

APPENDIX E: Quantitative Measures

Note: This appendix is provided to help the applicant complete Line 7: Expected Quantitative Result in the project summary, Section 5: Project Tasks and Results Outline, of the ERP Proposal Application Form.

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Quantitative Measures

Describe quantifiable parameters to be used in the project, using the material provided in Appendix C for guidance. Provide baseline conditions for activities related to the habitats, and measures quantifying the benefits of projects activities at each site. If quantitative measures are not applicable, explain why the project does not have any associated quantitative measures.

Habitat Description

Describe the project area using the following habitat types:

Agricultural Lands

- **Agricultural land – Grazing:** Grazing land is land on which the existing vegetation is suited to the grazing of livestock.
- **Agricultural land – Intensively managed cropland (irrigated):** Irrigated farmland is land with a developed irrigation water supply that is dependable and of adequate quality. Examples include row crops such as corn or lettuce.
- **Agricultural land – Intensively managed cropland (non-irrigated):** Non-irrigated farmland is land on which agricultural commodities are produced on a continuing or cyclic basis utilizing stored soil moisture. Wheat and other grains are the most common non-irrigated crops.
- **Seasonally Flooded Agricultural Land:** Seasonally flooded agricultural land habitat includes agricultural lands farmed for grain, rice, field, truck, and other crops for profit that require seasonal flooding for at least one week at a time as a management practice (e.g., for pest control and irrigation) or are purposely flooded seasonally to enhance habitat values for specific wildlife species (e.g., ducks for duck clubs), Agricultural ditches and drains associated with maintaining seasonally flooded agricultural land are included in this habitat type.

Seasonal Wetlands

- **Managed seasonal wetland:** Wetlands dominated by native or non-native herbaceous plants, excluding croplands farmed for profit (e.g., corn and rice), that land managers flood and drain during specific periods to enhance habitat values for specific wildlife species. Ditches and drains associated with managed seasonal wetlands are included in this habitat type.
- **Natural seasonal wetland:** Includes vernal pools and other unmanaged seasonal wetlands with natural hydrologic conditions that are dominated by herbaceous vegetation and that annually pond surface water or maintain saturated soils at the ground surface for enough of the year to support facultative or obligate wetland plant species. Alkaline and saline seasonal wetlands that were not historically part of a tidal regime are included in natural seasonal wetlands.

Activity

Describe the Techniques Employed used to accomplish the project objective. Use activities listed below where applicable:

- **Acquisition:** Purchase of title, easement or lease to the site. This activity will generally be paired with at least one other activity (especially enhancement, protection or conversion/restoration), but only as long as both activities took place during the same phase.
- **Diversions consolidated:** Two or more diversions combined.
- **Diversions screened:** Screens placed in diversions to prevent entrainment of salmonids.
- **Enhancement:** Improving the ecological value of the site without changing the habitat type.
- **Fish barrier removal:** Removing an impediment to fish passage by removing or modifying a structure.
- **Fish exclusion barrier installed:** Preventing fish movement into an area by installing an exclusion barrier.
- **Flow enhancement:** Improving water quantity, quality and timing.
- **Gravel augmentation:** Enhancing salmonid spawning habitat by adding gravel to the streambed.
- **Protection (as original habitat):** Maintaining the habitat of the site as it was before the project (generally an acquisition project) took place.
- **Restoration/Conversion (to new habitat):** Improving the ecological value of the site by returning the habitat to its original type or changing it to a new type.
- **Screens upgraded:** Improving screens on a diversion to prevent entrainment of juvenile salmonids.
- **Sediment Reduction:** Will help to reduce stream sedimentation.
- **Wildlife-Friendly Ag:** Agricultural practices managed in a wildlife-friendly manner.

Measurements

Describe the method used to make the quantitative measurements, if known. Use the quantitative units including but not limited to the following:

- **Acres:** Use for all measurements of area.
- **Average width (feet):** Use to describe width of stream or riparian area.
- **Flow (cubic feet per second (cfs)):** Use for measurements of water flow (passing through diversions or returned to the stream).
- **Flow through original diversions – consolidation projects only (cfs):** Use to describe flow through original set of diversions that are combined into a smaller number of diversions by the project.
- **Flow: maximum diversion allowed (cfs):** Enter the maximum amount of flow allowed through diversion.
- **Flow: maximum screen capacity (cfs):** Enter the maximum amount of flow that the screen can handle.
- **Gravel (cubic yards):** Use for volumes of gravel.

- **Gravel (tons):** Use for weights of gravel.
- **Maximum width (feet):** Use to describe width of stream or riparian area.
- **Minimum width (feet):** Use to describe width of stream or riparian area.
- **Number of control weirs (count):** Enter the number of control weirs treated.
- **Number of culverts (count):** Enter the number of culverts treated.
- **Number of dams (count):** Enter the number of dams treated.
- **Number of diversion dams (count):** Enter the number of diversion dams treated.
- **Number of diversions (count):** Enter the final number of diversions treated. Please note: each diversion treated in a project should be assigned to a different site. Multiple screens installed at a single diversion can be included in one site.
- **Number of diversions consolidated (count):** Enter the original number of diversions (before consolidation).
- **Number of fish barriers (count):** Enter the number of fish barriers treated.
- **Number of fish ladders installed (count):** Enter the number of fish ladders installed.
- **Number of fish ladders upgraded (count):** Enter the number of fish ladders upgraded.
- **Number of items planted - trees, shrubs, grass plugs (count):** Enter the number of items planted.
- **Stream length (miles):** Use to measure length of stream treated, acquired or protected.
- **Stream length opened for passage (miles):** Use to measure length of stream made available to fish by removing barriers.
- **Water volume (acre-feet):** Use to measure volumes of water (passing through diversions or returned to the stream).

Agricultural Land Additional Information

Williamson Act

Identify land enrolled in a Williamson Act contract. For more information about the Williamson Act, go to the Department of Conservation web site (<http://www.consrv.ca.gov/DLRP/lca/index.htm>).

Department of Conservation Farmland Map Category

Identify the category as mapped by the Department of Conservation's Farmland Mapping and Monitoring Program, if any. For more information about the program, visit <http://www.consrv.ca.gov/DLRP/fmmp/index.htm>.

- **Prime Farmland:** The best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- **Farmland of Statewide Importance:** Similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Unique Farmland:** Consists of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- **Farmland of Local Importance:** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- **Grazing Land:** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit is 40 acres.
- **Urban and Built-up Land:** Occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.
- **Other Land:** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as other.

Acquisitions and Easements Information

Provide ownership information for acquisition and if an easement is held, enter both the easement holder and the landowner.

Owner Name: Provide owner's name.

Contact Name: Provide the name of the contact person.

Owner Interest: Select from the following list, based on the ownership at the end of the project if the land changed ownership during the course of the project or as a result of the project.

- **Easement:** Rights to use the land for a specific purpose.
- **Title:** Permanent ownership.
- **Rent/Lease:** Temporary use of the land.

Acres: Enter the number of acres owned by this landowner. If the project site is owned by more than one owner, provide information on each owner separately and record the acres that they own.

Parcel: For each parcel, provide Assessor's Parcel Number (APN), acreage, and County.