox"/> San Joaquin kit fox (<i>Vulpes macrotis mutica</i>) <input type="checkbox"/> Riparian woodrat (<i>Neotoma fuscipes riparia</i>) <input type="checkbox"/> Riparian brush rabbit (<i>Sylvilagus bachmani</i>) <input type="checkbox"/> Chinook salmon (Central Valley fall/late fall-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Chinook salmon (Central Valley spring-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Chinook salmon (Sacramento River winter-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Steelhead (<i>Oncorhynchus mykiss</i>) <input type="checkbox"/> Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>) <input type="checkbox"/> Other special-status species |

Table 1-5. Priority Attribute 5 – Contributing to the Recovery of Special-Status Species Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Special-Status Species |
|------------|---|--|
| 4 | <input type="checkbox"/> Willow riparian scrub or shrub | <input type="checkbox"/> Least Bell’s vireo (<i>Vireo bellii pusillus</i>) <input type="checkbox"/> Western yellow-billed cuckoo (<i>Coccyzus americanus</i>) <input type="checkbox"/> Yellow-breasted chat (<i>Icteria virens</i>) <input type="checkbox"/> Swainson’s hawk (<i>Buteo swainsoni</i>) <input type="checkbox"/> San Joaquin kit fox (<i>Vulpes macrotis mutica</i>) <input type="checkbox"/> Riparian woodrat (<i>Neotoma fuscipes riparia</i>) <input type="checkbox"/> Riparian brush rabbit (<i>Sylvilagus bachmani</i>) <input type="checkbox"/> Chinook salmon (Central Valley fall/late fall-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Chinook salmon (Central Valley spring-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Chinook salmon (Sacramento River winter-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Steelhead (<i>Oncorhynchus mykiss</i>) <input type="checkbox"/> Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>) <input type="checkbox"/> Other special-status species |
| 5 | <input type="checkbox"/> Valley foothill riparian | <input type="checkbox"/> Least Bell’s vireo (<i>Vireo bellii pusillus</i>) <input type="checkbox"/> Western yellow-billed cuckoo (<i>Coccyzus americanus</i>) <input type="checkbox"/> Yellow-breasted chat (<i>Icteria virens</i>) <input type="checkbox"/> Swainson’s hawk (<i>Buteo swainsoni</i>) <input type="checkbox"/> San Joaquin kit fox (<i>Vulpes macrotis mutica</i>) <input type="checkbox"/> Riparian woodrat (<i>Neotoma fuscipes riparia</i>) <input type="checkbox"/> Riparian brush rabbit (<i>Sylvilagus bachmani</i>) <input type="checkbox"/> Chinook salmon (Central Valley fall/late fall-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Chinook salmon (Central Valley spring-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Chinook salmon (Sacramento River winter-run) (<i>Oncorhynchus tshawytscha</i>) <input type="checkbox"/> Steelhead (<i>Oncorhynchus mykiss</i>) <input type="checkbox"/> Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>) <input type="checkbox"/> Other special-status species |

Table 1-5. Priority Attribute 5 – Contributing to the Recovery of Special-Status Species Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Special-Status Species |
|------------|--|---|
| 6 | <input type="checkbox"/> Vernal pool complex | <input type="checkbox"/> Greater sandhill crane (<i>Grus canadensis</i>) <input type="checkbox"/> California red-legged frog (<i>Rana draytonii</i>) <input type="checkbox"/> California tiger salamander (<i>Ambystoma californiense</i>) <input type="checkbox"/> Giant garter snake (<i>Thamnophis gigas</i>) <input type="checkbox"/> Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>) <input type="checkbox"/> Longhorn fairy shrimp (<i>Branchinecta longiantenna</i>) <input type="checkbox"/> Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>) <input type="checkbox"/> Mid-valley fairy shrimp (<i>Branchinecta mesovallensis</i>) <input type="checkbox"/> Conservancy fairy shrimp (<i>Branchinecta conservatio</i>) <input type="checkbox"/> California linderiella (<i>Linderiella occidentalis</i>) <input type="checkbox"/> Legenere (<i>Legenere limosa</i>) <input type="checkbox"/> Boggs Lake hedge-hyssop (<i>Gratiola heterosepala</i>) <input type="checkbox"/> Dwarf downingia (<i>Downingia pusilla</i>) <input type="checkbox"/> Other special-status species |
| 7 | <input type="checkbox"/> Alkali seasonal wetland complex | <input type="checkbox"/> Greater sandhill crane (<i>Grus canadensis</i>) <input type="checkbox"/> California red-legged frog (<i>Rana draytonii</i>) <input type="checkbox"/> California tiger salamander (<i>Ambystoma californiense</i>) <input type="checkbox"/> Giant garter snake (<i>Thamnophis gigas</i>) <input type="checkbox"/> Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>) <input type="checkbox"/> Longhorn fairy shrimp (<i>Branchinecta longiantenna</i>) <input type="checkbox"/> Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>) <input type="checkbox"/> Mid-valley fairy shrimp (<i>Branchinecta mesovallensis</i>) <input type="checkbox"/> Conservancy fairy shrimp (<i>Branchinecta conservatio</i>) <input type="checkbox"/> California linderiella (<i>Linderiella occidentalis</i>) <input type="checkbox"/> Legenere (<i>Legenere limosa</i>) <input type="checkbox"/> Boggs Lake hedge-hyssop (<i>Gratiola heterosepala</i>) <input type="checkbox"/> Dwarf downingia (<i>Downingia pusilla</i>) <input type="checkbox"/> Other special-status species |
| 8 | <input type="checkbox"/> Wet meadow | <input type="checkbox"/> Carquinez goldenbush (<i>Isocoma arguta</i>) <input type="checkbox"/> Alkali milkvetch (<i>Astragalus tener</i>) <input type="checkbox"/> Heckard's peppergrass (<i>Lepidium latipes</i> var. <i>heckardii</i>) <input type="checkbox"/> Brittlescale (<i>Atriplex depressa</i>) <input type="checkbox"/> Heartscale (<i>Atriplex cordulata</i> var. <i>cordulata</i>) <input type="checkbox"/> Delta button celery (<i>Eryngium racemosum</i>) <input type="checkbox"/> San Joaquin spearscale (<i>Atriplex joaquiniana</i>) <input type="checkbox"/> Other special-status species |

Table 1-5. Priority Attribute 5 – Contributing to the Recovery of Special-Status Species Selections (contd.)

| Row Number | Field 1. Ecosystem Type | Field 2. Special-Status Species |
|------------|--|---|
| 9 | <input type="checkbox"/> Stabilized interior dune vegetation | <input type="checkbox"/> Lange’s metalmark butterfly (<i>Apodemia mormo langei</i>) <input type="checkbox"/> Antioch Dunes evening primrose (<i>Oenothera deltoides howellii</i>) <input type="checkbox"/> Contra Costa wallflower (<i>Erysimum capitatum</i>) <input type="checkbox"/> Other special-status species |
| 10 | <input type="checkbox"/> Oak woodland | <input type="checkbox"/> Swainson’s hawk (<i>Buteo swainsonii</i>) <input type="checkbox"/> California red-legged frog (<i>Rana draytonii</i>) <input type="checkbox"/> California tiger salamander (<i>Ambystoma californiense</i>) <input type="checkbox"/> Western pond turtle (<i>Actinemys marmorata</i>) <input type="checkbox"/> Other special-status species |
| 11 | <input type="checkbox"/> Grassland | <input type="checkbox"/> Greater sandhill crane (<i>Grus canadensis</i>) <input type="checkbox"/> White-tailed kite (<i>Elanus leucurus</i>) <input type="checkbox"/> Yellow-breasted chat (<i>Icteria virens</i>) <input type="checkbox"/> Swainson’s hawk (<i>Buteo swainsonii</i>) <input type="checkbox"/> Western burrowing owl (<i>Athene cunicularia</i>) <input type="checkbox"/> California red-legged frog (<i>Rana draytonii</i>) <input type="checkbox"/> California tiger salamander (<i>Ambystoma californiense</i>) <input type="checkbox"/> Western pond turtle (<i>Actinemys marmorata</i>) <input type="checkbox"/> Giant garter snake (<i>Thamnophis gigas</i>) <input type="checkbox"/> Other special-status species |

1.5.3 In **Table 1-5** above, each row in **Field 1** lists ecosystem type(s), and the corresponding row in Field 2 lists the special-status species for which a covered action could contribute to their recovery.

Based on the selection(s) made in **Field 2**, would the covered action contribute to the recovery of special-status species?

- Yes
- No (continue to Section 1.6)

1.5.4 If the answer to **Section 1.5.3** is “Yes,” describe how the covered action would contribute to the recovery of the special-status species corresponding to the selections in **Table 1-5** above, and attach supporting documentation. If the selection(s) in Table 1-5 include “Other,” identify and describe those special-status species in the area provided below.

Ecosystem Restoration Tier

1.6.1 **Field 1** of **Table 1-6.1**, below, lists Priority Attributes 1 through 5. The corresponding row in **Field 2** of **Table 1-6.1** lists the selection in this **Appendix 3A** made in Sections 1.1 through 1.5, above, on whether the covered action would have the applicable Priority Attribute.

Complete **Field 3** of **Table 1-6.1**, by copying the responses from the corresponding sections in Sections 1.1. through 1.5 of this **Appendix 3A** form, as indicated in **Field 2**.

Table 1-6.1. Summary of Responses

| Row Number | Field 1. Priority Attribute | Field 2. Section Number | Field 3. Response to Section |
|------------|--|----------------------------|---|
| 1 | Restoring Hydrological, Geomorphic, and Biological Processes | 1.1.3 | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | Being Large-Scale | 1.2.3 | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | Improving Connectivity | 1.3.2 | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 4 | Increasing Native Vegetation | 1.4.4 | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5 | Contributing to the Recovery of Special-Status Species | 1.5.3 | <input type="checkbox"/> Yes <input type="checkbox"/> No |

1.6.2 Add the number of “Yes” responses in **Table 1-6.1** Field 3, and then select the corresponding number in **Field 1** of **Table 1-6.2**, below. The corresponding value in **Field 2** of **Table 1-6.2** is the covered action’s ecosystem restoration tier.

Table 1-6.2. Calculated Ecosystem Restoration Tier

| Row Number | Field 1. Number of “Yes” Responses in Table 1-6.1, Field 3, Rows 1 through 5 | Field 2. Ecosystem Restoration Tier |
|------------|---|--|
| 1 | <input type="checkbox"/> 1 | <input type="checkbox"/> Tier 5 |
| 2 | <input type="checkbox"/> 2 | <input type="checkbox"/> Tier 4 |
| 3 | <input type="checkbox"/> 3 | <input type="checkbox"/> Tier 3 |
| 4 | <input type="checkbox"/> 4 | <input type="checkbox"/> Tier 2 |
| 5 | <input type="checkbox"/> 5 | <input type="checkbox"/> Tier 1 |

Section 2. Social Benefits and Delta as Place

Social Benefits

Appendix 3A, Section 2, Subsections 2.1 through 2.4 (Social Benefits) require the identification of the social benefits that would be provided by the covered action, and the disclosure of supporting information, in each of the following four categories:

- 2.1 Cultural Benefits
- 2.2 Recreational Benefits
- 2.3 Agricultural Benefits
- 2.4 Natural Resource Benefits

Cultural Benefits

- 2.1.1 In **Field 1** of **Table 2-1** below, select the types of cultural benefits that the covered action would provide. Select all that apply.
- 2.1.2 In **Field 2** of **Table 2-1** below, select the specific cultural benefits that the covered action would provide. Select all that apply.

Table 2-1. Cultural Benefits Selections

| Row Number | Field 1. Types of Cultural Benefits | Field 2. Specific Cultural Benefits |
|------------|--|---|
| 1 | <input type="checkbox"/> Ecocultural resources | <input type="checkbox"/> Supports long-term resilience of tribal ecocultural resource species <input type="checkbox"/> Engages tribes in a way that respects sovereignty and protects or enhances access to natural resources <input type="checkbox"/> Provides education on ecocultural resources through interpretive signage, facilities, or funding for interpretive personnel/events <input type="checkbox"/> Supports responsible ecotourism, agritourism, sportfishing, hunting, or other cultural activities <input type="checkbox"/> Involves the public in stewardship of ecocultural resources during project implementation or monitoring |
| 2 | <input type="checkbox"/> Human health and well-being | <input type="checkbox"/> Improves air quality, water quality, or environmental quality in a manner that is expected to protect or enhance human health and well-being <input type="checkbox"/> Provides public access to lands for exercise, relaxation, and/or appreciation of natural beauty |
| 3 | <input type="checkbox"/> Environmental justice | <input type="checkbox"/> Redresses existing environmental inequities by targeting action and resources for disadvantaged and disproportionately impacted communities <input type="checkbox"/> Engaged and co-planned with disadvantaged communities <input type="checkbox"/> Improves access for safe subsistence fishing <input type="checkbox"/> Improves environmental conditions (e.g., air quality or water quality) for at-risk groups |

2.1.3 Based on the types of cultural benefits selected in **Field 1** of **Table 2-1**, and the specific cultural benefits selected in **Field 2**, would implementation of the covered action result in cultural benefits?

- Yes
- No

2.1.4 If the answer to **Section 2.1.3** is “Yes,” describe how the covered action would provide the types of cultural benefits and specific cultural benefits selected in **Table 2-1**, and then attach supporting documentation. Cite any relevant literature or consultations with tribes, local communities, or experts.

2.1.5 If the answer to **Section 2.1.3** is “No,” but the proposed action would provide cultural benefits not listed in the table above, describe the cultural benefits that the action would provide, and attach supporting documentation. Cite any relevant literature or consultations with tribes, local communities, or experts.

Recreational Benefits

2.2.1 In **Field 1** of **Table 2-2** below, select the specific recreational benefits that the covered action would provide. Select all that apply.

Table 2-2. Recreational Benefits Selections

| Row Number | Field 1. Specific Recreational Benefits |
|------------|---|
| 1 | <input type="checkbox"/> Provides opportunities for land-based recreational activities such as hiking and wildlife observation |
| 2 | <input type="checkbox"/> Provides opportunities for water-based recreational activities such as nonmotorized and motorized boating |
| 3 | <input type="checkbox"/> Connects users to the Great California Delta Trail System |
| 4 | <input type="checkbox"/> Includes public facilities such as restrooms |
| 5 | <input type="checkbox"/> Contributes to species populations in a way that benefits recreational fishing (e.g., salmon, sturgeon), nature study, and wildlife observation (e.g., birdwatching) |
| 6 | <input type="checkbox"/> Enhances public access to recreation (e.g., provides parking) while mitigating traffic impacts on neighboring agricultural and private lands |

2.2.2 Based on the specific recreational benefits selected in **Field 1** of **Table 2-2**, would implementation of the covered action result in recreational benefits?

- Yes
- No

2.2.3 If the answer to **Section 2.2.2** is “Yes,” describe how the covered action would provide the specific recreational benefits selected in **Table 2-2**, and then attach supporting documentation. Cite any relevant literature or consultations with local communities or experts.

2.2.4 If the answer to **Section 2.2.2** is “No,” but the proposed action would provide recreational benefits not listed in the table above, describe the recreational benefits that the proposed action would provide, and attach supporting documentation. Cite any relevant literature or consultations with local communities or experts.

Agricultural Benefits

2.3.1 In **Field 1** of **Table 2-3** below, select the specific agricultural benefits that the covered action would provide. Select all that apply.

Table 2-3. Agricultural Benefits Selections

| Row Number | Field 1. Specific Agricultural Benefits |
|------------|---|
| 1 | <input type="checkbox"/> Protects or enhances ecological systems supportive of agriculture such as supporting pollination or natural pest control |
| 2 | <input type="checkbox"/> Conserves or improves soils in a manner that benefits agricultural land use |
| 3 | <input type="checkbox"/> Restores natural processes and communities that would reduce flood risk to neighboring agricultural lands |
| 4 | <input type="checkbox"/> Improves local water quality |
| 5 | <input type="checkbox"/> Recharges groundwater, increasing the water supply available in an aquifer, in locations that do not have high water tables |
| 6 | <input type="checkbox"/> Prevents increases in subsurface water levels, in locations with high water tables that interfere with agricultural activities |

2.3.2 Based on the specific agricultural benefits selected in **Field 1** of **Table 2-3**, would implementation of the proposed action result in agricultural benefits?

Yes

No

2.3.3 If the answer to **Section 2.3.2** is “Yes,” describe how the covered action would provide the specific agricultural benefits selected in **Table 2-3**, and then attach supporting documentation. Cite any relevant literature or consultations with local communities or experts.

2.3.4 If the answer to **Section 2.3.2** is “No,” but the covered action would provide agricultural benefits not listed in the table above, describe the agricultural benefits that the action would provide, and attach supporting documentation. Cite any relevant literature or consultations with local communities or experts.

Natural Resource Benefits

2.4.1 In **Field 1** of **Table 2-4** below, select the specific natural resource benefits that the covered action would provide. Select all that apply.

Table 2-4. Natural Resource Benefits Selections

| Row Number | Field 1. Specific Natural Resource Benefits |
|------------|--|
| 1 | <input type="checkbox"/> Reduces flood risk by reducing peak water elevations |
| 2 | <input type="checkbox"/> Reduces flood risk by reducing operations and maintenance requirements on flood control works |
| 3 | <input type="checkbox"/> Reduces flood risk by reversing subsidence |
| 4 | <input type="checkbox"/> Reduces carbon emissions by reversing subsidence |
| 5 | <input type="checkbox"/> Mitigates climate change by sequestering carbon or other greenhouse gases |
| 6 | <input type="checkbox"/> Reduces heat island effects |
| 7 | <input type="checkbox"/> Increases native species habitat |
| 8 | <input type="checkbox"/> Enhances biodiversity of native species |

2.4.2 Based on the specific natural resource benefits selected in **Field 1** of **Table 2-4**, would implementation of the covered action result in natural resource benefits?

Yes

No

2.4.3 If the answer to **Section 2.4.2** is “Yes,” describe how the covered action would provide the specific natural resource benefits selected in **Table 2-4**, and then attach supporting documentation. Cite any relevant literature or consultations with local communities or experts.

2.4.4 If the answer to **Section 2.4.2** is “No,” but the proposed action would provide natural resource benefits not listed in the table above, describe the natural resource benefits that the action would provide, and attach supporting documentation. Cite any relevant literature or consultations with local communities or experts.

Delta as Place

2.4.5 If the answers to **Section 2.1.3**, **Section 2.2.2**, **Section 2.3.2**, and **Section 2.4.2** are “No,” explain how the proposed action would protect and enhance the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place (California Water Code section 85054), and then attach supporting documentation. Cite any relevant literature or consultations with local communities or experts.

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Appendix 4A. Protecting, Restoring, and Enhancing Habitats at Appropriate Elevations (23 CCR 5006)

A certification of consistency for any covered action that is subject to Section 5006 of Title 23 of the California Code of Regulations must include a completed Appendix 4A as well as the documentation and information required by Appendix 4A.

- 1.1.1 In **Field 1** of **Table 1-1** below, select the elevation band in which the project is located. If the project is located in more than one elevation band, select all applicable elevation bands.
- 1.1.2 In **Field 2** of **Table 1-1** below, select the type of conservation action that would be implemented by the project or a portion of the project. If more than one type of conservation action would be implemented by the project, or a portion of the project, select all applicable conservation actions.

Table 1-1. Elevation Bands and Conservation Actions

| Row Number | Field 1. Elevation Bands | Field 2. Conservation Actions |
|------------|--|---|
| 1 | <input type="checkbox"/> Upland elevation band | Protection, restoration, or enhancement of: <input type="checkbox"/> Oak woodland <input type="checkbox"/> Grassland <input type="checkbox"/> Seasonal wetlands <input type="checkbox"/> Upland and lowland river floodplain |
| 2 | <input type="checkbox"/> Floodplain elevation band | Protection, restoration, or enhancement of: <input type="checkbox"/> Upland and lowland river floodplain <input type="checkbox"/> Nontidal wetlands <input type="checkbox"/> Annual flooding regimes <input type="checkbox"/> Geomorphic processes |
| 3 | <input type="checkbox"/> Sea level rise accommodation band | Protection, restoration, or enhancement of: <input type="checkbox"/> Oak woodland <input type="checkbox"/> Grassland <input type="checkbox"/> Seasonal wetlands <input type="checkbox"/> Upland and lowland river floodplain <input type="checkbox"/> Annual flooding regimes <input type="checkbox"/> Geomorphic processes <input type="checkbox"/> Emergent wetlands <input type="checkbox"/> Migration space |

Table 1-1. Elevation Bands and Conservation Actions (contd.)

| Row Number | Field 1. Elevation Bands | Field 2. Conservation Actions |
|------------|--|--|
| 4 | <input type="checkbox"/> Intertidal elevation band | Protection, restoration, or enhancement of: <ul style="list-style-type: none"> <input type="checkbox"/> Tidal wetlands <input type="checkbox"/> Tidal inundation regimes <input type="checkbox"/> Migration space |
| 5 | <input type="checkbox"/> Shallow subtidal elevation band | <ul style="list-style-type: none"> <input type="checkbox"/> Subsidence halting¹ <input type="checkbox"/> Subsidence reversal¹ |
| 6 | <input type="checkbox"/> Deep subtidal elevation band | <ul style="list-style-type: none"> <input type="checkbox"/> Subsidence halting¹ <input type="checkbox"/> Subsidence reversal¹ <input type="checkbox"/> Agricultural practices that support wildlife |

Note:

¹ This is an outcome-based activity. Please see the regulatory definitions of *subsidence halting* and *subsidence reversal* in 23 CCR 5001. If this activity is selected, explain in Section 1.1.4 how the covered action would result in this outcome.

1.1.3 In **Table 1-1**, above, each row in **Field 1** lists the elevation band that is appropriate for the corresponding conservation actions listed in the same row in **Field 2**.

Based on the selected elevation band(s) in **Field 1** and the selected corresponding appropriate conservation action(s) in **Field 2**, is (are) the proposed conservation action(s) selected in **Field 2** appropriate for the selected elevation band(s) selected in **Field 1**? Do not select “Yes” if there is no selection in **Field 2** corresponding to each selected elevation band in **Field 1**.

- Yes
- No

1.1.4 If the answer to **Section 1.1.3** is “Yes,” provide supporting evidence to demonstrate that the selections are accurate and describe such evidence below.

1.1.5 If the answer to **Section 1.1.3** is “No,” based on best available science, provide a rationale for the inconsistency and explain how the conservation action is nonetheless at an appropriate elevation, and therefore consistent with this policy.

Definitions (23 CCR 5001)

The definitions set forth below would be codified in Section 5001 of Title 23 of the California Code of Regulations.

Agricultural Benefits: a category of social benefits that are derived by agricultural operations in the Delta, and the individuals and communities that those operations support. Agricultural benefits may include, but are not limited to, those listed in Table 2-3 in Appendix 3A.

Alkali Seasonal Wetland Complex: a type of seasonal wetland characterized by herbaceous or shrub communities and poorly drained, clay-rich soils with a high residual salt content.

Annual Flooding Regimes: river or stream flooding that occurs on an annual basis.

Aspects of Connectivity: an attribute of actions that restore ecosystem function, as defined in Table 1-3 in Appendix 3A.

Biological Processes: processes exhibited by the living components of an ecosystem such as nutrient cycling, primary production, vegetation and wildlife recruitment and growth, predation, and evolution.

Cultural Benefits: a category of social benefits that are derived by individuals and communities with distinct cultural ties to the ecosystems, plants, fish, and wildlife of the Delta. Cultural benefits may include, but are not limited to, those listed in Table 2-1 in Appendix 3A.

Deep Subtidal Elevation Band: In the Delta, land area that is located more than 8 feet below Mean Lower Low Water. In Suisun Marsh, land area that is located more than 4.5 feet below Mean Lower Low Water.

Disadvantaged Communities: as defined by Section 39711 of the California Health and Safety Code, means an area disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation, or with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

Ecocultural Resources: resources needed to maintain the nature-dependent components of a culture in the face of externally driven social or natural change. Ecocultural resources may include, but are not limited to, those listed in Table 2-1 in Appendix 3A.

Emergent Vegetation: erect, nonwoody vegetation that grows in water but is rooted in sediment with stems and leaves that emerge out of the water; examples include, but are not limited to, bulrushes or cattails.

Emergent Wetland: wetland ecosystems with a plant community dominated by emergent vegetation; examples include tidal wetlands, nontidal wetlands, or managed wetlands.

Environmental Justice: as defined by Section 65040.12(e) of the California Government Code, the fair treatment of people of all races, cultures, and incomes with respect to the

development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

Floodplain Elevation Band: lands above the Sea Level Rise Accommodation Band within the Yolo Bypass and the Lower Mokelumne-Cosumnes River and lower San Joaquin River corridors.

Geomorphic Processes: processes that shape and form the surface of the earth including erosion, deposition, river meander migration, and channel formation.

Grassland: a terrestrial ecosystem characterized by low nonwoody plant communities occupying well-drained soils, composed of native herbs and annual and perennial grasses, and usually devoid of trees.

Human Health and Well-Being: a condition of bodily comfort and happiness that is free from sickness or suffering, which can be derived from ecosystem processes, goods, and services, among other sources.

Hydrological Processes: processes exhibited by water, including streamflow, flooding, tidal action, percolation, and subsurface flow.

Intertidal Elevation Band: land area that is located between Mean Lower Low Water and Mean Higher High Water.

Inundation Regimes: the frequency and magnitude of flooding on the landscape.

Large-Scale: a type of covered action that restores hydrological, geomorphic, or biological processes on an area that is equal to or larger than the ecosystem-specific thresholds defined in Table 1-2 in Appendix 3A.

Managed Wetland: a type of wetland that requires human intervention to maintain wetland hydrology and vegetation. Human intervention includes, but is not limited to, actions such as construction of levees and berms, water management infrastructure, and vegetation management.

Migration Space: land that is located adjacent to, and at a higher elevation than, an existing ecosystem, which allows the ecosystem to gradually shift its location up in elevation in response to sea level rise.

Mean Higher High Water: A standard elevation defined by a certain phase of the tide that is used as a reference to measure local water levels. The average of the higher high water height of each tidal day observed over a period of time, typically across multiple years.

Mean Lower Low Water: A standard elevation defined by a certain phase of the tide that is used as a reference to measure local water levels. The average of the lower low water height of each tidal day observed over a period of time, typically across multiple years.

Mean Sea Level: A standard elevation defined by a certain phase of the tide that is used as a reference to measure local water levels. The arithmetic mean of hourly heights observed over a period of time, typically across multiple years.

Native Vegetation Community: a vegetation community with less than five percent cover comprised of nonnative plant species.

Natural Resource Benefits: a category of social benefits that are derived from an ecosystem, including processes, goods, and services. Natural resource benefits may include, but are not limited to, those listed in Table 2-4 in Appendix 3A.

Nonnative Invasive Species: species that establish and reproduce rapidly outside of their native range and may threaten the diversity or abundance of native species through competition for resources, predation, parasitism, hybridization with native populations, introduction of pathogens, or physical or chemical alteration of the invaded habitat.

Nontidal wetland: a type of emergent wetland that is permanently saturated, dominated by emergent vegetation, and often occupying upstream floodplain positions above tidal influence. Distinct from seasonal wetlands, which are not permanently saturated.

Oak woodland: a terrestrial ecosystem characterized by sparse to dense oak-dominated tree communities with an understory of nonwoody plants such as grasses or herbs.

Recreational Benefits: a category of social benefits that are derived by individuals or groups that recreate in the Delta, and the business operations and communities that recreation supports, including but not limited to, those listed in Table 2-2 in Appendix 3A.

Saturated: in the context of the Delta Plan, a wet soil condition without standing water.

Sea Level Rise Accommodation Band: land area that is located between Mean Higher High Water and 10 feet above Mean Higher High Water.

Seasonal Wetland: seasonally saturated land with nonwoody plant communities; characterized by poorly drained, clay-rich soils; examples include vernal pool complex, alkali seasonal wetland complex, and wet meadow.

Shallow Subtidal Elevation Band: In the Delta, land area that is located between Mean Lower Low Water and 8 feet below Mean Lower Low Water. In Suisun Marsh, land area that is located between Mean Lower Low Water and 4.5 feet below Mean Lower Low Water.

Small-Scale: a type of covered action that restores hydrological, geomorphic, or biological processes on an area that is less than the ecosystem-specific thresholds defined in Table 1-2 in Appendix 3A. Not Large-Scale.

Social Benefits: positive effects that are derived by individuals, communities, or society at-large. In the context of Chapter 4 of the Delta Plan (Protect, Restore, and Enhance the Ecosystem), social benefits are the indirect cultural, recreational, agricultural, or natural resources benefits that individuals or groups of people derive from the protection, restoration, or enhancement of the ecosystem.

Special-Status Species: a species or subspecies of animal or plant, or a variety of a particular plant, that is endangered, rare, or threatened as defined by Section 15380 of Title 14 of the California Code of Regulations, or that is designated as a Species of Special Concern by the California Department of Fish and Wildlife.

Stabilized Interior Dune Vegetation: wind-driven sand deposits with vegetation dominated by shrub species, which may also support live oaks on more stabilized dunes that have more well-developed soil profiles.

Subsidence: Sinking of the land surface due to a number of factors, including groundwater extraction, agricultural activities, or oil or gas extraction. In the Delta, land subsidence is mainly caused by oxidation of peat soils, but also from wind erosion. Drainage and cultivation dry the saturated peat, reducing its volume by approximately 50 percent.

Subsidence Halting: a process that halts subsidence caused by organic soil oxidation in order to maintain land elevation. Subsidence halting results in land elevations that are nearly the same as land elevations prior to subsidence halting. Examples include, but are not limited to, managed inundation with water to halt oxidation through activities such as rice cultivation and managed wetlands.

Subsidence Reversal: a process that both halts subsidence caused by organic soil oxidation and leads to increases in land elevation through accumulation of new soil material. Subsidence reversal results in land elevations that are higher than land elevations prior to subsidence reversal; the process does not necessarily result in land elevations at or above mean sea level, as this depends on the initial elevation and the rate of subsidence reversal over time. Examples of subsidence reversal management actions include, but are not limited to, increasing land elevation by accreting organic material in managed wetlands, and placement of fill and levee breaching to reestablish hydrological connection with a river or bay.

Tidal Wetland: a type of emergent wetland ecosystem characterized by daily and annual inundation cycles and a perennially wet, high water table, and dominated by emergent vegetation. Woody vegetation such as willow species may be a significant component for some areas, particularly in the western-central Delta.

Upland and Lowland River Floodplain: an ecosystem associated with river processes such as annual flooding, erosion, deposition, and channel migration. Examples include willow thicket, willow riparian shrub, and valley foothill riparian vegetation communities.

Upland Elevation Band: land area that is located at elevations higher than 10 feet above Mean Higher High Water, and not within the Floodplain Elevation Band.

Valley Foothill Riparian Woodland: a natural community type that occurs within Upland and Lowland River Floodplain, consisting of mature riparian trees and dense shrubs including nonconifer species, and including but not limited to sycamores, oaks, willows, and cottonwoods.

Vernal Pool Complex: a type of seasonal wetland ecosystem characterized by seasonally saturated depressions, with a relatively impermeable subsurface soil layer and the distinctive vernal pool plant species listed in Table 1-4 in Appendix 3A.

Wet Meadow: a type of seasonal wetland ecosystem characterized by seasonally saturated depressions.

Willow Riparian Shrub: a natural community type that occurs within upland and lowland river floodplain, consisting of riparian vegetation dominated by woody vegetation or shrubs with few to no tall trees.

Willow Thicket: a natural community type that occurs within upland and lowland river floodplain, is perennially wet and dominated by woody vegetation, and is generally located at the terminus of major creeks or rivers and/or alluvial fans on to the valley floor. Emergent vegetation may be a significant component.

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