Appendix 12E

Detailed Accounting of Direct Effects of Alternatives on Natural Communities and Covered Species

Introduction

This appendix contains tables that display the results of GIS-based modeling of impacts to natural communities and covered plant and wildlife species discussed in the body of Chapter 12 of the BDCP EIR/EIS. The methodology for this modeling effort is described in Section 12.3.2 of Chapter 12, *Methods of Analysis*. Tables are included that represent the effects of all alternatives analyzed in the EIR/EIS. Where different alternatives have identical direct effects, the tables have not been duplicated. Alternatives 6A, 6B, and 6C have the same construction footprints for the water conveyance facilities and the same restoration actions as Alternatives 1A, 1B, and 1C, respectively, so separate tables are not included for Alternatives 6A, 6B, and 6C. Alternative 2C has the same construction footprint and restoration actions as Alternative 1C, so a separate table for 2C has not been included. Similarly, Alternative 8 effects are identical to Alternative 4, so the reader is referred to the Alternative 4 tables to view the effects of Alternative 8.

The tables are organized by alternative. For each alternative, there are four tables. This includes near-term and late long-term time frame tables of impacts on natural communities, and near-term and late long-term tables of impacts on covered plant and wildlife species. Tables are not included for the early long-term time period because this five year period did not warrant independent analysis for terrestrial biological resources.

Alternative 1A

Table 12E-1. Direct Effects on Natural Communities–Alternative 1A with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	48	0	0	133	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	69	0	144
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	6	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0	6
Valley/Foothill Riparian	17,966	58	0	0	28	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	445	0	115
Grassland	78,047	313	2	151	111	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,204	151	350
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	204	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	66	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	70	0	20
Managed Wetland	70,798	3	0	75	8	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,745	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,297	1,539	972	1,219	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	12,194	972	1,582
Cropland	459,778	2,182	1,489	947	1,162	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	11,633	947	1,496
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	234	57	42	153	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	953	42	153
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	39	18	0	72	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	0	99
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	402	727	11	330	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,511	11	330
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	40	51	0
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	874	40	46	84	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,316	46	96
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	42	0	0	67	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	2,005	0	67
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	135	0	0
Non-irrigated native pasture	3,465	5	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	314	0	1
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331	0	8
Beans (green)	122	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	237	0	0
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	21	15	53	60	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	576	53	109
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	96	63	0	184	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	278	0	264
Citrus and Sub-tropical	264	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	5	0	2
Vineyards	33,980	225	215	645	94	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	1,683	645	94
Native Vegetation	28,103	138	18	70	86	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	552	70	105
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	6	15
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	115	50	26	57	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	560	26	86
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	16	4	0	7	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	26	0	7
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Farmsteads (without residence)	820	14	2	0	3	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	59	0	3
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	79	38	25	43	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	333	25	67
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	4	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	58	0	5
Developed	90,660	87	18	2	69	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	243	2	85

Table 12E-2. Direct Effects on Natural Communities–Alternative 1A with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction of recreational-related facilities	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	**Permanent (Acres)**	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Tidal Perennial Aquatic	86,263	48	0	0	133	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	76	0	148
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	14	0	7
Valley/Foothill Riparian	17,966	58	0	0	28	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	742	0	150
Grassland	78,047	313	2	151	111	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	50	35	2,371	151	384
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	375	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	126	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	254	0	36
Managed Wetland	70,798	3	0	75	8	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,773	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,297	1,539	972	1,219	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	0	54,621	972	2,776
Cropland	459,778	2,182	1,489	947	1,162	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	0	50,874	947	2,604
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	9	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	234	57	42	153	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	0	3,270	42	224
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	39	18	0	72	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	0	1,671	0	168
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	402	727	11	330	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	0	5,368	11	475
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	135	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	0	2,300	0	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	0	110	51	2
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	874	40	46	84	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	0	14,002	46	429
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	42	0	0	67	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	0	3,558	0	88
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	0	1,551	0	6
Non-irrigated native pasture	3,465	5	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	0	325	0	3
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	0	35	0	4
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	0	1,343	0	22
Beans (green)	122	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	228	0	8
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	0	920	0	66
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	6	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	21	15	53	60	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	0	4,979	53	280
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	0	259	0	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	0	255	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	0	128	0	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	96	63	0	184	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	1,016	0	273
Citrus and Sub-tropical	264	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	84	0	2
Vineyards	33,980	225	215	645	94	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	0	2,949	645	161
Native Vegetation	28,103	138	18	70	86	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	0	2,359	70	128
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	420	6	60
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non Cropland	27,328	115	50	26	57	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	0	3,747	26	172
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	16	4	0	7	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	0	117	0	12
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	0	12	0	3

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction of recreational-related facilities	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	Permanent (Acres)	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	14	2	0	3	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	0	0	113	0	6
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	79	38	25	43	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	0	0	3,120	25	133
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	4	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	0	233	0	13
Developed	90,660	87	18	2	69	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	0	0	908	2	153

Table 12E-3. Direct Effects on Wildlife and Plants–Alternative 1A with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Tunnel/Pipeline Facilities Construction				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation		CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of recreational-related facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Riparian Restoration as Part of Tidal Natural Communities Restoration – Permanent (Acres)	Riparian Restoration as Part of Seasonal Floodplain Restoration – Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																			
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	3	27
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157	3	27
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	79	0	1
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	3	0	0	1	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,066	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	48	0	0	133	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	85	0	144
Total	86,263	48	0	0	133	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	85	0	144
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	319	0	89
Foraging	164,676	1,244	406	134	768	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,425	134	768
Total	188,594	1,286	686	134	858	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,747	134	858
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	30	0	0	17	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	412	0	104
Total	14,850	30	0	0	17	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	412	0	104
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,102	1,193	474	955	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	12,211	474	1,459
Nesting habitat	9,796	18	0	0	16	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	270	0	70
Total	487,675	2,120	1,193	474	971	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	12,481	474	1,529
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	639	57	162	182	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,353	162	266
Breeding habitat-foraging	60,828	214	0	151	35	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	931	151	189
Breeding habitat-nesting	1,935	9	0	0	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	78
Nonbreeding habitat-foraging ag	196,713	1,076	771	11	522	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	5,594	11	576
Nonbreeding habitat-roosting	28,067	23	0	0	9	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	593	0	9
Nonbreeding habitat-foraging	34,313	99	2	0	77	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	561	0	77
Total	424,040	2,059	831	325	827	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	10,053	325	1,194
Western burrowing owl																															0	0	0
High-value habitat	152,014	489	10	220	240	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	4,999	220	484
Low-value habitat	254,352	1,368	1,110	214	552	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	6,005	214	696
Total	406,366	1,857	1,120	434	792	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	11,004	434	1,180
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	29	0	5
Migratory habitat	10,425	23	0	0	14	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	300	0	97
Total	12,395	23	0	0	14	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	329	0	102
White-tailed kite																															0	0	0
Breeding habitat	14,069	29	0	0	20	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	341	0	107
Foraging habitat	507,922	2,104	1,196	474	957	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	12,035	474	1,474
Total	521,991	2,133	1,196	474	977	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	12,376	474	1,581
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	20	0	0	5	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	116	0	63
Secondary nesting and migratory habitat	5,528	10	0	0	12	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	220	0	12
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	30	0	0	17	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	412	0	104

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	27	0	0	21	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	37	0	23
Aquatic - nontidal	19,184	20	5	0	15	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	193	0	27
Upland-high	21,649	71	2	14	83	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	615	14	240
Upland-moderate	25,953	284	8	6	75	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	1,087	6	136
Upland-low	5,683	27	0	0	4	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	157	0	4
Total	84,567	427	15	20	198	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,089	20	432
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	7	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	66	1	17
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	79	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	132	0	101
Upland nesting and overwintering habitat	16,184	105	0	3	18	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	354	3	87
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	26	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	220	11	75
Total	110,530	209	1	14	122	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	706	14	264
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	4	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	36	1	7
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	7	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	7
Total	37,732	5	0	151	7	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	7
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	58	0	0	28	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	440	0	104
Nonriparian channels and grasslands	16,670	192	0	0	73	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	334	0	167
Total	34,456	251	0	0	100	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	774	0	271
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	286	32	2
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Delta mudwort total	6,081	23	0	0	12	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	31	0	14
Mason's lilaeopsis total	6,081	23	0	0	12	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	31	0	14
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	6	0	3
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Table 12E-4. Direct Effects on Wildlife and Plants – Alternative 1A with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	68	0	35
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	194	3	46
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	262	3	82
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	33
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	33
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	87	0	1
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0	0
Total	25,382	3	0	0	1	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,130	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	48	0	0	133	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	93	0	148
Total	86,263	48	0	0	133	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	93	0	148
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	360	0	89
Foraging	164,676	1,244	406	134	768	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	6,017	134	768
Total	188,594	1,286	686	134	858	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	6,380	134	858
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	30	0	0	17	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	687	0	125
Total	14,850	30	0	0	17	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	687	0	125
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,102	1,193	474	955	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	51,805	474	2,495
Nesting habitat	9,796	18	0	0	16	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	430	0	101
Total	487,675	2,120	1,193	474	971	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	52,235	474	2,596
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	639	57	162	182	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	10,221	162	541
Breeding habitat-foraging	60,828	214	0	151	35	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	44	35	2,205	151	219
Breeding habitat-nesting	1,935	9	0	0	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	82	0	80
Nonbreeding habitat-foraging ag	196,713	1,076	771	11	522	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	25,802	11	942
Nonbreeding habitat-roosting	28,067	23	0	0	9	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,666	0	10
Nonbreeding habitat-foraging	34,313	99	2	0	77	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,443	0	79
Total	424,040	2,059	831	325	827	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	41,418	325	1,872
Western burrowing owl																															0	0	0
High-value habitat	152,014	489	10	220	240	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	12,068	220	567
Low-value habitat	254,352	1,368	1,110	214	552	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	30,984	214	1,523
Total	406,366	1,857	1,120	434	792	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	43,052	434	2,090
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	142	0	10
Migratory habitat	10,425	23	0	0	14	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	405	0	108
Total	12,395	23	0	0	14	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	546	0	118
White-tailed kite																															0	0	0
Breeding habitat	14,069	29	0	0	20	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	537	0	141
Foraging habitat	507,922	2,104	1,196	474	957	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	55,975	474	2,442
Total	521,991	2,133	1,196	474	977	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	56,511	474	2,582
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	20	0	0	5	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	235	0	79
Secondary nesting and migratory habitat	5,528	10	0	0	12	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	367	0	17
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	30	0	0	17	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	687	0	125

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	27	0	0	21	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	1.5	0.0	2	3	0	0	0	0	0	0	38	0	26
Aquatic - nontidal	19,184	20	5	0	15	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	511	0	48
Upland-high	21,649	71	2	14	83	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	845	14	240
Upland-moderate	25,953	284	8	6	75	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,789	6	161
Upland-low	5,683	27	0	0	4	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	201	0	22
Total	84,567	427	15	20	198	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,383	20	497
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	7	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	162	1	18
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	79	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	163	0	122
Upland nesting and overwintering habitat	16,184	105	0	3	18	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	708	3	103
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	26	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	480	11	77
Total	110,530	209	1	14	122	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,351	14	302
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	4	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	120	1	8
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	29	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	30	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	7	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	7
Total	37,732	5	0	151	7	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	7
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	58	0	0	28	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	737	0	139
Nonriparian channels and grasslands	16,670	192	0	0	73	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	503	0	181
Total	34,456	251	0	0	100	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,240	0	320
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	713	32	3
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	28	0	8
Delta mudwort total	6,081	23	0	0	12	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	33	0	16
Mason's lilaeopsis total	6,081	23	0	0	12	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	33	0	16
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	7	0	3
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Table 12E-5. Indirect Effects–Alternative 1A [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	18	0	0	51	343	0	412
Grassland habitat	3,103	0	161	0	0	51	263	0	475
Total	6,011	0	179	0	0	102	606	0	887
Riparian woodrat								0	0
Habitat	2,166	0	2	0	0	18	256	0	276
Total	2,166	0	2	0	0	18	256	0	276
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	169	0	0	0	0	0	169
Total	5,327	0	169	0	0	0	0	0	169
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	113	0	5	364	0	0	483
Secondary habitat	17,915	0	2	0	0	428	2	0	433
Total	25,382	0	116	0	5	793	2	0	915
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	1,214	0	44	2,785	850	0	4,892
Total	86,263	0	1,214	0	44	2,785	850	0	4,892
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	219	0	0	0	0	0	219
Roosting and foraging - Temporary	16,579	0	1,427	0	0	174	0	0	1,600
Foraging	164,676	25	7,502	0	0	1,825	0	25	9,327
Total	188,594	25	9,148	0	0	1,999	0	25	11,146
Least Bell's vireo								0	0
Migratory and breeding	14,850	1	160	0	244	619	406	1	1,430
Total	14,850	1	160	0	244	619	406	1	1,430
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	1	6,786	0	2,275	6,013	3,201	1	18,274
Nesting habitat	9,796	0	129	0	255	361	470	0	1,215
Total	487,675	1	6,915	0	2,530	6,373	3,672	1	19,490
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	16	626	0	1,612	1,152	852	16	4,243
Breeding habitat-foraging	60,828	0	376	0	931	2,389	532	0	4,228
Breeding habitat-nesting	1,935	0	39	0	89	43	114	0	285
Nonbreeding habitat-foraging ag	196,713	4	7,563	0	38	2,856	1,604	4	12,061
Nonbreeding habitat-roosting	28,067	3	349	0	49	1,214	25	3	1,638
Nonbreeding habitat-foraging	34,313	2	788	0	0	1,324	33	2	2,145
Total	424,040	25	9,741	0	2,721	8,978	3,161	25	24,601
Western burrowing owl								0	0
High-value habitat	152,014	0	1,227	0	1,202	3,038	541	0	6,008
Low-value habitat	254,352	0	4,260	0	512	1,632	1,977	0	8,381
Total	406,366	0	5,487	0	1,714	4,671	2,518	0	14,389
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	8	0	24	98	66	0	196
Migratory habitat	10,425	1	132	0	220	398	318	1	1,068
Total	12,395	1	140	0	244	496	384	1	1,265
White-tailed kite								0	0
Breeding habitat	14,069	2	184	0	269	543	523	2	1,519
Foraging habitat	507,922	1	6,816	0	2,297	6,477	2,982	1	18,571
Total	521,991	2	6,999	0	2,566	7,020	3,505	2	20,091
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	1	66	0	80	388	272	1	806
Secondary nesting and migratory habitat	5,528	0	94	0	5	172	135	0	405
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	1	160	0	244	634	406	1	1,445
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	163	0	13	219	131	0	525
Aquatic - nontidal	19,184	0	88	0	133	103	22	0	346
Upland-high	21,649	0	279	0	242	372	0	0	893
Upland-moderate	25,953	0	344	0	125	773	314	0	1,556
Upland-low	5,683	0	57	0	1	150	279	0	487

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Total	84,567	0	931	0	516	1,616	745	0	3,808
Aquatic breeding, foraging, and movement (miles)	2,802	0	40	0	11	33	22	0	105
Western pond turtle								0	0
Aquatic habitat	81,666	0	599	0	150	1,856	619	0	3,224
Upland nesting and overwintering habitat	16,184	0	150	0	115	331	245	0	841
Upland nesting and overwintering habitat-NHD	12,680	0	122	0	37	243	30	0	432
Total	110,530	0	870	0	303	2,430	895	0	4,498
Aquatic habitat linear (miles) - NHD	1,425	0	16	0	1	14	3	0	35
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	147	0	0	0	0	0	147
Total	7,925	0	147	0	0	0	0	0	147
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	208	0	30	659	0	0	897
Total	37,732	0	208	0	30	861	0	0	1,098
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	89	0	56	125	200	0	471
Nonriparian channels and grasslands	16,670	0	223	0	85	261	210	0	778
Total	34,456	0	311	0	141	387	410	0	1,249
California linderiella								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Plants									
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	24	0	48	129	1	0	202
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	13	0	0	0	350	0	364
Delta mudwort total	6,081	0	86	0	10	261	122	0	480
Mason's lilaeopsis total	6,081	0	86	0	10	261	122	0	480
Delta tule pea total	5,853	0	6	0	0	420	1	0	428
Suisun Marsh aster total	5,853	0	6	0	0	420	1	0	428
Side-flowering skullcap total	2,497	0	12	0	1	80	12	0	105
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Legenere								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Dwarf downingia								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150

Alternative 1B

Table 12E-6. Direct Effects on Natural Communities–Alternative 1B with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	33	0	0	145	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	54	0	156
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	8	0	0	11	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	15	0	11
Valley/Foothill Riparian	17,966	51	0	2	37	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	438	2	125
Grassland	78,047	400	0	224	134	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,288	224	373
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	204	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	5	0	0	6	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	70	0	8
Nontidal Perennial Aquatic	5,567	19	0	0	5	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	76	0	17
Managed Wetland	70,798	6	0	0	18	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,748	0	62
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	7,451	435	10,543	2,008	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	16,242	10,543	2,371
Cropland	459,778	6,990	419	10,025	1,906	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	15,371	10,025	2,240
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	506	91	523	143	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	1,260	523	143
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	129	0	142	99	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	134	142	127
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	1,221	93	2,540	347	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,697	2,540	347
Grain sorghum	324	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Sudan	6,356	1	0	22	14	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	34
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	29	0	51	6	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	58	51	6
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	1,680	0	2,965	400	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	2,083	2,965	412
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	59	0	3	43	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	2,022	3	43
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	135	0	0
Non-irrigated native pasture	3,465	5	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	314	0	1
Misc. grasses	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turf farms	3,740	111	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0	40
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	59	0	53	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	143	53	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	494	0	458	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	494	458	70
Beans (green)	122	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	31	0	23	45	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	268	23	45
Onions/garlic	303	15	0	64	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	64	28
Potatoes	3,053	28	41	165	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	165	2
Tomatoes (processing)	31,366	474	24	788	158	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	1,038	788	207
Flowers, nursery, Christmas trees	114	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Misc. truck	1,585	35	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	158	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	3
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	1	0	16	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	16	5
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	420	0	188	93	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	539	188	173
Citrus and Sub-tropical	264	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	6	0	2
Vineyards	33,980	1,313	170	1,542	290	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	2,726	1,542	290
Native Vegetation	28,103	259	0	274	83	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	655	274	102
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	106	0	50	2	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108	50	15
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	461	16	518	102	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	871	518	131
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	31	0	21	7	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	38	21	7
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Farmsteads (without residence)	820	22	0	7	5	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	65	7	5
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	391	15	463	88	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	622	463	113
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	16	1	27	2	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	63	27	2
Developed	90,660	158	3	36	86	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	300	36	102

Table 12E-7. Direct Effects on Natural Communities–Alternative 1B with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	33	0	0	145	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	61	0	160
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	8	0	0	11	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	16	0	12
Valley/Foothill Riparian	17,966	51	0	2	37	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	735	2	160
Grassland	78,047	400	0	224	134	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	50	35	2,455	224	408
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Complex	12,133	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	375	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	5	0	0	6	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	130	0	8
Nontidal Perennial Aquatic	5,567	19	0	0	5	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	260	0	32
Managed Wetland	70,798	6	0	0	18	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,776	0	62
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	7,451	435	10,543	2,008	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	0	58,669	10,543	3,566
Cropland	459,778	6,990	419	10,025	1,906	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	0	54,612	10,025	3,349
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	9	0	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	506	91	523	143	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	0	3,576	523	215
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	129	0	142	99	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	0	1,743	142	195
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	1,221	93	2,540	347	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	0	5,554	2,540	492
Grain sorghum	324	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Sudan	6,356	1	0	22	14	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	136	22	34
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	0	2,300	0	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	29	0	51	6	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	0	128	51	8
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	1,680	0	2,965	400	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	0	14,769	2,965	745
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	59	0	3	43	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	0	3,574	3	64
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	0	1,551	0	7
Non-irrigated native pasture	3,465	5	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	0	325	0	3
Misc. grasses	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	0	24	0	4
Turf farms	3,740	111	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0	40
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	59	0	53	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	337	53	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	494	0	458	70	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	0	1,506	458	84
Beans (green)	122	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	228	0	7
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	31	0	23	45	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	0	951	23	110
Onions/garlic	303	15	0	64	28	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	21	64	28
Potatoes	3,053	28	41	165	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	165	2
Tomatoes (processing)	31,366	474	24	788	158	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	0	5,441	788	378
Flowers, nursery, Christmas trees	114	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	0	0
Misc. truck	1,585	35	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	0	294	0	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	158	3	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	0	255	158	10
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	1	0	16	5	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	0	129	16	8
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	420	0	188	93	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	1,277	188	182
Citrus and Sub-tropical	264	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	85	0	2
Vineyards	33,980	1,313	170	1,542	290	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	0	3,992	1,542	357
Native Vegetation	28,103	259	0	274	83	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	0	2,462	274	125
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	106	0	50	2	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	446	50	60
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non Cropland	27,328	461	16	518	102	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	0	4,058	518	217
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	31	0	21	7	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	0	128	21	12
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	0	12	0	3

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	22	0	7	5	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	0	0	119	7	8
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	391	15	463	88	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	0	0	3,409	463	179
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	16	1	27	2	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	0	238	27	11
Developed	90,660	158	3	36	86	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	0	0	965	36	170

Table 12E-8. Direct Effects on Wildlife and Plants–Alternative 1B with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
Grassland habitat	3,103	137	0	5	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137	5	25
Total	6,011	143	0	5	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143	5	30
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	172	0	151	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	175	151	14
Total	5,327	172	0	151	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	175	151	14
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	0	0	0	3	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	76	0	3
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	0	0	0	3	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,063	0	3
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	33	0	0	145	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	70	0	156
Total	86,263	33	0	0	145	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	70	0	156
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	148	0	642	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	642	91
Foraging	164,676	3,042	223	3,479	1,153	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	6,040	3,479	1,153
Total	188,594	3,190	223	4,122	1,244	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	6,188	4,122	1,244
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	24	0	0	30	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	406	0	117
Total	14,850	24	0	0	30	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	406	0	117
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	5,286	208	8,084	1,556	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	14,410	8,084	2,060
Nesting habitat	9,796	34	0	9	14	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	286	9	68
Total	487,675	5,320	208	8,093	1,570	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	14,696	8,093	2,128
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	1,005	0	1,071	126	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,662	1,071	210
Breeding habitat-foraging	60,828	198	0	154	29	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	915	154	184
Breeding habitat-nesting	1,935	7	0	0	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	78
Nonbreeding habitat-foraging ag	196,713	2,809	184	5,170	862	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	6,740	5,170	916
Nonbreeding habitat-roosting	28,067	16	0	0	35	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	586	0	35
Nonbreeding habitat-foraging	34,313	202	0	70	105	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	661	70	105
Total	424,040	4,237	184	6,465	1,160	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	11,585	6,465	1,528
Western burrowing owl																															0	0	0
High-value habitat	152,014	697	0	473	241	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	5,197	473	485
Low-value habitat	254,352	2,715	73	5,242	1,073	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	6,315	5,242	1,217
Total	406,366	3,413	73	5,715	1,314	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	11,512	5,715	1,703
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	3	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	32	0	5
Migratory habitat	10,425	15	0	0	26	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	293	0	109
Total	12,395	19	0	0	26	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	325	0	114
White-tailed kite																															0	0	0
Breeding habitat	14,069	40	0	9	30	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	351	9	118
Foraging habitat	507,922	5,267	208	8,065	1,529	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	14,211	8,065	2,045
Total	521,991	5,307	208	8,074	1,559	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	14,563	8,074	2,163
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	9	0	0	21	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	105	0	79
Secondary nesting and migratory habitat	5,528	15	0	0	8	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	224	0	8
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	24	0	0	30	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	406	0	117

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	20	0	0	51	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	31	0	53
Aquatic - nontidal	19,184	99	1	80	15	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	267	80	27
Upland-high	21,649	166	0	39	89	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	708	39	247
Upland-moderate	25,953	218	0	38	90	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	1,013	38	152
Upland-low	5,683	17	0	0	17	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	148	0	17
Total	84,567	519	1	156	262	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,166	156	496
Aquatic breeding, foraging, and movement (miles)	2,802	21	0	22	10	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	69	22	19
Western pond turtle																															0	0	0
Aquatic habitat	81,666	48	0	0	103	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	130	0	125
Upland nesting and overwintering habitat	16,184	108	0	11	21	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	357	11	91
Upland nesting and overwintering habitat-NHD	12,680	82	0	32	22	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	247	32	71
Total	110,530	238	0	43	146	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	735	43	287
Aquatic habitat linear (miles) - NHD	1,425	18	1	21	3	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	44	21	7
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	151	3
Total	7,925	6	0	151	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	151	3
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	13	0	151	3	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	305	151	3
Total	37,732	13	0	151	3	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	305	151	3
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	51	0	2	37	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	432	2	113
Nonriparian channels and grasslands	16,670	158	0	0	88	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	299	0	183
Total	34,456	209	0	2	125	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	732	2	296
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	286	32	2
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Delta mudwort total	6,081	13	0	0	26	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	21	0	28
Mason's lilaeopsis total	6,081	13	0	0	26	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	21	0	28
Delta tule pea total	5,853	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2
Suisun Marsh aster total	5,853	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2
Side-flowering skullcap total	2,497	2	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	5	0	6
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Table 12E-9. Direct Effects on Wildlife and Plants – Alternative 1B with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	5	0	0	5	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	67	0	40
Grassland habitat	3,103	137	0	5	25	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	181	5	45
Total	6,011	143	0	5	30	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	248	5	85
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	34
Total	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	34
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	172	0	151	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	180	151	14
Total	5,327	172	0	151	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	180	151	14
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	0	0	0	3	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	84	0	3
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0	0
Total	25,382	0	0	0	3	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,127	0	3
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	33	0	0	145	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	78	0	160
Total	86,263	33	0	0	145	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	78	0	160
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	148	0	642	91	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	189	642	91
Foraging	164,676	3,042	223	3,479	1,153	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	7,632	3,479	1,153
Total	188,594	3,190	223	4,122	1,244	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	7,821	4,122	1,244
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	24	0	0	30	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	680	0	138
Total	14,850	24	0	0	30	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	680	0	138
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	5,286	208	8,084	1,556	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	54,004	8,084	3,096
Nesting habitat	9,796	34	0	9	14	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	446	9	99
Total	487,675	5,320	208	8,093	1,570	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	54,450	8,093	3,196
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	1,005	0	1,071	126	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	10,531	1,071	485
Breeding habitat-foraging	60,828	198	0	154	29	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	44	35	2,189	154	214
Breeding habitat-nesting	1,935	7	0	0	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	81	0	80
Nonbreeding habitat-foraging ag	196,713	2,809	184	5,170	862	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	26,948	5,170	1,283
Nonbreeding habitat-roosting	28,067	16	0	0	35	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,659	0	37
Nonbreeding habitat-foraging	34,313	202	0	70	105	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,543	70	108
Total	424,040	4,237	184	6,465	1,160	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	42,950	6,465	2,205
Western burrowing owl																															0	0	0
High-value habitat	152,014	697	0	473	241	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	12,266	473	568
Low-value habitat	254,352	2,715	73	5,242	1,073	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	31,294	5,242	2,044
Total	406,366	3,413	73	5,715	1,314	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	43,560	5,715	2,613
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	3	0	0	0	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	145	0	10
Migratory habitat	10,425	15	0	0	26	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	397	0	120
Total	12,395	19	0	0	26	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	542	0	130
White-tailed kite																															0	0	0
Breeding habitat	14,069	40	0	9	30	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	547	9	151
Foraging habitat	507,922	5,267	208	8,065	1,529	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	58,151	8,065	3,013
Total	521,991	5,307	208	8,074	1,559	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	58,698	8,074	3,164
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	9	0	0	21	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	224	0	95
Secondary nesting and migratory habitat	5,528	15	0	0	8	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	372	0	14
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	24	0	0	30	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	681	0	138

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	20	0	0	51	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	32	0	55
Aquatic - nontidal	19,184	99	1	80	15	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	585	80	48
Upland-high	21,649	166	0	39	89	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	937	39	247
Upland-moderate	25,953	218	0	38	90	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,715	38	176
Upland-low	5,683	17	0	0	17	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	192	0	35
Total	84,567	519	1	156	262	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,461	156	561
Aquatic breeding, foraging, and movement (miles)	2,802	21	0	22	10	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	165	22	20
Western pond turtle																															0	0	0
Aquatic habitat	81,666	48	0	0	103	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	161	0	146
Upland nesting and overwintering habitat	16,184	108	0	11	21	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	712	11	106
Upland nesting and overwintering habitat-NHD	12,680	82	0	32	22	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	507	32	73
Total	110,530	238	0	43	146	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,380	43	326
Aquatic habitat linear (miles) - NHD	1,425	18	1	21	3	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	129	21	8
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	29	151	3
Total	7,925	6	0	151	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	30	151	3
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	13	0	151	3	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	647	151	3
Total	37,732	13	0	151	3	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	647	151	3
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	51	0	2	37	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	729	2	148
Nonriparian channels and grasslands	16,670	158	0	0	88	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	468	0	197
Total	34,456	209	0	2	125	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,198	2	345
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	713	32	3
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	28	0	8
Delta mudwort total	6,081	13	0	0	26	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	23	0	30
Mason's lilaeopsis total	6,081	13	0	0	26	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	23	0	30
Delta tule pea total	5,853	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	2
Suisun Marsh aster total	5,853	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	2
Side-flowering skullcap total	2,497	2	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	7	0	6
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Table 12E-10. Indirect Effects–Alternative 1B [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	21	0	0	51	343	0	415
Grassland habitat	3,103	0	175	0	0	51	263	0	489
Total	6,011	0	196	0	0	102	606	0	904
Riparian woodrat								0	0
Habitat	2,166	0	9	0	0	18	256	0	283
Total	2,166	0	9	0	0	18	256	0	283
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	170	0	0	0	0	0	170
Total	5,327	0	170	0	0	0	0	0	170
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	46	0	5	364	0	0	415
Secondary habitat	17,915	0	3	0	0	428	2	0	433
Total	25,382	0	49	0	5	793	2	0	849
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	1,034	0	44	2,785	850	0	4,712
Total	86,263	0	1,034	0	44	2,785	850	0	4,712
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	173	0	0	0	0	0	173
Roosting and foraging - Temporary	16,579	0	1,041	0	0	174	0	0	1,214
Foraging	164,676	62	6,522	0	0	1,825	0	62	8,347
Total	188,594	62	7,736	0	0	1,999	0	62	9,734
Least Bell's vireo								0	0
Migratory and breeding	14,850	1	240	0	244	619	406	1	1,510
Total	14,850	1	240	0	244	619	406	1	1,510
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	2	7,321	0	2,275	6,013	3,201	2	18,810
Nesting habitat	9,796	0	195	0	255	361	470	0	1,281
Total	487,675	2	7,516	0	2,530	6,373	3,672	2	20,091
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	8	702	0	1,612	1,152	852	8	4,319
Breeding habitat-foraging	60,828	0	397	0	931	2,389	532	0	4,250
Breeding habitat-nesting	1,935	0	37	0	89	43	114	0	283
Nonbreeding habitat-foraging ag	196,713	46	6,217	0	38	2,856	1,604	46	10,715
Nonbreeding habitat-roosting	28,067	3	263	0	49	1,214	25	3	1,552
Nonbreeding habitat-foraging	34,313	1	591	0	0	1,324	33	1	1,949
Total	424,040	58	8,208	0	2,721	8,978	3,161	58	23,067
Western burrowing owl								0	0
High-value habitat	152,014	0	1,028	0	1,202	3,038	541	0	5,809
Low-value habitat	254,352	0	3,860	0	512	1,632	1,977	0	7,981
Total	406,366	0	4,888	0	1,714	4,671	2,518	0	13,790
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	48	0	24	98	66	0	236
Migratory habitat	10,425	1	159	0	220	398	318	1	1,095
Total	12,395	1	206	0	244	496	384	1	1,331
White-tailed kite								0	0
Breeding habitat	14,069	2	273	0	269	543	523	2	1,608
Foraging habitat	507,922	2	7,213	0	2,297	6,477	2,982	2	18,969
Total	521,991	3	7,486	0	2,566	7,020	3,505	3	20,577
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	1	138	0	80	388	272	1	878
Secondary nesting and migratory habitat	5,528	0	103	0	5	172	135	0	414
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	1	241	0	244	634	406	1	1,526
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	145	0	13	219	131	0	507
Aquatic - nontidal	19,184	0	135	0	133	103	22	0	393
Upland-high	21,649	0	258	0	242	372	0	0	872
Upland-moderate	25,953	0	370	0	125	773	314	0	1,582
Upland-low	5,683	0	70	0	1	150	279	0	500
Total	84,567	0	978	0	516	1,616	745	0	3,855
Aquatic breeding, foraging, and movement (miles)	2,802	0	29	0	11	33	22	0	95
Western pond turtle								0	0
Aquatic habitat	81,666	0	432	0	150	1,856	619	0	3,057
Upland nesting and overwintering habitat	16,184	0	181	0	115	331	245	0	873
Upland nesting and overwintering habitat-NHD	12,680	0	95	0	37	243	30	0	406
Total	110,530	0	708	0	303	2,430	895	0	4,336
Aquatic habitat linear (miles) - NHD	1,425	0	17	0	1	14	3	0	36

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	147	0	0	0	0	0	147
Total	7,925	0	147	0	0	0	0	0	147
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	212	0	30	659	0	0	901
Total	37,732	0	212	0	30	861	0	0	1,102
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	65	0	56	125	200	0	447
Nonriparian channels and grasslands	16,670	0	159	0	85	261	210	0	715
Total	34,456	0	224	0	141	387	410	0	1,162
California linderiella								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Plants									
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	24	0	48	129	1	0	202
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	12	0	0	0	350	0	363
Delta mudwort total	6,081	0	82	0	10	261	122	0	476
Mason's lilaeopsis total	6,081	0	82	0	10	261	122	0	476
Delta tule pea total	5,853	0	6	0	0	420	1	0	427
Suisun Marsh aster total	5,853	0	6	0	0	420	1	0	427
Side-flowering skullcap total	2,497	0	12	0	1	80	12	0	106
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Legenere								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Dwarf downingia								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150

Alternative 1C

Table 12E-11. Direct Effects on Natural Communities–Alternative 1C with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	0	47	0	128
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	0	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	0	1
Valley/Foothill Riparian	17,966	40	0	3	83	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	426	3	171
Grassland	78,047	336	22	21	299	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,247	21	538
Alkali Seasonal Wetland Complex	3,723	13	0	1	8	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	71	1	8
Vernal Pool Complex	12,133	29	0	20	17	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	230	20	17
Other Natural Seasonal Wetland	842	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Nontidal Freshwater Perennial Emergent Wetland	1,509	0	0	0	5	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	65	0	6
Nontidal Perennial Aquatic	5,567	22	0	2	19	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	79	2	30
Managed Wetland	70,798	1	0	135	10	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,743	135	54
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	5,225	848	6,494	2,987	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	14,430	6,494	3,349
Cropland	459,778	4,918	831	6,187	2,848	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	13,711	6,187	3,182
Grain and Hay Crops	1,507	8	0	0	7	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	144	0	118
Wheat	4,731	367	0	229	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	367	229	61
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	425	0	556	183	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	1,088	556	183
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	340	176	566	38	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	521	566	65
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	679	327	760	277	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,388	760	277
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	110	0	241	3	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	241	23
Beans (dry)	6,025	6	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	3
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	105	0	65	91	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	133	65	91
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	1,014	0	851	406	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,417	851	418
Clover	41	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0
Mixed pasture	30,750	160	123	199	317	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	2,246	199	317
Non-irrigated mixed pasture	2,995	26	0	0	30	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	97	0	30
Native Pasture	8,376	32	10	2	25	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	177	2	25
Non-irrigated native pasture	3,465	27	11	13	45	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	347	13	46
Misc. grasses	422	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0
Turf farms	3,740	89	0	91	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	91	50
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	9	0	1	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	21
Rice	10,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	0
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beans (green)	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	141	0	222	81	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	377	222	81
Onions/garlic	303	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	202	25	410	165	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	766	410	214
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Misc. truck	1,585	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1
Bush berries	218	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Strawberries	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	86	0	47	191	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	206	47	271
Citrus and Sub-tropical	264	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	12	0	8
Vineyards	33,980	759	52	1,475	465	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	2,054	1,475	465
Native Vegetation	28,103	218	108	251	286	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	723	251	306
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	65	0	202	94	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	202	107
New lands being prepped for crop production	235	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0
Non Cropland	27,328	307	17	308	139	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	718	308	168
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	43	7	15	28	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	56	15	28
Livestock feedlots	180	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Farmsteads (without residence)	820	8	1	5	1	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	52	5	1
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	243	9	283	101	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	467	283	125
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	9	0	6	9	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	55	6	9
Developed	90,660	232	38	73	156	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	409	73	172

1 Table 12E-12. Direct Effects on Natural Communities–Alternative 1C with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Tunnel/Pipeline/Conveyance Facilities Construction				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation	CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of recreational-related facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	53	0	133
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	8	0	2
Valley/Foothill Riparian	17,966	40	0	3	83	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	723	3	206
Grassland	78,047	336	22	21	299	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	50	35	2,414	21	573
Alkali Seasonal Wetland Complex	3,723	13	0	1	8	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	85	1	8
Vernal Pool Complex	12,133	29	0	20	17	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	401	20	17
Other Natural Seasonal Wetland	842	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Nontidal Freshwater Perennial Emergent Wetland	1,509	0	0	0	5	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	125	0	6
Nontidal Perennial Aquatic	5,567	22	0	2	19	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	264	2	46
Managed Wetland	70,798	1	0	135	10	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,770	135	54
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	5,225	848	6,494	2,987	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	0	56,857	6,494	4,544
Cropland	459,778	4,918	831	6,187	2,848	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	0	52,952	6,187	4,290
Grain and Hay Crops	1,507	8	0	0	7	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	295	0	118
Wheat	4,731	367	0	229	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	376	229	61
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	425	0	556	183	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	0	3,405	556	254
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	340	176	566	38	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	0	2,130	566	134
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	679	327	760	277	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	0	5,245	760	422
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	110	0	241	3	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	245	241	23
Beans (dry)	6,025	6	0	0	3	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	0	2,306	0	43
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	105	0	65	91	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	0	204	65	93
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	1,014	0	851	406	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	0	14,103	851	750
Clover	41	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0
Mixed pasture	30,750	160	123	199	317	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	0	3,798	199	338
Non-irrigated mixed pasture	2,995	26	0	0	30	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	210	0	30
Native Pasture	8,376	32	10	2	25	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	0	1,593	2	31
Non-irrigated native pasture	3,465	27	11	13	45	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	0	357	13	48
Misc. grasses	422	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	0	33	0	4
Turf farms	3,740	89	0	91	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	91	50
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	9	0	1	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	21
Rice	10,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	0
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	0	1,012	0	14
Beans (green)	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	227	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	141	0	222	81	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	0	1,060	222	147
Onions/garlic	303	1	0	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	8	4	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	202	25	410	165	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	0	5,169	410	384
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	5	0	0
Misc. truck	1,585	4	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	0	263	0	2
Bush berries	218	1	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	23	0	0
Strawberries	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	0	255	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	0	128	0	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	86	0	47	191	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	944	47	280
Citrus and Sub-tropical	264	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	91	0	8
Vineyards	33,980	759	52	1,475	465	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	0	3,320	1,475	532
Native Vegetation	28,103	218	108	251	286	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	0	2,530	251	329
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	65	0	202	94	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	406	202	152
New lands being prepped for crop production	235	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	45	0	0
Non Cropland	27,328	307	17	308	139	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	0	3,905	308	254
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	43	7	15	28	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	0	147	15	33
Livestock feedlots	180	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	0	17	0	3
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Farmsteads (without residence)	820	8	1	5	1	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	0	0	106	5	5
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	243	9	283	101	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	0	0	3,254	283	191
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	9	0	6	9	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	0	230	6	18
Developed	90,660	232	38	73	156	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	0	0	1,074	73	240

Table 12E-13. Direct Effects on Wildlife and Plants–Alternative 1C with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Grassland habitat	3,103	41	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	0	39
Total	6,011	41	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	0	43
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	193	0	23	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	196	23	137
Total	5,327	193	0	23	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	196	23	137
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	0	0	0	5	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	76	0	5
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	0	0	0	5	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,062	0	5
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	62	0	128
Total	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	62	0	128
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Foraging	164,676	828	617	1,222	1,037	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,220	1,222	1,037
Total	188,594	828	617	1,222	1,038	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,220	1,222	1,038
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	14	0	2	42	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	396	2	130
Total	14,850	14	0	2	42	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	396	2	130
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	4,125	795	4,668	2,227	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	13,836	4,668	2,731
Nesting habitat	9,796	32	0	1	63	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	284	1	118
Total	487,675	4,157	795	4,670	2,291	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	14,120	4,670	2,849
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	1,274	0	1,401	541	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,932	1,401	624
Breeding habitat-foraging	60,828	230	0	23	167	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	947	23	322
Breeding habitat-nesting	1,935	3	0	2	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	2	79
Nonbreeding habitat-foraging ag	196,713	1,679	580	1,509	1,058	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	6,007	1,509	1,112
Nonbreeding habitat-roosting	28,067	0	0	0	11	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	570	0	11
Nonbreeding habitat-foraging	34,313	126	22	0	145	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	606	0	145
Total	424,040	3,312	602	2,936	1,925	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	11,078	2,936	2,293
Western burrowing owl																															0	0	0
High-value habitat	152,014	778	274	484	963	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	5,551	484	1,207
Low-value habitat	254,352	2,544	523	2,613	879	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	6,595	2,613	1,023
Total	406,366	3,322	797	3,096	1,841	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	12,146	3,096	2,230
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	29	0	5
Migratory habitat	10,425	13	0	2	33	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	290	2	116
Total	12,395	13	0	2	33	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	319	2	121
White-tailed kite																															0	0	0
Breeding habitat	14,069	33	0	3	68	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	345	3	156
Foraging habitat	507,922	3,992	795	4,447	2,156	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	13,523	4,447	2,673
Total	521,991	4,025	795	4,450	2,225	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	13,868	4,450	2,829
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	8	0	2	30	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	104	2	88
Secondary nesting and migratory habitat	5,528	6	0	0	12	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	215	0	12
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	14	0	2	42	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	396	2	130

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	7	0	0	26	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	18	0	28
Aquatic - nontidal	19,184	31	0	7	33	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	199	7	46
Upland-high	21,649	59	0	55	87	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	601	55	245
Upland-moderate	25,953	123	2	50	228	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	920	50	289
Upland-low	5,683	19	0	0	53	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	150	0	53
Total	84,567	239	2	113	426	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	1,887	113	660
Aquatic breeding, foraging, and movement (miles)	2,802	15	1	10	12	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	65	10	22
Western pond turtle																															0	0	0
Aquatic habitat	81,666	27	0	2	84	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	109	2	106
Upland nesting and overwintering habitat	16,184	69	2	2	83	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	320	2	152
Upland nesting and overwintering habitat-NHD	12,680	58	0	7	45	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	223	7	94
Total	110,530	154	2	11	212	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	652	11	353
Aquatic habitat linear (miles) - NHD	1,425	15	2	17	7	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	43	17	10
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Upland cover and dispersal habitat	7,766	61	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	69	0	10
Total	7,925	63	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	71	0	11
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Terrestrial cover and aestivation	29,459	70	0	0	8	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	362	0	8
Total	37,732	72	0	0	10	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	364	0	10
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	40	0	3	83	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	421	3	160
Nonriparian channels and grasslands	16,670	69	0	1	145	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	210	1	239
Total	34,456	109	0	5	228	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	631	5	399
California linderiella																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Plants																																	
Brittlescale total	451	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	73	6	31	33	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	331	31	34
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	57	0	40	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	40	33
Delta mudwort total	6,081	8	0	0	19	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	16	0	21
Mason's lilaeopsis total	6,081	8	0	0	19	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	16	0	21
Delta tule pea total	5,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Suisun Marsh aster total	5,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Side-flowering skullcap total	2,497	3	0	0	14	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	6	0	14
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Legenere																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19

Table 12E-14. Direct Effects on Wildlife and Plants – Alternative 1C with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																																0	0	0
Riparian habitat	2,909	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	62	0	39
Grassland habitat	3,103	41	0	0	39	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	84	0	59
Total	6,011	41	0	0	43	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	146	0	98
Riparian woodrat																																0	0	0
Habitat	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	34
Total	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	34
Salt marsh harvest mouse																																0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																																0	0	0
Breeding, foraging, and dispersal habitat	5,327	193	0	23	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	200	23	137
Total	5,327	193	0	23	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	200	23	137
Suisun shrew																																0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																																		
California black rail																																0	0	0
Primary habitat	7,467	0	0	0	5	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	83	0	5
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0	0
Total	25,382	0	0	0	5	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,127	0	5
California clapper rail																																0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																																0	0	0
Nesting and Migratory Habitat	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	71	0	133
Total	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	71	0	133
Greater sandhill crane																																0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	41	0	1
Foraging	164,676	828	617	1,222	1,037	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	5,812	1,222	1,037
Total	188,594	828	617	1,222	1,038	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	5,853	1,222	1,038
Least Bell's vireo																																0	0	0
Migratory and breeding	14,850	14	0	2	42	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	670	2	151
Total	14,850	14	0	2	42	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	670	2	151
Suisun song sparrow																																0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																																0	0	0
Foraging habitat	477,879	4,125	795	4,668	2,227	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	53,430	4,668	3,767
Nesting habitat	9,796	32	0	1	63	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	443	1	149
Total	487,675	4,157	795	4,670	2,291	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	53,874	4,670	3,916
Tricolored blackbird																																0	0	0
Breeding habitat-ag foraging	102,184	1,274	0	1,401	541	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	10,800	1,401	899
Breeding habitat-foraging	60,828	230	0	23	167	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	44	35	2,221	23	352
Breeding habitat-nesting	1,935	3	0	2	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	77	2	81
Nonbreeding habitat-foraging ag	196,713	1,679	580	1,509	1,058	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	26,215	1,509	1,479
Nonbreeding habitat-roosting	28,067	0	0	0	11	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,643	0	12
Nonbreeding habitat-foraging	34,313	126	22	0	145	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,488	0	148
Total	424,040	3,312	602	2,936	1,925	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	42,443	2,936	2,970
Western burrowing owl																																0	0	0
High-value habitat	152,014	778	274	484	963	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	12,621	484	1,290
Low-value habitat	254,352	2,544	523	2,613	879	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	31,573	2,613	1,849
Total	406,366	3,322	797	3,096	1,841	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	44,194	3,096	3,140
Western yellow-billed cuckoo																																0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	142	0	10
Migratory habitat	10,425	13	0	2	33	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	395	2	127
Total	12,395	13	0	2	33	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	537	2	137
White-tailed kite																																0	0	0
Breeding habitat	14,069	33	0	3	68	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	541	3	189
Foraging habitat	507,922	3,992	795	4,447	2,156	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	57,462	4,447	3,641
Total	521,991	4,025	795	4,450	2,225	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	58,003	4,450	3,830
Yellow-breasted chat																																0	0	0
Primary nesting and migratory habitat	8,178	8	0	2	30	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	223	2	103
Secondary nesting and migratory habitat	5,528	6	0	0	12	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	362	0	18
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	14	0	2	42	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	670	2	151

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	7	0	0	26	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	19	0	31
Aquatic - nontidal	19,184	31	0	7	33	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	517	7	67
Upland-high	21,649	59	0	55	87	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	831	55	245
Upland-moderate	25,953	123	2	50	228	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,622	50	313
Upland-low	5,683	19	0	0	53	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	194	0	71
Total	84,567	239	2	113	426	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,182	113	726
Aquatic breeding, foraging, and movement (miles)	2,802	15	1	10	12	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	160	10	23
Western pond turtle																															0	0	0
Aquatic habitat	81,666	27	0	2	84	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	140	2	128
Upland nesting and overwintering habitat	16,184	69	2	2	83	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	674	2	168
Upland nesting and overwintering habitat-NHD	12,680	58	0	7	45	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	482	7	96
Total	110,530	154	2	11	212	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,297	11	392
Aquatic habitat linear (miles) - NHD	1,425	15	2	17	7	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	127	17	11
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Upland cover and dispersal habitat	7,766	61	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	85	0	10
Total	7,925	63	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	87	0	11
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Terrestrial cover and aestivation	29,459	70	0	0	8	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	703	0	8
Total	37,732	72	0	0	10	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	706	0	10
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	40	0	3	83	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	718	3	195
Nonriparian channels and grasslands	16,670	69	0	1	145	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	379	1	253
Total	34,456	109	0	5	228	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,097	5	448
California linderiella																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Plants																																	
Brittlescale total	451	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	1
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	307	0	0
San Joaquin spearscale total	14,933	73	6	31	33	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	758	31	34
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	57	0	40	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	64	40	41
Delta mudwort total	6,081	8	0	0	19	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	18	0	23
Mason's lilaeopsis total	6,081	8	0	0	19	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	18	0	23
Delta tule pea total	5,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Suisun Marsh aster total	5,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Side-flowering skullcap total	2,497	3	0	0	14	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	8	0	15
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Legenere																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19

Table 12E-15. Indirect Effects–Alternative 1C [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	1	0	0	51	343	0	395
Grassland habitat	3,103	0	42	0	0	51	263	0	356
Total	6,011	0	42	0	0	102	606	0	750
Riparian woodrat								0	0
Habitat	2,166	0	0	0	0	18	256	0	274
Total	2,166	0	0	0	0	18	256	0	274
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	145	0	0	0	0	0	145
Total	5,327	0	145	0	0	0	0	0	145
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	13	0	5	364	0	0	382
Secondary habitat	17,915	0	0	0	0	428	2	0	431
Total	25,382	0	13	0	5	793	2	0	813
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	985	0	44	2,785	850	0	4,664
Total	86,263	0	985	0	44	2,785	850	0	4,664
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	235	0	0	174	0	0	408
Foraging	164,676	12	3,675	0	0	1,825	0	12	5,499
Total	188,594	12	3,909	0	0	1,999	0	12	5,908
Least Bell's vireo								0	0
Migratory and breeding	14,850	0	173	0	244	619	406	0	1,443
Total	14,850	0	173	0	244	619	406	0	1,443
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	0	7,392	0	2,275	6,013	3,201	0	18,881
Nesting habitat	9,796	0	180	0	255	361	470	0	1,266
Total	487,675	0	7,572	0	2,530	6,373	3,672	0	20,147
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	2	2,166	0	1,612	1,152	852	2	5,783
Breeding habitat-foraging	60,828	1	1,885	0	931	2,389	532	1	5,738
Breeding habitat-nesting	1,935	0	156	0	89	43	114	0	402
Nonbreeding habitat-foraging ag	196,713	21	4,875	0	38	2,856	1,604	21	9,373
Nonbreeding habitat-roosting	28,067	1	216	0	49	1,214	25	1	1,505
Nonbreeding habitat-foraging	34,313	2	685	0	0	1,324	33	2	2,042
Total	424,040	26	9,983	0	2,721	8,978	3,161	26	24,842
Western burrowing owl								0	0
High-value habitat	152,014	0	2,071	0	1,202	3,038	541	0	6,852
Low-value habitat	254,352	0	2,992	0	512	1,632	1,977	0	7,114
Total	406,366	0	5,063	0	1,714	4,671	2,518	0	13,966
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	0	0	24	98	66	0	188
Migratory habitat	10,425	0	123	0	220	398	318	0	1,059
Total	12,395	0	123	0	244	496	384	0	1,248
White-tailed kite								0	0
Breeding habitat	14,069	0	229	0	269	543	523	0	1,565
Foraging habitat	507,922	0	7,373	0	2,297	6,477	2,982	0	19,128
Total	521,991	0	7,602	0	2,566	7,020	3,505	0	20,693
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	118	0	80	388	272	0	858
Secondary nesting and migratory habitat	5,528	0	53	0	5	172	135	0	364
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	171	0	244	634	406	0	1,456
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	87	0	13	219	131	0	450
Aquatic - nontidal	19,184	0	74	0	133	103	22	0	332
Upland-high	21,649	0	288	0	242	372	0	0	902
Upland-moderate	25,953	0	391	0	125	773	314	0	1,603
Upland-low	5,683	0	74	0	1	150	279	0	504
Total	84,567	0	913	0	516	1,616	745	0	3,790
Aquatic breeding, foraging, and movement (miles)	2,802	0	28	0	11	33	22	0	93
Western pond turtle								0	0
Aquatic habitat	81,666	0	309	0	150	1,856	619	0	2,934
Upland nesting and overwintering habitat	16,184	0	140	0	115	331	245	0	832
Upland nesting and overwintering habitat-NHD	12,680	0	163	0	37	243	30	0	473
Total	110,530	0	612	0	303	2,430	895	0	4,239
Aquatic habitat linear (miles) - NHD	1,425	0	15	0	1	14	3	0	34

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	9	0	0	0	0	0	9
Upland cover and dispersal habitat	7,766	0	28	0	0	0	0	0	28
Total	7,925	0	37	0	0	0	0	0	37
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	74	0	0	201	0	0	275
Terrestrial cover and aestivation	29,459	0	305	0	30	659	0	0	994
Total	37,732	0	379	0	30	861	0	0	1,269
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	66	0	56	125	200	0	448
Nonriparian channels and grasslands	16,670	0	148	0	85	261	210	0	704
Total	34,456	0	214	0	141	387	410	0	1,151
California linderiella								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Plants									
Brittlescale total	451	0	1	0	0	3	0	0	3
Heartscale total	6,528	0	7	0	0	193	0	0	201
San Joaquin spearscale total	14,933	0	104	0	48	129	1	0	282
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	49	0	0	0	350	0	400
Delta mudwort total	6,081	0	58	0	10	261	122	0	451
Mason's lilaeopsis total	6,081	0	58	0	10	261	122	0	451
Delta tule pea total	5,853	0	2	0	0	420	1	0	423
Suisun Marsh aster total	5,853	0	2	0	0	420	1	0	423
Side-flowering skullcap total	2,497	0	29	0	1	80	12	0	122
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196
Legenere								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196
Dwarf downingia								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196

Alternative 2A

Table 12E-16. Direct Effects on Natural Communities–Alternative 2A with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	48	0	0	140	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	70	0	151
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	5	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0	5
Valley/Foothill Riparian	17,966	55	0	0	32	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	441	0	119
Grassland	78,047	320	2	151	120	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,211	151	359
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	204	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	66	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	70	0	20
Managed Wetland	70,798	3	0	75	8	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,745	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,311	1,539	972	1,711	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	12,207	972	2,074
Cropland	459,778	2,191	1,489	947	1,632	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	11,642	947	1,966
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	234	57	42	164	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	953	42	164
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	34	18	0	37	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	65
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	408	727	11	562	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,518	11	562
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	40	51	0
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	864	40	46	86	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,306	46	98
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	28	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	1,969	0	28
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	135	0	0
Non-irrigated native pasture	3,465	1	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	310	0	1
Misc. grasses	422	10	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	2
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331	0	8
Beans (green)	122	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	1	0	0	15	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	237	0	15
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	23	15	53	87	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	578	53	136
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	110	63	0	258	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	292	0	338
Citrus and Sub-tropical	264	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	5	0	1
Vineyards	33,980	233	215	645	218	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	1,690	645	218
Native Vegetation	28,103	173	18	70	143	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	587	70	163
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	6	15
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	120	50	26	79	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	565	26	108
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	18	4	0	12	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	28	0	12
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Farmsteads (without residence)	820	14	2	0	4	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	60	0	4
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	81	38	25	57	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	335	25	82
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	4	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	58	0	5
Developed	90,660	85	18	2	64	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	241	2	81

Table 12E-17. Direct Effects on Natural Communities–Alternative 2A with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	48	0	0	140	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	76	0	156
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	14	0	6
Valley/Foothill Riparian	17,966	55	0	0	32	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	738	0	154
Grassland	78,047	320	2	151	120	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	50	35	2,378	151	394
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	375	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	126	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	254	0	36
Managed Wetland	70,798	3	0	75	8	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,773	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,311	1,539	972	1,711	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	0	54,634	972	3,268
Cropland	459,778	2,191	1,489	947	1,632	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	0	50,883	947	3,074
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	9	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	234	57	42	164	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	0	3,270	42	236
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	34	18	0	37	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	0	1,665	0	133
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	408	727	11	562	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	0	5,374	11	707
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	135	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	0	2,300	0	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	0	110	51	2
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	864	40	46	86	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	0	13,992	46	431
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	28	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	0	3,521	0	49
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	0	1,551	0	6
Non-irrigated native pasture	3,465	1	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	0	320	0	3
Misc. grasses	422	10	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	0	35	0	6
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	0	1,343	0	22
Beans (green)	122	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	228	0	8
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	1	0	0	15	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	0	921	0	81
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	6	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	23	15	53	87	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	0	4,981	53	306
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	0	259	0	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	0	255	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	0	128	0	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	110	63	0	258	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	1,030	0	348
Citrus and Sub-tropical	264	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	83	0	1
Vineyards	33,980	233	215	645	218	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	0	2,956	645	285
Native Vegetation	28,103	173	18	70	143	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	0	2,394	70	186
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	420	6	60
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non Cropland	27,328	120	50	26	79	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	0	3,751	26	194
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	18	4	0	12	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	0	119	0	17
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	0	12	0	3

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	14	2	0	4	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	0	0	114	0	8
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	81	38	25	57	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	0	0	3,122	25	148
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	4	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	0	233	0	13
Developed	90,660	85	18	2	64	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	0	0	906	2	148

Table 12E-18. Direct Effects on Wildlife and Plants–Alternative 2A with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1
Grassland habitat	3,103	151	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151	3	27
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157	3	27
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	79	0	1
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	3	0	0	1	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,066	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	48	0	0	140	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	85	0	151
Total	86,263	48	0	0	140	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	85	0	151
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	319	0	89
Foraging	164,676	1,227	406	134	1,009	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,408	134	1,009
Total	188,594	1,269	686	134	1,099	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,730	134	1,099
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	28	0	0	18	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	106
Total	14,850	28	0	0	18	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	106
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,086	1,193	474	1,215	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	12,196	474	1,719
Nesting habitat	9,796	18	0	0	18	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	270	0	72
Total	487,675	2,104	1,193	474	1,233	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	12,465	474	1,791
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	639	57	162	182	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,353	162	266
Breeding habitat-foraging	60,828	214	0	151	35	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	931	151	189
Breeding habitat-nesting	1,935	9	0	0	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	78
Nonbreeding habitat-foraging ag	196,713	1,058	771	11	771	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	5,576	11	825
Nonbreeding habitat-roosting	28,067	24	0	0	11	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	594	0	11
Nonbreeding habitat-foraging	34,313	106	2	0	86	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	567	0	86
Total	424,040	2,049	831	325	1,087	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	10,043	325	1,454
Western burrowing owl																															0	0	0
High-value habitat	152,014	488	10	220	270	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	4,998	220	515
Low-value habitat	254,352	1,360	1,110	214	773	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	5,997	214	917
Total	406,366	1,848	1,120	434	1,043	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	10,995	434	1,432
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	29	0	5
Migratory habitat	10,425	21	0	0	16	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	298	0	99
Total	12,395	21	0	0	16	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	327	0	103
White-tailed kite																															0	0	0
Breeding habitat	14,069	29	0	0	24	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	341	0	111
Foraging habitat	507,922	2,087	1,196	474	1,203	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	12,019	474	1,719
Total	521,991	2,116	1,196	474	1,226	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	12,360	474	1,830
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	18	0	0	7	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	114	0	65
Secondary nesting and migratory habitat	5,528	10	0	0	11	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	220	0	11
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	28	0	0	18	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	106

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	27	0	0	22	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	38	0	24
Aquatic - nontidal	19,184	20	5	0	15	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	193	0	27
Upland-high	21,649	82	2	14	85	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	626	14	243
Upland-moderate	25,953	282	8	6	77	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	1,085	6	138
Upland-low	5,683	28	0	0	5	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	158	0	5
Total	84,567	439	15	20	204	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,100	20	438
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	8	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	66	1	17
Western pond turtle																															0	0	0
Aquatic habitat	81,666	50	0	0	80	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	132	0	103
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	354	3	87
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	25	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	220	11	74
Total	110,530	209	1	14	122	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	706	14	263
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	4	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	36	1	8
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	6	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	6
Total	37,732	5	0	151	6	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	6
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	55	0	0	32	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	436	0	108
Nonriparian channels and grasslands	16,670	200	0	0	76	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	341	0	170
Total	34,456	254	0	0	108	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	777	0	278
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	286	32	2
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Delta mudwort total	6,081	24	0	0	12	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	31	0	14
Mason's lilaeopsis total	6,081	24	0	0	12	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	31	0	14
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	1	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	4	0	2
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Table 12E-19. Direct Effects on Wildlife and Plants – Alternative 2A with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	68	0	35
Grassland habitat	3,103	151	0	3	27	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	194	3	46
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	263	3	82
Riparian woodrat																													0		0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	33
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	33
Salt marsh harvest mouse																													0		0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																													0		0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Suisun shrew																													0		0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																													0				
California black rail																													0		0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	87	0	1
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0	0
Total	25,382	3	0	0	1	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,130	0	1
California clapper rail																													0		0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																													0		0	0	0
Nesting and Migratory Habitat	86,263	48	0	0	140	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	94	0	156
Total	86,263	48	0	0	140	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	94	0	156
Greater sandhill crane																													0		0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	360	0	89
Foraging	164,676	1,227	406	134	1,009	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	6,000	134	1,009
Total	188,594	1,269	686	134	1,099	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	6,363	134	1,099
Least Bell's vireo																													0		0	0	0
Migratory and breeding	14,850	28	0	0	18	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	684	0	127
Total	14,850	28	0	0	18	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	684	0	127
Suisun song sparrow																													0		0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																													0		0	0	0
Foraging habitat	477,879	2,086	1,193	474	1,215	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	51,790	474	2,755
Nesting habitat	9,796	18	0	0	18	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	429	0	103
Total	487,675	2,104	1,193	474	1,233	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	52,219	474	2,858
Tricolored blackbird																													0		0	0	0
Breeding habitat-ag foraging	102,184	639	57	162	182	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	10,221	162	541
Breeding habitat-foraging	60,828	214	0	151	35	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	44	35	2,205	151	219
Breeding habitat-nesting	1,935	9	0	0	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	82	0	80
Nonbreeding habitat-foraging ag	196,713	1,058	771	11	771	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	25,784	11	1,192
Nonbreeding habitat-roosting	28,067	24	0	0	11	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,666	0	12
Nonbreeding habitat-foraging	34,313	106	2	0	86	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,449	0	89
Total	424,040	2,049	831	325	1,087	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	41,408	325	2,132
Western burrowing owl																													0		0	0	0
High-value habitat	152,014	488	10	220	270	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	12,067	220	598
Low-value habitat	254,352	1,360	1,110	214	773	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	30,976	214	1,743
Total	406,366	1,848	1,120	434	1,043	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	43,043	434	2,341
Western yellow-billed cuckoo																													0		0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	142	0	10
Migratory habitat	10,425	21	0	0	16	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	403	0	110
Total	12,395	21	0	0	16	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	544	0	120
White-tailed kite																													0		0	0	0
Breeding habitat	14,069	29	0	0	24	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	536	0	145
Foraging habitat	507,922	2,087	1,196	474	1,203	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	55,958	474	2,687
Total	521,991	2,116	1,196	474	1,226	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	56,495	474	2,832
Yellow-breasted chat																													0		0	0	0
Primary nesting and migratory habitat	8,178	18	0	0	7	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	233	0	81
Secondary nesting and migratory habitat	5,528	10	0	0	11	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	367	0	17
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	28	0	0	18	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	684	0	127

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																														0				
Giant garter snake																														0	0	0	0	
Aquatic - tidal	12,097	27	0	0	22	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	39	0	26
Aquatic - nontidal	19,184	20	5	0	15	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	511	0	48
Upland-high	21,649	82	2	14	85	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	856	14	243
Upland-moderate	25,953	282	8	6	77	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,786	6	163
Upland-low	5,683	28	0	0	5	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	203	0	23
Total	84,567	439	15	20	204	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,395	20	503
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	8	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	162	1	18
Western pond turtle																														0	0	0	0	
Aquatic habitat	81,666	50	0	0	80	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	163	0	124
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	708	3	102
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	25	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	480	11	76
Total	110,530	209	1	14	122	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,351	14	302
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	4	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	120	1	9
Amphibians																														0				
California red-legged frog																														0	0	0	0	
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	29	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	30	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																														0	0	0	0	
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	6	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	6
Total	37,732	5	0	151	6	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	6
Invertebrates																													0				
Valley elderberry longhorn beetle																													0		0	0	0
Riparian vegetation	17,786	55	0	0	32	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	733	0	143
Nonriparian channels and grasslands	16,670	200	0	0	76	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	511	0	185
Total	34,456	254	0	0	108	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,244	0	328
California linderiella																													0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Conservancy fairy shrimp																													0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Longhorn fairy shrimp																													0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Midvalley fairy shrimp																													0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool fairy shrimp																													0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool tadpole shrimp																													0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	713	32	3
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	28	0	8
Delta mudwort total	6,081	24	0	0	12	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	33	0	16
Mason's lilaeopsis total	6,081	24	0	0	12	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	33	0	16
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	1	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	5	0	2
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																													0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Legenere																													0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																													0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Boggs Lake hedge-hyssop																													0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Dwarf downingia																													0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Table 12E-20. Indirect Effects–Alternative 2A [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	18	0	0	51	343	0	412
Grassland habitat	3,103	0	162	0	0	51	263	0	476
Total	6,011	0	180	0	0	102	606	0	888
Riparian woodrat								0	0
Habitat	2,166	0	2	0	0	18	256	0	276
Total	2,166	0	2	0	0	18	256	0	276
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	169	0	0	0	0	0	169
Total	5,327	0	169	0	0	0	0	0	169
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	117	0	5	364	0	0	487
Secondary habitat	17,915	0	2	0	0	428	2	0	433
Total	25,382	0	120	0	5	793	2	0	919
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	1,243	0	44	2,785	850	0	4,922
Total	86,263	0	1,243	0	44	2,785	850	0	4,922
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	219	0	0	0	0	0	219
Roosting and foraging - Temporary	16,579	0	1,451	0	0	174	0	0	1,625
Foraging	164,676	30	8,435	0	0	1,825	0	30	10,260
Total	188,594	30	10,105	0	0	1,999	0	30	12,104
Least Bell's vireo								0	0
Migratory and breeding	14,850	0	166	0	244	619	406	0	1,436
Total	14,850	0	166	0	244	619	406	0	1,436
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	0	7,456	0	2,275	6,013	3,201	0	18,945
Nesting habitat	9,796	0	134	0	255	361	470	0	1,220
Total	487,675	0	7,590	0	2,530	6,373	3,672	0	20,165
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	16	657	0	1,612	1,152	852	16	4,274
Breeding habitat-foraging	60,828	0	388	0	931	2,389	532	0	4,240
Breeding habitat-nesting	1,935	0	39	0	89	43	114	0	285
Nonbreeding habitat-foraging ag	196,713	8	8,449	0	38	2,856	1,604	8	12,947
Nonbreeding habitat-roosting	28,067	0	355	0	49	1,214	25	0	1,644
Nonbreeding habitat-foraging	34,313	5	801	0	0	1,324	33	5	2,158
Total	424,040	29	10,689	0	2,721	8,978	3,161	29	25,549
Western burrowing owl								0	0
High-value habitat	152,014	0	1,375	0	1,202	3,038	541	0	6,156
Low-value habitat	254,352	0	4,668	0	512	1,632	1,977	0	8,790
Total	406,366	0	6,044	0	1,714	4,671	2,518	0	14,946
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	8	0	24	98	66	0	196
Migratory habitat	10,425	0	134	0	220	398	318	0	1,070
Total	12,395	0	142	0	244	496	384	0	1,267
White-tailed kite								0	0
Breeding habitat	14,069	0	190	0	269	543	523	0	1,526
Foraging habitat	507,922	0	7,477	0	2,297	6,477	2,982	0	19,233
Total	521,991	0	7,668	0	2,566	7,020	3,505	0	20,759
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	72	0	80	388	272	0	811
Secondary nesting and migratory habitat	5,528	0	95	0	5	172	135	0	406
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	166	0	244	634	406	0	1,451
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	169	0	13	219	131	0	532
Aquatic - nontidal	19,184	0	90	0	133	103	22	0	348
Upland-high	21,649	0	286	0	242	372	0	0	900
Upland-moderate	25,953	0	355	0	125	773	314	0	1,567
Upland-low	5,683	0	58	0	1	150	279	0	488
Total	84,567	0	958	0	516	1,616	745	0	3,835
Aquatic breeding, foraging, and movement (miles)	2,802	0	40	0	11	33	22	0	105
Western pond turtle								0	0
Aquatic habitat	81,666	0	598	0	150	1,856	619	0	3,224
Upland nesting and overwintering habitat	16,184	0	149	0	115	331	245	0	841
Upland nesting and overwintering habitat-NHD	12,680	0	120	0	37	243	30	0	431
Total	110,530	0	868	0	303	2,430	895	0	4,495
Aquatic habitat linear (miles) - NHD	1,425	0	17	0	1	14	3	0	35

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	147	0	0	0	0	0	147
Total	7,925	0	147	0	0	0	0	0	147
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	206	0	30	659	0	0	895
Total	37,732	0	206	0	30	861	0	0	1,096
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	92	0	56	125	200	0	474
Nonriparian channels and grasslands	16,670	0	222	0	85	261	210	0	777
Total	34,456	0	314	0	141	387	410	0	1,251
California linderiella								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Plants									
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	24	0	48	129	1	0	202
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	13	0	0	0	350	0	364
Delta mudwort total	6,081	0	91	0	10	261	122	0	484
Mason's lilaeopsis total	6,081	0	91	0	10	261	122	0	484
Delta tule pea total	5,853	0	6	0	0	420	1	0	428
Suisun Marsh aster total	5,853	0	6	0	0	420	1	0	428
Side-flowering skullcap total	2,497	0	13	0	1	80	12	0	106
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149
Legenere								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149
Dwarf downingia								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1

Alternative 2B

Table 12E-21. Direct Effects on Natural Communities–Alternative 2B with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Tidal Perennial Aquatic	86,263	34	0	0	171	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	55	0	182
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	8	0	0	16	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	15	0	16
Valley/Foothill Riparian	17,966	48	0	2	54	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	434	2	142
Grassland	78,047	406	0	224	158	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,295	224	397
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	204	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	5	0	0	7	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	70	0	8
Nontidal Perennial Aquatic	5,567	19	0	0	5	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	76	0	17
Managed Wetland	70,798	6	0	0	20	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,748	0	64
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	7,450	435	10,543	2,504	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	16,242	10,543	2,867
Cropland	459,778	6,989	419	10,025	2,389	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	15,371	10,025	2,722
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	508	91	523	194	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	1,261	523	194
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	122	0	142	64	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	142	91
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	1,228	93	2,540	512	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,704	2,540	512
Grain sorghum	324	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Sudan	6,356	1	0	22	14	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	34
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	29	0	51	6	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	58	51	6
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	1,668	0	2,965	416	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	2,070	2,965	428
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	24	0	3	0	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	1,988	3	0
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	135	0	0
Non-irrigated native pasture	3,465	0	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	309	0	1
Misc. grasses	422	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Turf farms	3,740	111	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0	40
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	59	0	53	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	143	53	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	494	0	458	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	494	458	70
Beans (green)	122	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	31	0	23	45	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	268	23	45
Onions/garlic	303	15	0	64	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	64	28
Potatoes	3,053	28	41	165	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	165	2
Tomatoes (processing)	31,366	477	24	788	226	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	1,040	788	275
Flowers, nursery, Christmas trees	114	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Misc. truck	1,585	35	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	158	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	3
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	1	0	16	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	16	5
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	431	0	188	164	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	550	188	244
Citrus and Sub-tropical	264	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	6	0	1
Vineyards	33,980	1,316	170	1,542	400	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	2,729	1,542	400
Native Vegetation	28,103	294	0	274	145	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	690	274	165
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	106	0	50	2	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108	50	15
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	461	16	518	116	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	871	518	144
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	34	0	21	14	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	40	21	14
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	23	0	7	5	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	66	7	5
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	388	15	463	95	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	619	463	120
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	16	1	27	2	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	63	27	2
Developed	90,660	154	3	36	81	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	296	36	97

Table 12E-22. Direct Effects on Natural Communities–Alternative 2B with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Tidal Perennial Aquatic	86,263	34	0	0	171	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	62	0	187
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	8	0	0	16	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	16	0	17
Valley/Foothill Riparian	17,966	48	0	2	54	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	731	2	177
Grassland	78,047	406	0	224	158	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	0	50	2,462	224	431
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Complex	12,133	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	375	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	5	0	0	7	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	130	0	8
Nontidal Perennial Aquatic	5,567	19	0	0	5	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	260	0	32
Managed Wetland	70,798	6	0	0	20	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,776	0	64
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	7,450	435	10,543	2,504	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	0	58,669	10,543	4,061
Cropland	459,778	6,989	419	10,025	2,389	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	0	54,611	10,025	3,831
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	9	0	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	508	91	523	194	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	0	3,578	523	265
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	122	0	142	64	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	0	1,736	142	160
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	1,228	93	2,540	512	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	0	5,560	2,540	657
Grain sorghum	324	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Sudan	6,356	1	0	22	14	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	136	22	34
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	0	2,300	0	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	29	0	51	6	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	0	128	51	8
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	1,668	0	2,965	416	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	0	14,756	2,965	760
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	24	0	3	0	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	0	3,540	3	21
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	0	1,551	0	7
Non-irrigated native pasture	3,465	0	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	0	319	0	3
Misc. grasses	422	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	0	24	0	23
Turf farms	3,740	111	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0	40
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	59	0	53	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	337	53	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	494	0	458	70	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	0	1,506	458	84
Beans (green)	122	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	228	0	7
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	31	0	23	45	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	0	951	23	110
Onions/garlic	303	15	0	64	28	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	21	64	28
Potatoes	3,053	28	41	165	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	165	2
Tomatoes (processing)	31,366	477	24	788	226	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	0	5,443	788	445
Flowers, nursery, Christmas trees	114	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	0	0
Misc. truck	1,585	35	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	0	294	0	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	158	3	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	0	255	158	10
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	1	0	16	5	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	0	129	16	8
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	431	0	188	164	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	1,288	188	253
Citrus and Sub-tropical	264	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	85	0	1
Vineyards	33,980	1,316	170	1,542	400	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	0	3,995	1,542	467
Native Vegetation	28,103	294	0	274	145	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	0	2,497	274	188
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	106	0	50	2	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	446	50	60
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non Cropland	27,328	461	16	518	116	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	0	4,058	518	230
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	34	0	21	14	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	0	130	21	19
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	0	12	0	3
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	23	0	7	5	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	0	0	120	7	8
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	388	15	463	95	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	0	0	3,406	463	186
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	16	1	27	2	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	0	238	27	11
Developed	90,660	154	3	36	81	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	0	0	961	36	165

Table 12E-23. Direct Effects on Wildlife and Plants–Alternative 2B with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
Grassland habitat	3,103	138	0	5	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138	5	25
Total	6,011	143	0	5	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143	5	30
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	172	0	151	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	175	151	14
Total	5,327	172	0	151	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	175	151	14
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	0	0	0	4	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	76	0	4
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	0	0	0	4	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,063	0	4
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	34	0	0	171	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	71	0	182
Total	86,263	34	0	0	171	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	71	0	182
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	151	0	642	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151	642	180
Foraging	164,676	3,022	223	3,479	1,367	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	6,020	3,479	1,367
Total	188,594	3,173	223	4,122	1,547	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	6,171	4,122	1,547
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	22	0	0	43	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	404	0	130
Total	14,850	22	0	0	43	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	404	0	130
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	5,269	208	8,084	1,859	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	14,393	8,084	2,363
Nesting habitat	9,796	34	0	9	25	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	286	9	79
Total	487,675	5,303	208	8,093	1,884	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	14,679	8,093	2,442
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	1,005	0	1,071	126	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,662	1,071	210
Breeding habitat-foraging	60,828	198	0	154	29	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	915	154	184
Breeding habitat-nesting	1,935	7	0	0	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	78
Nonbreeding habitat-foraging ag	196,713	2,792	184	5,170	1,119	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	6,724	5,170	1,172
Nonbreeding habitat-roosting	28,067	17	0	0	48	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	587	0	48
Nonbreeding habitat-foraging	34,313	208	0	70	128	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	667	70	128
Total	424,040	4,228	184	6,465	1,453	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	11,576	6,465	1,820
Western burrowing owl																															0	0	0
High-value habitat	152,014	698	0	473	306	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	5,197	473	551
Low-value habitat	254,352	2,706	73	5,242	1,285	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	6,307	5,242	1,429
Total	406,366	3,404	73	5,715	1,591	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	11,504	5,715	1,980
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	4	0	0	3	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	32	0	7
Migratory habitat	10,425	13	0	0	36	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	291	0	119
Total	12,395	17	0	0	38	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	323	0	126
White-tailed kite																															0	0	0
Breeding habitat	14,069	40	0	9	46	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	351	9	133
Foraging habitat	507,922	5,251	208	8,065	1,834	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	14,195	8,065	2,351
Total	521,991	5,290	208	8,074	1,880	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	14,546	8,074	2,484
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	7	0	0	33	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	103	0	91
Secondary nesting and migratory habitat	5,528	15	0	0	10	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	225	0	10
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	22	0	0	43	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	404	0	130

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	21	0	0	64	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	32	0	67
Aquatic - nontidal	19,184	99	1	80	15	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	267	80	27
Upland-high	21,649	176	0	39	102	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	719	39	260
Upland-moderate	25,953	216	0	38	99	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	1,011	38	160
Upland-low	5,683	19	0	0	24	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	149	0	24
Total	84,567	531	1	156	304	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,178	156	538
Aquatic breeding, foraging, and movement (miles)	2,802	21	0	22	12	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	69	22	22
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	129	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	131	0	152
Upland nesting and overwintering habitat	16,184	108	0	11	22	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	357	11	91
Upland nesting and overwintering habitat-NHD	12,680	83	0	32	24	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	248	32	74
Total	110,530	240	0	43	175	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	736	43	317
Aquatic habitat linear (miles) - NHD	1,425	19	1	21	4	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	44	21	7
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	151	3
Total	7,925	6	0	151	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	151	3
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	13	0	151	3	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	305	151	3
Total	37,732	13	0	151	3	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	305	151	3
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	48	0	2	54	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	429	2	130
Nonriparian channels and grasslands	16,670	165	0	0	95	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	306	0	189
Total	34,456	212	0	2	149	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	735	2	320
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	34	0	32	3	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	286	32	3
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Delta mudwort total	6,081	14	0	0	30	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	22	0	32
Mason's lilaeopsis total	6,081	14	0	0	30	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	22	0	32
Delta tule pea total	5,853	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2
Suisun Marsh aster total	5,853	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2
Side-flowering skullcap total	2,497	1	0	0	6	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	4	0	6
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	203	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Table 12E-24. Direct Effects on Wildlife and Plants – Alternative 2B with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	5	0	0	5	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	67	0	40
Grassland habitat	3,103	138	0	5	25	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	181	5	45
Total	6,011	143	0	5	30	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	248	5	85
Riparian woodrat																													0		0	0	0
Habitat	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	34
Total	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	34
Salt marsh harvest mouse																													0		0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																													0		0	0	0
Breeding, foraging, and dispersal habitat	5,327	172	0	151	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	180	151	14
Total	5,327	172	0	151	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	180	151	14
Suisun shrew																													0		0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																													0				
California black rail																													0		0	0	0
Primary habitat	7,467	0	0	0	4	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	84	0	4
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0	0
Total	25,382	0	0	0	4	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,127	0	4
California clapper rail																													0		0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																													0		0	0	0
Nesting and Migratory Habitat	86,263	34	0	0	171	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	79	0	187
Total	86,263	34	0	0	171	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	79	0	187
Greater sandhill crane																													0		0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	151	0	642	180	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	192	642	180
Foraging	164,676	3,022	223	3,479	1,367	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	7,612	3,479	1,367
Total	188,594	3,173	223	4,122	1,547	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	7,804	4,122	1,547
Least Bell's vireo																													0		0	0	0
Migratory and breeding	14,850	22	0	0	43	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	678	0	151
Total	14,850	22	0	0	43	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	678	0	151
Suisun song sparrow																													0		0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																													0		0	0	0
Foraging habitat	477,879	5,269	208	8,084	1,859	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	53,988	8,084	3,399
Nesting habitat	9,796	34	0	9	25	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	445	9	110
Total	487,675	5,303	208	8,093	1,884	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	54,433	8,093	3,509
Tricolored blackbird																													0		0	0	0
Breeding habitat-ag foraging	102,184	1,005	0	1,071	126	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	10,531	1,071	485
Breeding habitat-foraging	60,828	198	0	154	29	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	44	35	2,189	154	214
Breeding habitat-nesting	1,935	7	0	0	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	81	0	80
Nonbreeding habitat-foraging ag	196,713	2,792	184	5,170	1,119	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	26,931	5,170	1,539
Nonbreeding habitat-roosting	28,067	17	0	0	48	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,660	0	49
Nonbreeding habitat-foraging	34,313	208	0	70	128	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,549	70	131
Total	424,040	4,228	184	6,465	1,453	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	42,941	6,465	2,498
Western burrowing owl																													0		0	0	0
High-value habitat	152,014	698	0	473	306	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	12,267	473	634
Low-value habitat	254,352	2,706	73	5,242	1,285	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	31,285	5,242	2,256
Total	406,366	3,404	73	5,715	1,591	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	43,552	5,715	2,889
Western yellow-billed cuckoo																													0		0	0	0
Breeding habitat	1,970	4	0	0	3	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	145	0	13
Migratory habitat	10,425	13	0	0	36	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	395	0	130
Total	12,395	17	0	0	38	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	540	0	142
White-tailed kite																													0		0	0	0
Breeding habitat	14,069	40	0	9	46	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	547	9	167
Foraging habitat	507,922	5,251	208	8,065	1,834	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	58,134	8,065	3,319
Total	521,991	5,290	208	8,074	1,880	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	58,681	8,074	3,485
Yellow-breasted chat																													0		0	0	0
Primary nesting and migratory habitat	8,178	7	0	0	33	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	222	0	106
Secondary nesting and migratory habitat	5,528	15	0	0	10	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	372	0	16
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	22	0	0	43	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	679	0	151

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																														0				
Giant garter snake																														0		0	0	0
Aquatic - tidal	12,097	21	0	0	64	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	33	0	69
Aquatic - nontidal	19,184	99	1	80	15	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	585	80	48
Upland-high	21,649	176	0	39	102	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	948	39	260
Upland-moderate	25,953	216	0	38	99	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,713	38	184
Upland-low	5,683	19	0	0	24	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	193	0	42
Total	84,567	531	1	156	304	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,473	156	604
Aquatic breeding, foraging, and movement (miles)	2,802	21	0	22	12	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	165	22	23
Western pond turtle																														0		0	0	0
Aquatic habitat	81,666	49	0	0	129	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	163	0	173
Upland nesting and overwintering habitat	16,184	108	0	11	22	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	712	11	107
Upland nesting and overwintering habitat-NHD	12,680	83	0	32	24	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	507	32	76
Total	110,530	240	0	43	175	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,381	43	355
Aquatic habitat linear (miles) - NHD	1,425	19	1	21	4	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	129	21	8
Amphibians																														0				
California red-legged frog																														0		0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	29	151	3
Total	7,925	6	0	151	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	30	151	3
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																														0		0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	13	0	151	3	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	647	151	3
Total	37,732	13	0	151	3	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	647	151	3
Invertebrates																														0				
Valley elderberry longhorn beetle																														0		0	0	0
Riparian vegetation	17,786	48	0	2	54	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	726	2	165
Nonriparian channels and grasslands	16,670	165	0	0	95	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	475	0	204
Total	34,456	212	0	2	149	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,201	2	369
California linderiella																														0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Conservancy fairy shrimp																														0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Longhorn fairy shrimp																														0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Midvalley fairy shrimp																														0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool fairy shrimp																														0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool tadpole shrimp																														0		0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Plants																																		
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	0
San Joaquin spearscale total	14,933	34	0	32	3	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	713	32	3
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	28	0	8
Delta mudwort total	6,081	14	0	0	30	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	24	0	34
Mason's lilaeopsis total	6,081	14	0	0	30	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	24	0	34
Delta tule pea total	5,853	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	2
Suisun Marsh aster total	5,853	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	2
Side-flowering skullcap total	2,497	1	0	0	6	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	5	0	7
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																		
Alkali milk-vetch																														0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Legenere																														0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																													0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Boggs Lake hedge-hyssop																													0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Dwarf downingia																													0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	3	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	4	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Table 12E-25. Indirect Effects–Alternative 2B [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	21	0	0	51	343	0	415
Grassland habitat	3,103	0	176	0	0	51	263	0	490
Total	6,011	0	197	0	0	102	606	0	905
Riparian woodrat								0	0
Habitat	2,166	0	9	0	0	18	256	0	283
Total	2,166	0	9	0	0	18	256	0	283
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	170	0	0	0	0	0	170
Total	5,327	0	170	0	0	0	0	0	170
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	49	0	5	364	0	0	418
Secondary habitat	17,915	0	4	0	0	428	2	0	434
Total	25,382	0	52	0	5	793	2	0	852
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	1,049	0	44	2,785	850	0	4,728
Total	86,263	0	1,049	0	44	2,785	850	0	4,728
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	173	0	0	0	0	0	173
Roosting and foraging - Temporary	16,579	0	1,148	0	0	174	0	0	1,322
Foraging	164,676	70	7,417	0	0	1,825	0	70	9,242
Total	188,594	70	8,738	0	0	1,999	0	70	10,736
Least Bell's vireo								0	0
Migratory and breeding	14,850	0	246	0	244	619	406	0	1,516
Total	14,850	0	246	0	244	619	406	0	1,516
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	1	8,009	0	2,275	6,013	3,201	1	19,498
Nesting habitat	9,796	0	200	0	255	361	470	0	1,286
Total	487,675	1	8,209	0	2,530	6,373	3,672	1	20,784
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	8	733	0	1,612	1,152	852	8	4,350
Breeding habitat-foraging	60,828	0	409	0	931	2,389	532	0	4,262
Breeding habitat-nesting	1,935	0	37	0	89	43	114	0	283
Nonbreeding habitat-foraging ag	196,713	52	7,055	0	38	2,856	1,604	52	11,553
Nonbreeding habitat-roosting	28,067	0	274	0	49	1,214	25	0	1,563
Nonbreeding habitat-foraging	34,313	4	608	0	0	1,324	33	4	1,965
Total	424,040	64	9,117	0	2,721	8,978	3,161	64	23,977
Western burrowing owl								0	0
High-value habitat	152,014	0	1,134	0	1,202	3,038	541	0	5,915
Low-value habitat	254,352	0	4,260	0	512	1,632	1,977	0	8,381
Total	406,366	0	5,394	0	1,714	4,671	2,518	0	14,296
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	43	0	24	98	66	0	231
Migratory habitat	10,425	0	165	0	220	398	318	0	1,102
Total	12,395	0	208	0	244	496	384	0	1,333
White-tailed kite								0	0
Breeding habitat	14,069	0	281	0	269	543	523	0	1,617
Foraging habitat	507,922	1	7,904	0	2,297	6,477	2,982	1	19,660
Total	521,991	1	8,186	0	2,566	7,020	3,505	1	21,277
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	142	0	80	388	272	0	882
Secondary nesting and migratory habitat	5,528	0	104	0	5	172	135	0	415
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	247	0	244	634	406	0	1,532
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	159	0	13	219	131	0	522
Aquatic - nontidal	19,184	0	136	0	133	103	22	0	394
Upland-high	21,649	0	270	0	242	372	0	0	884
Upland-moderate	25,953	0	380	0	125	773	314	0	1,592
Upland-low	5,683	0	73	0	1	150	279	0	503
Total	84,567	0	1,018	0	516	1,616	745	0	3,895
Aquatic breeding, foraging, and movement (miles)	2,802	0	30	0	11	33	22	0	96
Western pond turtle								0	0
Aquatic habitat	81,666	0	448	0	150	1,856	619	0	3,073
Upland nesting and overwintering habitat	16,184	0	183	0	115	331	245	0	875
Upland nesting and overwintering habitat-NHD	12,680	0	96	0	37	243	30	0	407
Total	110,530	0	727	0	303	2,430	895	0	4,355
Aquatic habitat linear (miles) - NHD	1,425	0	18	0	1	14	3	0	36

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	147	0	0	0	0	0	147
Total	7,925	0	147	0	0	0	0	0	147
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	212	0	30	659	0	0	901
Total	37,732	0	212	0	30	861	0	0	1,102
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	66	0	56	125	200	0	448
Nonriparian channels and grasslands	16,670	0	163	0	85	261	210	0	718
Total	34,456	0	229	0	141	387	410	0	1,167
California linderiella								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	14	0	0	45	0	0	59
Total	12,320	0	15	0	0	135	0	0	150
Plants									
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	24	0	48	129	1	0	202
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	12	0	0	0	350	0	363
Delta mudwort total	6,081	0	89	0	10	261	122	0	482
Mason's lilaeopsis total	6,081	0	89	0	10	261	122	0	482
Delta tule pea total	5,853	0	6	0	0	420	1	0	428
Suisun Marsh aster total	5,853	0	6	0	0	420	1	0	428
Side-flowering skullcap total	2,497	0	13	0	1	80	12	0	106
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Legenere								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Dwarf downingia								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	14	0	0	18	0	0	32
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150

Alternative 2C

1 Table 12E-26. Direct Effects on Natural Communities–Alternative 2C with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Tidal Perennial Aquatic	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	47	0	128
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	0	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	7	0	1
Valley/Foothill Riparian	17,966	40	0	3	83	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	426	3	171
Grassland	78,047	337	22	21	299	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,247	21	538
Alkali Seasonal Wetland Complex	3,723	13	0	1	8	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	71	1	8
Vernal Pool Complex	12,133	29	0	20	17	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	230	20	17
Other Natural Seasonal Wetland	842	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Nontidal Freshwater Perennial Emergent Wetland	1,509	0	0	0	5	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	65	0	6
Nontidal Perennial Aquatic	5,567	22	0	2	19	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	79	2	30
Managed Wetland	70,798	1	0	135	10	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,743	135	54
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	5,225	848	6,494	2,987	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	14,430	6,494	3,349
Cropland	459,778	4,918	831	6,187	2,848	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	13,711	6,187	3,182
Grain and Hay Crops	1,507	8	0	0	7	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	144	0	118
Wheat	4,731	367	0	229	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	367	229	61
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	425	0	556	183	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	1,088	556	183
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	340	176	566	38	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	521	566	65
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	679	327	760	277	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,388	760	277
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	110	0	241	3	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	241	23
Beans (dry)	6,025	6	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	3
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	105	0	65	91	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	133	65	91
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	1,014	0	851	406	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,417	851	418
Clover	41	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0
Mixed pasture	30,750	160	123	199	317	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	2,246	199	317
Non-irrigated mixed pasture	2,995	26	0	0	30	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	97	0	30
Native Pasture	8,376	32	10	2	25	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	177	2	25
Non-irrigated native pasture	3,465	27	11	13	45	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	347	13	46
Misc. grasses	422	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0
Turf farms	3,740	89	0	91	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	91	50
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	9	0	1	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	21
Rice	10,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	0
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beans (green)	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	141	0	222	81	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	377	222	81
Onions/garlic	303	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	202	25	410	165	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	766	410	214
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Misc. truck	1,585	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1
Bush berries	218	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Strawberries	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	86	0	47	191	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	206	47	271
Citrus and Sub-tropical	264	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	12	0	8
Vineyards	33,980	759	52	1,475	465	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	2,054	1,475	465
Native Vegetation	28,103	218	108	251	286	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	723	251	306
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	65	0	202	94	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	202	107
New lands being prepped for crop production	235	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0
Non Cropland	27,328	307	17	308	139	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	718	308	168
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	43	7	15	28	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	56	15	28
Livestock feedlots	180	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	8	1	5	1	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	52	5	1
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	243	9	283	101	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	467	283	125
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	9	0	6	9	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	55	6	9
Developed	90,660	232	38	73	156	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	409	73	172

Table 12E-27. Direct Effects on Natural Communities–Alternative 2C with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Tidal Perennial Aquatic	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	53	0	133
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	8	0	2
Valley/Foothill Riparian	17,966	40	0	3	83	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	723	3	206
Grassland	78,047	337	22	21	299	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	50	35	2,414	21	573
Alkali Seasonal Wetland Complex	3,723	13	0	1	8	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	85	1	8
Vernal Pool Complex	12,133	29	0	20	17	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	401	20	17
Other Natural Seasonal Wetland	842	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Nontidal Freshwater Perennial Emergent Wetland	1,509	0	0	0	5	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	125	0	6
Nontidal Perennial Aquatic	5,567	22	0	2	19	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	264	2	46
Managed Wetland	70,798	1	0	135	10	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,770	135	54
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	5,225	848	6,494	2,987	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	0	56,857	6,494	4,544
Cropland	459,778	4,918	831	6,187	2,848	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	0	52,952	6,187	4,290
Grain and Hay Crops	1,507	8	0	0	7	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	295	0	118
Wheat	4,731	367	0	229	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	376	229	61
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	425	0	556	183	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	0	3,405	556	254
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	340	176	566	38	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	0	2,130	566	134
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	679	327	760	277	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	0	5,245	760	422
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	110	0	241	3	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	245	241	23
Beans (dry)	6,025	6	0	0	3	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	0	2,306	0	43
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	105	0	65	91	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	0	204	65	93
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	1,014	0	851	406	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	0	14,103	851	750
Clover	41	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0
Mixed pasture	30,750	160	123	199	317	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	0	3,798	199	338
Non-irrigated mixed pasture	2,995	26	0	0	30	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	210	0	30
Native Pasture	8,376	32	10	2	25	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	0	1,593	2	31
Non-irrigated native pasture	3,465	27	11	13	45	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	0	357	13	48
Misc. grasses	422	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	0	33	0	4
Turf farms	3,740	89	0	91	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	91	50
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	9	0	1	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	21
Rice	10,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	0
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	0	1,012	0	14
Beans (green)	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	227	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	141	0	222	81	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	0	1,060	222	147
Onions/garlic	303	1	0	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	8	4	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	202	25	410	165	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	0	5,169	410	384
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	5	0	0
Misc. truck	1,585	4	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	0	263	0	2
Bush berries	218	1	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	23	0	0
Strawberries	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	0	255	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	0	128	0	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	86	0	47	191	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	944	47	280
Citrus and Sub-tropical	264	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	91	0	8
Vineyards	33,980	759	52	1,475	465	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	0	3,320	1,475	532
Native Vegetation	28,103	218	108	251	286	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	0	2,530	251	329
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	65	0	202	94	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	406	202	152
New lands being prepped for crop production	235	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	45	0	0
Non Cropland	27,328	307	17	308	139	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	0	3,905	308	254
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	43	7	15	28	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	0	147	15	33
Livestock feedlots	180	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	0	17	0	3

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	8	1	5	1	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0		0	106	5	5
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	243	9	283	101	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0		0	3,254	283	191
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0		0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	4
Other Ag Lands	2,097	9	0	6	9	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0		0	230	6	18
Developed	90,660	232	38	73	156	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0		0	1,074	73	240

Table 12E-28. Direct Effects on Wildlife and Plants–Alternative 2C with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Grassland habitat	3,103	41	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	0	39
Total	6,011	41	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	0	43
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	193	0	23	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	196	23	137
Total	5,327	193	0	23	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	196	23	137
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	0	0	0	5	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	76	0	5
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	0	0	0	5	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,062	0	5
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	62	0	128
Total	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	62	0	128
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Foraging	164,676	828	617	1,222	1,037	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,220	1,222	1,037
Total	188,594	828	617	1,222	1,038	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,220	1,222	1,038
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	14	0	2	42	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	396	2	130
Total	14,850	14	0	2	42	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	396	2	130
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	4,125	795	4,668	2,227	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	13,836	4,668	2,731
Nesting habitat	9,796	32	0	1	63	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	284	1	118
Total	487,675	4,157	795	4,670	2,291	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	14,120	4,670	2,849
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	1,274	0	1,401	541	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,932	1,401	624
Breeding habitat-foraging	60,828	230	0	23	167	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	947	23	322
Breeding habitat-nesting	1,935	3	0	2	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	2	79
Nonbreeding habitat-foraging ag	196,713	1,679	580	1,509	1,058	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	6,007	1,509	1,112
Nonbreeding habitat-roosting	28,067	0	0	0	11	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	570	0	11
Nonbreeding habitat-foraging	34,313	126	22	0	145	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	606	0	145
Total	424,040	3,313	602	2,936	1,925	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	11,078	2,936	2,293
Western burrowing owl																															0	0	0
High-value habitat	152,014	778	274	484	963	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	5,552	484	1,207
Low-value habitat	254,352	2,544	523	2,613	879	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	6,595	2,613	1,023
Total	406,366	3,322	797	3,096	1,841	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	12,146	3,096	2,230
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	29	0	5
Migratory habitat	10,425	13	0	2	33	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	290	2	116
Total	12,395	13	0	2	33	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	319	2	121
White-tailed kite																															0	0	0
Breeding habitat	14,069	33	0	3	68	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	345	3	156
Foraging habitat	507,922	3,992	795	4,447	2,156	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	13,523	4,447	2,673
Total	521,991	4,025	795	4,450	2,225	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	13,868	4,450	2,829
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	8	0	2	30	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	104	2	88
Secondary nesting and migratory habitat	5,528	6	0	0	12	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	215	0	12
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	14	0	2	42	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	396	2	130

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	7	0	0	26	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	18	0	28
Aquatic - nontidal	19,184	31	0	7	33	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	199	7	46
Upland-high	21,649	59	0	55	87	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	601	55	245
Upland-moderate	25,953	123	2	50	228	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	920	50	289
Upland-low	5,683	19	0	0	53	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	150	0	53
Total	84,567	239	2	113	427	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	1,888	113	661
Aquatic breeding, foraging, and movement (miles)	2,802	15	1	10	12	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	65	10	22
Western pond turtle																															0	0	0
Aquatic habitat	81,666	27	0	2	84	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	109	2	106
Upland nesting and overwintering habitat	16,184	69	2	2	83	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	320	2	152
Upland nesting and overwintering habitat-NHD	12,680	58	0	7	45	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	223	7	94
Total	110,530	154	2	11	212	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	652	11	353
Aquatic habitat linear (miles) - NHD	1,425	15	2	17	7	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	43	17	10
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Upland cover and dispersal habitat	7,766	61	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	69	0	10
Total	7,925	63	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	71	0	11
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Terrestrial cover and aestivation	29,459	70	0	0	8	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	362	0	8
Total	37,732	72	0	0	10	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	364	0	10
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	40	0	3	83	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	421	3	160
Nonriparian channels and grasslands	16,670	69	0	1	145	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	211	1	239
Total	34,456	109	0	5	228	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	631	5	399
California linderiella																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Plants																																	
Brittlescale total	451	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	73	6	31	33	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	331	31	34
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	57	0	40	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	40	33
Delta mudwort total	6,081	8	0	0	19	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	16	0	21
Mason's lilaeopsis total	6,081	8	0	0	19	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	16	0	21
Delta tule pea total	5,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Suisun Marsh aster total	5,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Side-flowering skullcap total	2,497	3	0	0	14	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	6	0	14
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Legenere																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	243	20	19

Table 12E-29. Direct Effects on Wildlife and Plants – Alternative 2C with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Tunnel/Pipeline Facilities Construction				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation		CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of recreational-related facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	62	0	39
Grassland habitat	3,103	41	0	0	39	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	85	0	59
Total	6,011	41	0	0	43	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	146	0	98
Riparian woodrat																													0		0	0	0
Habitat	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	34
Total	2,166	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	34
Salt marsh harvest mouse																													0		0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																													0		0	0	0
Breeding, foraging, and dispersal habitat	5,327	193	0	23	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	200	23	137
Total	5,327	193	0	23	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	200	23	137
Suisun shrew																													0		0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																													0				
California black rail																													0		0	0	0
Primary habitat	7,467	0	0	0	5	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	83	0	5
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0	0
Total	25,382	0	0	0	5	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,127	0	5
California clapper rail																													0		0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																													0		0	0	0
Nesting and Migratory Habitat	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	71	0	133
Total	86,263	25	0	0	117	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	71	0	133
Greater sandhill crane																													0		0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	41	0	1
Foraging	164,676	828	617	1,222	1,037	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	5,812	1,222	1,037
Total	188,594	828	617	1,222	1,038	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	5,853	1,222	1,038
Least Bell's vireo																													0		0	0	0
Migratory and breeding	14,850	14	0	2	42	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	670	2	151
Total	14,850	14	0	2	42	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	670	2	151
Suisun song sparrow																													0		0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																													0		0	0	0
Foraging habitat	477,879	4,125	795	4,668	2,227	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	53,431	4,668	3,767
Nesting habitat	9,796	32	0	1	63	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	443	1	149
Total	487,675	4,157	795	4,670	2,291	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	53,874	4,670	3,916
Tricolored blackbird																													0		0	0	0
Breeding habitat-ag foraging	102,184	1,274	0	1,401	541	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	10,800	1,401	899
Breeding habitat-foraging	60,828	230	0	23	167	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	44	35	2,221	23	352
Breeding habitat-nesting	1,935	3	0	2	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	77	2	81
Nonbreeding habitat-foraging ag	196,713	1,679	580	1,509	1,058	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	26,215	1,509	1,479
Nonbreeding habitat-roosting	28,067	0	0	0	11	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,643	0	12
Nonbreeding habitat-foraging	34,313	126	22	0	145	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,488	0	148
Total	424,040	3,313	602	2,936	1,925	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	42,443	2,936	2,970
Western burrowing owl																													0		0	0	0
High-value habitat	152,014	778	274	484	963	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	12,621	484	1,290
Low-value habitat	254,352	2,544	523	2,613	879	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	31,573	2,613	1,849
Total	406,366	3,322	797	3,096	1,841	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	44,194	3,096	3,140
Western yellow-billed cuckoo																													0		0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	142	0	10
Migratory habitat	10,425	13	0	2	33	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	395	2	127
Total	12,395	13	0	2	33	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	537	2	137
White-tailed kite																													0		0	0	0
Breeding habitat	14,069	33	0	3	68	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	541	3	189
Foraging habitat	507,922	3,992	795	4,447	2,156	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	57,462	4,447	3,641
Total	521,991	4,025	795	4,450	2,225	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	58,003	4,450	3,830
Yellow-breasted chat																													0		0	0	0
Primary nesting and migratory habitat	8,178	8	0	2	30	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	223	2	103
Secondary nesting and migratory habitat	5,528	6	0	0	12	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	362	0	18
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	14	0	2	42	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	670	2	151

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																													0				
Giant garter snake																													0		0	0	0
Aquatic - tidal	12,097	7	0	0	26	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	19	0	31
Aquatic - nontidal	19,184	31	0	7	33	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	517	7	67
Upland-high	21,649	59	0	55	87	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	831	55	245
Upland-moderate	25,953	123	2	50	228	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,622	50	313
Upland-low	5,683	19	0	0	53	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	194	0	71
Total	84,567	239	2	113	427	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,182	113	726
Aquatic breeding, foraging, and movement (miles)	2,802	15	1	10	12	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	160	10	23
Western pond turtle																													0		0	0	0
Aquatic habitat	81,666	27	0	2	84	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	140	2	128
Upland nesting and overwintering habitat	16,184	69	2	2	83	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	674	2	168
Upland nesting and overwintering habitat-NHD	12,680	58	0	7	45	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	482	7	96
Total	110,530	154	2	11	212	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,297	11	392
Aquatic habitat linear (miles) - NHD	1,425	15	2	17	7	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	127	17	11
Amphibians																													0				
California red-legged frog																													0		0	0	0
Aquatic habitat	159	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Upland cover and dispersal habitat	7,766	61	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	85	0	10
Total	7,925	63	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	87	0	11
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																													0		0	0	0
Aquatic breeding habitat	8,273	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Terrestrial cover and aestivation	29,459	70	0	0	8	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	703	0	8
Total	37,732	72	0	0	10	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	706	0	10
Invertebrates																													0				
Valley elderberry longhorn beetle																													0		0	0	0
Riparian vegetation	17,786	40	0	3	83	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	718	3	195
Nonriparian channels and grasslands	16,670	69	0	1	145	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	380	1	253
Total	34,456	109	0	5	228	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,098	5	448
California linderiella																													0		0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Conservancy fairy shrimp																													0		0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Longhorn fairy shrimp																													0		0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Midvalley fairy shrimp																													0		0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Vernal pool fairy shrimp																													0		0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Vernal pool tadpole shrimp																													0		0	0	0
Vernal pool complex	9,607	42	0	20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	20	13
Degraded vernal pool complex	2,713	0	0	0	5	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	5
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Plants																																	
Brittlescale total	451	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	1
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	307	0	0
San Joaquin spearscale total	14,933	73	6	31	33	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	758	31	34
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	57	0	40	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	64	40	41
Delta mudwort total	6,081	8	0	0	19	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	18	0	23
Mason's lilaeopsis total	6,081	8	0	0	19	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	18	0	23
Delta tule pea total	5,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Suisun Marsh aster total	5,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Side-flowering skullcap total	2,497	3	0	0	14	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	8	0	15
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																													0		0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Legenere																													0		0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																													0		0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Boggs Lake hedge-hyssop																													0		0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19
Dwarf downingia																													0		0	0	0
Vernal pool complex	9,557	29	0	20	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	20	11
Degraded vernal pool complex	2,576	0	0	0	5	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	5
Alkali seasonal wetland	188	13	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	2
Total	12,320	42	0	20	19	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	413	20	19

Table 12E-30. Indirect Effects–Alternative 2C [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	1	0	0	51	343	0	395
Grassland habitat	3,103	0	42	0	0	51	263	0	356
Total	6,011	0	43	0	0	102	606	0	751
Riparian woodrat								0	0
Habitat	2,166	0	0	0	0	18	256	0	274
Total	2,166	0	0	0	0	18	256	0	274
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	145	0	0	0	0	0	145
Total	5,327	0	145	0	0	0	0	0	145
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	13	0	5	364	0	0	382
Secondary habitat	17,915	0	0	0	0	428	2	0	431
Total	25,382	0	13	0	5	793	2	0	813
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	985	0	44	2,785	850	0	4,664
Total	86,263	0	985	0	44	2,785	850	0	4,664
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	235	0	0	174	0	0	408
Foraging	164,676	12	3,675	0	0	1,825	0	12	5,499
Total	188,594	12	3,909	0	0	1,999	0	12	5,908
Least Bell's vireo								0	0
Migratory and breeding	14,850	0	173	0	244	619	406	0	1,443
Total	14,850	0	173	0	244	619	406	0	1,443
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	0	7,413	0	2,275	6,013	3,201	0	18,901
Nesting habitat	9,796	0	180	0	255	361	470	0	1,266
Total	487,675	0	7,593	0	2,530	6,373	3,672	0	20,168
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	2	2,197	0	1,612	1,152	852	2	5,814
Breeding habitat-foraging	60,828	1	1,897	0	931	2,389	532	1	5,750
Breeding habitat-nesting	1,935	0	156	0	89	43	114	0	402
Nonbreeding habitat-foraging ag	196,713	21	4,875	0	38	2,856	1,604	21	9,373
Nonbreeding habitat-roosting	28,067	1	216	0	49	1,214	25	1	1,505
Nonbreeding habitat-foraging	34,313	2	685	0	0	1,324	33	2	2,042
Total	424,040	26	10,026	0	2,721	8,978	3,161	26	24,886
Western burrowing owl								0	0
High-value habitat	152,014	0	2,075	0	1,202	3,038	541	0	6,856
Low-value habitat	254,352	0	3,001	0	512	1,632	1,977	0	7,122
Total	406,366	0	5,076	0	1,714	4,671	2,518	0	13,978
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	0	0	24	98	66	0	188
Migratory habitat	10,425	0	123	0	220	398	318	0	1,059
Total	12,395	0	123	0	244	496	384	0	1,248
White-tailed kite								0	0
Breeding habitat	14,069	0	229	0	269	543	523	0	1,565
Foraging habitat	507,922	0	7,391	0	2,297	6,477	2,982	0	19,147
Total	521,991	0	7,621	0	2,566	7,020	3,505	0	20,712
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	118	0	80	388	272	0	858
Secondary nesting and migratory habitat	5,528	0	53	0	5	172	135	0	364
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	171	0	244	634	406	0	1,456
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	87	0	13	219	131	0	450
Aquatic - nontidal	19,184	0	74	0	133	103	22	0	332
Upland-high	21,649	0	288	0	242	372	0	0	902
Upland-moderate	25,953	0	395	0	125	773	314	0	1,607
Upland-low	5,683	0	74	0	1	150	279	0	504
Total	84,567	0	917	0	516	1,616	745	0	3,794
Aquatic breeding, foraging, and movement (miles)	2,802	0	28	0	11	33	22	0	93
Western pond turtle								0	0
Aquatic habitat	81,666	0	309	0	150	1,856	619	0	2,934
Upland nesting and overwintering habitat	16,184	0	140	0	115	331	245	0	832
Upland nesting and overwintering habitat-NHD	12,680	0	163	0	37	243	30	0	473
Total	110,530	0	612	0	303	2,430	895	0	4,239
Aquatic habitat linear (miles) - NHD	1,425	0	15	0	1	14	3	0	34

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	9	0	0	0	0	0	9
Upland cover and dispersal habitat	7,766	0	28	0	0	0	0	0	28
Total	7,925	0	37	0	0	0	0	0	37
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	74	0	0	201	0	0	275
Terrestrial cover and aestivation	29,459	0	305	0	30	659	0	0	994
Total	37,732	0	379	0	30	861	0	0	1,269
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	66	0	56	125	200	0	448
Nonriparian channels and grasslands	16,670	0	149	0	85	261	210	0	704
Total	34,456	0	214	0	141	387	410	0	1,152
California linderiella								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	51	0	0	89	0	0	140
Degraded vernal pool complex	2,713	0	10	0	0	45	0	0	56
Total	12,320	0	61	0	0	135	0	0	196
Plants									
Brittlescale total	451	0	1	0	0	3	0	0	3
Heartscale total	6,528	0	7	0	0	193	0	0	201
San Joaquin spearscale total	14,933	0	104	0	48	129	1	0	282
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	49	0	0	0	350	0	400
Delta mudwort total	6,081	0	58	0	10	261	122	0	451
Mason's lilaeopsis total	6,081	0	58	0	10	261	122	0	451
Delta tule pea total	5,853	0	2	0	0	420	1	0	423
Suisun Marsh aster total	5,853	0	2	0	0	420	1	0	423
Side-flowering skullcap total	2,497	0	29	0	1	80	12	0	122
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196
Legenere								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196
Dwarf downingia								0	0
Vernal pool complex	9,557	0	50	0	0	117	0	0	167
Degraded vernal pool complex	2,576	0	10	0	0	18	0	0	28
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	61	0	0	135	0	0	196

Alternative 3

Table 12E-31. Direct Effects on Natural Communities–Alternative 3 with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	39	0	0	101	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	61	0	112
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	3	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0	3
Valley/Foothill Riparian	17,966	49	0	0	18	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	435	0	106
Grassland	78,047	302	2	151	83	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,194	151	322
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	204	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	66	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	70	0	20
Managed Wetland	70,798	3	0	75	8	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,745	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,167	1,539	972	871	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	12,064	972	1,234
Cropland	459,778	2,057	1,489	947	823	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	11,508	947	1,157
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	234	57	42	113	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	953	42	113
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	34	18	0	37	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	65
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	402	727	11	330	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,511	11	330
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	40	51	0
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	862	40	46	37	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,305	46	49
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	3	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	1,969	0	3
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	135	0	0
Non-irrigated native pasture	3,465	1	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	310	0	1
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331	0	8
Beans (green)	122	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	237	0	0
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	21	15	53	60	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	576	53	109
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	59	63	0	116	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	241	0	196
Citrus and Sub-tropical	264	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	5	0	1
Vineyards	33,980	203	215	645	37	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	1,660	645	37
Native Vegetation	28,103	131	18	70	60	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	545	70	79
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	6	15
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	110	50	26	48	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	555	26	76
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	15	4	0	4	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	26	0	4
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction	Maximum Allowable Habitat Loss		
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	13	2	0	2	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	58	0	2
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	75	38	25	37	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	329	25	62
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	4	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	58	0	5
Developed	90,660	74	18	2	47	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	230	2	63

Table 12E-32. Direct Effects on Natural Communities–Alternative 3 with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	39	0	0	101	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	0	67	0	117
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	14	0	4
Valley/Foothill Riparian	17,966	49	0	0	18	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	0	732	0	141
Grassland	78,047	302	2	151	83	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	50	35	2,361	151	357
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	375	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	126	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	254	0	36
Managed Wetland	70,798	3	0	75	8	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,773	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,167	1,539	972	871	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	0	54,491	972	2,428
Cropland	459,778	2,057	1,489	947	823	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	0	50,749	947	2,266
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	9	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	234	57	42	113	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	0	3,270	42	185
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	34	18	0	37	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	0	1,665	0	133
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	402	727	11	330	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	0	5,368	11	475
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	135	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	0	2,300	0	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	0	110	51	2
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	862	40	46	37	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	0	13,991	46	382
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	3	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	0	3,521	0	24
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	0	1,551	0	6
Non-irrigated native pasture	3,465	1	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	0	320	0	3
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	0	35	0	4
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	0	1,343	0	22
Beans (green)	122	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	228	0	8
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	0	920	0	66
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	6	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	21	15	53	60	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	0	4,979	53	280
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	0	259	0	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	0	255	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	0	128	0	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	59	63	0	116	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	979	0	205
Citrus and Sub-tropical	264	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	83	0	1
Vineyards	33,980	203	215	645	37	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	0	2,927	645	104
Native Vegetation	28,103	131	18	70	60	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	0	2,352	70	102
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	420	6	60
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non Cropland	27,328	110	50	26	48	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	0	3,741	26	162
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	15	4	0	4	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	0	116	0	9
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	0	12	0	3

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	13	2	0	2	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	0	0	113	0	5
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	75	38	25	37	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	0	0	3,116	25	128
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	4	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	0	233	0	13
Developed	90,660	74	18	2	47	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	0	0	895	2	131

Table 12E-33. Direct Effects on Wildlife and Plants–Alternative 3 with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	3	27
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157	3	27
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	79	0	1
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	3	0	0	1	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,066	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	39	0	0	101	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	76	0	112
Total	86,263	39	0	0	101	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	76	0	112
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	319	0	89
Foraging	164,676	1,160	406	134	516	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,341	134	516
Total	188,594	1,201	686	134	607	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,662	134	607
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	27	0	0	11	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	409	0	99
Total	14,850	27	0	0	11	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	409	0	99
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,032	1,193	474	718	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	12,141	474	1,222
Nesting habitat	9,796	13	0	0	12	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	265	0	66
Total	487,675	2,045	1,193	474	730	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	12,406	474	1,288
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	634	57	162	157	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,348	162	241
Breeding habitat-foraging	60,828	209	0	151	34	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	926	151	189
Breeding habitat-nesting	1,935	9	0	0	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	78
Nonbreeding habitat-foraging ag	196,713	1,023	771	11	369	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	5,541	11	423
Nonbreeding habitat-roosting	28,067	23	0	0	5	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	593	0	5
Nonbreeding habitat-foraging	34,313	93	2	0	49	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	554	0	49
Total	424,040	1,990	831	325	617	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	9,985	325	984
Western burrowing owl																															0	0	0
High-value habitat	152,014	432	10	220	125	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	4,942	220	369
Low-value habitat	254,352	1,345	1,110	214	468	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	5,982	214	612
Total	406,366	1,777	1,120	434	592	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	10,924	434	981
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	29	0	5
Migratory habitat	10,425	20	0	0	10	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	298	0	92
Total	12,395	20	0	0	10	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	326	0	97
White-tailed kite																															0	0	0
Breeding habitat	14,069	24	0	0	13	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	336	0	100
Foraging habitat	507,922	2,030	1,196	474	720	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	11,962	474	1,237
Total	521,991	2,055	1,196	474	733	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	12,298	474	1,337
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	17	0	0	3	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	114	0	61
Secondary nesting and migratory habitat	5,528	10	0	0	8	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	219	0	8
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	27	0	0	11	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	409	0	99

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	24	0	0	13	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	35	0	16
Aquatic - nontidal	19,184	20	5	0	15	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	193	0	27
Upland-high	21,649	57	2	14	68	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	602	14	226
Upland-moderate	25,953	276	8	6	67	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	1,079	6	128
Upland-low	5,683	24	0	0	3	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	155	0	3
Total	84,567	401	15	20	166	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,063	20	400
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	6	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	66	1	16
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	76	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	132	0	99
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	354	3	86
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	19	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	220	11	68
Total	110,530	209	1	14	112	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	706	14	253
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	3	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	36	1	6
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	6	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	6
Total	37,732	5	0	151	6	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	6
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	49	0	0	18	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	430	0	94
Nonriparian channels and grasslands	16,670	182	0	0	68	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	324	0	163
Total	34,456	231	0	0	87	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	754	0	257
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	286	32	2
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Delta mudwort total	6,081	20	0	0	7	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	28	0	9
Mason's lilaeopsis total	6,081	20	0	0	7	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	28	0	9
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	1	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	4	0	2
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Table 12E-34. Direct Effects on Wildlife and Plants – Alternative 3 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	68	0	35
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	194	3	46
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	262	3	82
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	33
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	33
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	87	0	1
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0	0
Total	25,382	3	0	0	1	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,130	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	39	0	0	101	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	85	0	117
Total	86,263	39	0	0	101	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	85	0	117
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	360	0	89
Foraging	164,676	1,160	406	134	516	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	5,933	134	516
Total	188,594	1,201	686	134	607	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	6,295	134	607
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	27	0	0	11	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	683	0	120
Total	14,850	27	0	0	11	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	683	0	120
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,032	1,193	474	718	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	51,735	474	2,258
Nesting habitat	9,796	13	0	0	12	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	425	0	97
Total	487,675	2,045	1,193	474	730	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	52,160	474	2,355
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	634	57	162	157	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	10,216	162	516
Breeding habitat-foraging	60,828	209	0	151	34	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	44	35	2,200	151	219
Breeding habitat-nesting	1,935	9	0	0	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	82	0	80
Nonbreeding habitat-foraging ag	196,713	1,023	771	11	369	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	25,749	11	789
Nonbreeding habitat-roosting	28,067	23	0	0	5	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,665	0	6
Nonbreeding habitat-foraging	34,313	93	2	0	49	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,437	0	52
Total	424,040	1,990	831	325	617	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	41,350	325	1,662
Western burrowing owl																															0	0	0
High-value habitat	152,014	432	10	220	125	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	12,011	220	452
Low-value habitat	254,352	1,345	1,110	214	468	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	30,960	214	1,439
Total	406,366	1,777	1,120	434	592	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	42,972	434	1,891
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	142	0	10
Migratory habitat	10,425	20	0	0	10	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	402	0	104
Total	12,395	20	0	0	10	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	544	0	114
White-tailed kite																															0	0	0
Breeding habitat	14,069	24	0	0	13	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	532	0	134
Foraging habitat	507,922	2,030	1,196	474	720	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	55,902	474	2,205
Total	521,991	2,055	1,196	474	733	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	56,433	474	2,338
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	17	0	0	3	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	232	0	77
Secondary nesting and migratory habitat	5,528	10	0	0	8	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	366	0	14
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	27	0	0	11	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	683	0	120

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	24	0	0	13	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	36	0	18
Aquatic - nontidal	19,184	20	5	0	15	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	511	0	48
Upland-high	21,649	57	2	14	68	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	831	14	226
Upland-moderate	25,953	276	8	6	67	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,781	6	152
Upland-low	5,683	24	0	0	3	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	199	0	21
Total	84,567	401	15	20	166	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,357	20	466
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	6	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	162	1	17
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	76	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	163	0	120
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	708	3	102
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	19	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	480	11	70
Total	110,530	209	1	14	112	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,351	14	292
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	3	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	120	1	7
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	29	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	30	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	6	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	6
Total	37,732	5	0	151	6	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	6
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	49	0	0	18	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	727	0	129
Nonriparian channels and grasslands	16,670	182	0	0	68	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	493	0	177
Total	34,456	231	0	0	87	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,220	0	306
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	713	32	3
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	28	0	8
Delta mudwort total	6,081	20	0	0	7	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	30	0	11
Mason's lilaeopsis total	6,081	20	0	0	7	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	30	0	11
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	1	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	5	0	2
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Table 12E-35. Indirect Effects–Alternative 3 [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	18	0	0	51	343	0	412
Grassland habitat	3,103	0	161	0	0	51	263	0	475
Total	6,011	0	179	0	0	102	606	0	887
Riparian woodrat								0	0
Habitat	2,166	0	2	0	0	18	256	0	276
Total	2,166	0	2	0	0	18	256	0	276
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	169	0	0	0	0	0	169
Total	5,327	0	169	0	0	0	0	0	169
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	113	0	5	364	0	0	483
Secondary habitat	17,915	0	2	0	0	428	2	0	433
Total	25,382	0	116	0	5	793	2	0	915
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	1,173	0	44	2,785	850	0	4,851
Total	86,263	0	1,173	0	44	2,785	850	0	4,851
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	219	0	0	0	0	0	219
Roosting and foraging - Temporary	16,579	0	1,427	0	0	174	0	0	1,600
Foraging	164,676	9	7,612	0	0	1,825	0	9	9,437
Total	188,594	9	9,258	0	0	1,999	0	9	11,257
Least Bell's vireo								0	0
Migratory and breeding	14,850	0	155	0	244	619	406	0	1,425
Total	14,850	0	155	0	244	619	406	0	1,425
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	0	6,821	0	2,275	6,013	3,201	0	18,310
Nesting habitat	9,796	0	115	0	255	361	470	0	1,201
Total	487,675	0	6,936	0	2,530	6,373	3,672	0	19,511
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	7	647	0	1,612	1,152	852	7	4,264
Breeding habitat-foraging	60,828	0	378	0	931	2,389	532	0	4,231
Breeding habitat-nesting	1,935	0	39	0	89	43	114	0	285
Nonbreeding habitat-foraging ag	196,713	0	7,665	0	38	2,856	1,604	0	12,163
Nonbreeding habitat-roosting	28,067	0	350	0	49	1,214	25	0	1,639
Nonbreeding habitat-foraging	34,313	0	784	0	0	1,324	33	0	2,141
Total	424,040	7	9,863	0	2,721	8,978	3,161	7	24,723
Western burrowing owl								0	0
High-value habitat	152,014	0	1,227	0	1,202	3,038	541	0	6,008
Low-value habitat	254,352	0	4,285	0	512	1,632	1,977	0	8,406
Total	406,366	0	5,512	0	1,714	4,671	2,518	0	14,415
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	8	0	24	98	66	0	196
Migratory habitat	10,425	0	127	0	220	398	318	0	1,064
Total	12,395	0	135	0	244	496	384	0	1,260
White-tailed kite								0	0
Breeding habitat	14,069	0	171	0	269	543	523	0	1,506
Foraging habitat	507,922	0	6,853	0	2,297	6,477	2,982	0	18,609
Total	521,991	0	7,024	0	2,566	7,020	3,505	0	20,115
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	63	0	80	388	272	0	803
Secondary nesting and migratory habitat	5,528	0	92	0	5	172	135	0	403
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	155	0	244	634	406	0	1,440
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	161	0	13	219	131	0	524
Aquatic - nontidal	19,184	0	88	0	133	103	22	0	346
Upland-high	21,649	0	277	0	242	372	0	0	891
Upland-moderate	25,953	0	349	0	125	773	314	0	1,561
Upland-low	5,683	0	59	0	1	150	279	0	489
Total	84,567	0	935	0	516	1,616	745	0	3,811
Aquatic breeding, foraging, and movement (miles)	2,802	0	37	0	11	33	22	0	102
Western pond turtle								0	0
Aquatic habitat	81,666	0	593	0	150	1,856	619	0	3,218
Upland nesting and overwintering habitat	16,184	0	147	0	115	331	245	0	839
Upland nesting and overwintering habitat-NHD	12,680	0	117	0	37	243	30	0	427
Total	110,530	0	857	0	303	2,430	895	0	4,485
Aquatic habitat linear (miles) - NHD	1,425	0	16	0	1	14	3	0	34
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	147	0	0	0	0	0	147
Total	7,925	0	147	0	0	0	0	0	147

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	206	0	30	659	0	0	895
Total	37,732	0	206	0	30	861	0	0	1,096
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	94	0	56	125	200	0	476
Nonriparian channels and grasslands	16,670	0	220	0	85	261	210	0	776
Total	34,456	0	314	0	141	387	410	0	1,252
California linderiella								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	12	0	0	45	0	0	57
Total	12,320	0	14	0	0	135	0	0	149
Plants									
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	24	0	48	129	1	0	202
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	13	0	0	0	350	0	364
Delta mudwort total	6,081	0	88	0	10	261	122	0	481
Mason's lilaeopsis total	6,081	0	88	0	10	261	122	0	481
Delta tule pea total	5,853	0	6	0	0	420	1	0	428
Suisun Marsh aster total	5,853	0	6	0	0	420	1	0	428
Side-flowering skullcap total	2,497	0	13	0	1	80	12	0	106
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149
Legenere								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149
Dwarf downingia								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	12	0	0	18	0	0	30
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	14	0	0	135	0	0	149

Alternative 4

1 **Table 12E-36. Direct Effects on Natural Communities–Alternative 4 with Full Implementation (Near Term) (acres) [Version July 22, 2013]**

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries				
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction				
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid-Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,362	178	0	0	3,101	8	11	0	0	1	0	0	0	0	1	1	11	0.00	0.00	0.00	14	0	0	0	0	0	0	0	0	0	200	0	3,112
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	0	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	5	1	0	10	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	12	0	10	0
Valley/Foothill Riparian	17,966	16	18	1	29	80	28	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	420	1	116	0
Grassland	78,047	311	249	0	158	285	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,249	0	397	0
Alkali Seasonal Wetland Complex	3,723	0	0	0	3	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	3	0
Vernal Pool Complex	12,133	15	0	0	16	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	216	0	16	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	0	5	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	67	0	6	0
Nontidal Perennial Aquatic	5,567	3	55	0	7	24	12	0	0	0	0	0	0	0	5	3	10	8	0	0	34	0	0	0	0	0	0	0	0	115	0	18	0
Managed Wetland	70,798	7	0	0	38	24	44	88	0	1,569	4,099	1,183	42	0	223	141	1,320	36	7	3	5,718	0	0	0	0	0	0	0	0	5,760	0	73	0
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	1,448	3,140	199	1,196	629	263	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	12,945	199	1,559	0
Cropland	459,778	1,268	3,053	189	1,158	568	224	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	12,382	189	1,492	0
Grain and Hay Crops	1,507	6	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	63	0	0	142	0	111	0
Wheat	4,721	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	37,667	85	191	81	123	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	938	81	123	0
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0	0
Mixed grain and hay	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	42	0	0	397	0	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0	0
Safflower	15,592	11	0	60	39	5	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	60	66	0
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	103,424	87	3,054	0	373	0	0	0	0	0	0	0	0	0	0	0	39	21	33	0	73	0	0	1	0	133	185	0	0	3,534	0	373	0
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	3	71	0	7	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	0	37	0
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,125	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	10	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	38	0	0	0	0	0	0	0	0	39	0	7	0
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0	0
Alfalfa & Alfalfa mixtures	81,396	508	401	0	120	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,311	0	132	0
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	7	120	0	101	67	0	0	0	0	0	0	0	0	399	1	1,349	47	93	1	1,890	0	0	6	0	0	0	0	0	2,090	0	101	0
Non-irrigated mixed pasture	3,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0	0
Native Pasture	8,376	0	118	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	253	0	0	0
Non-irrigated native pasture	3,465	0	0	0	0	301	1	0	0	0	0	0	0	0	5	0	3	0	0	0	8	0	0	0	0	0	0	0	0	309	0	10	0
Misc. grasses	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	53	0	0	84	0	0	0
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,201	8	0	0	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	81	0
Beans (green)	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,422	2	0	0	0	0	0	0	0	0	0	0	0	0	13	0	211	12	0	0	237	0	0	0	0	0	0	0	0	239	0	0	0
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	21,366	24	1	42	55	68	49	0	0	0	0	0	0	0	0	0	122	321	19	0	471	0	0	0	0	0	0	0	0	564	42	104	0
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement																											
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries				
																					Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of rereational-related facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	85,263	178	0	0	2,101	8	11	0	0	1	0	0	0	0	1	1	11	0.00	0.00	0.00	14	0	0	0	0	0	0	0	0	0	200	0	2,112
Mixed	39	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush barries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	322	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	85	0	0	120	0	80	0	0	0	0	0	0	0	0	0	53	33	3	0	88	0	0	0	0	13	19	0	0	204	0	199
Citrus and Sub-tropical	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0
Vineyards	33,980	350	13	7	88	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	1,606	7	88
Native Vegetation	38,103	139	75	0	101	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	600	0	130
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	49	9	0	33	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	36
New lands being prepped for crop production	335	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Cropland	37,328	80	88	10	38	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	563	10	67
Semi-agricultural and incidental	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	12	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	18	0	5
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	5	0	0
Poultry farms	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	6	5	1	3	0	0	0	0	0	0	0	0	0	13	0	37	3	3	0	43	0	0	0	0	0	0	0	0	54	1	3
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	30,603	53	83	8	39	17	35	0	0	0	0	0	0	0	10	3	139	35	18	2	196	0	0	3	0	0	0	0	0	353	8	54
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	311	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	3,097	7	0	0	3	10	0	0	0	0	0	0	0	0	1	1	33	1	3	0	36	0	0	1	0	0	0	0	0	53	0	3
Developed	90,660	59	34	1	49	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	221	1	65

1 **Table 12E-37. Direct Effects on Nautral Communities–Alternative 4 with Full Implementation (Late Long Term) (acres) [Version July 22, 2013]**

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement																												
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries				
																					Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of rereational-related facilities	Construction	Maximum Allowable Habitat Loss		
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid-Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,363	178	0	0	3,101	8	11	0.31	0.21	1.47	0.38	0.00	0.00	0.00	1.33	0.51	14.24	0.00	0.00	0.00	18	3	5	0	0	0	0	0	0	0	207	0	3,116
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	5	1	0	10	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3	0	13	0	11
Valley/Foothill Riparian	17,966	16	18	1	39	89	88	0	0	0	0	0	0	0	0	0	490	25	38	8	552	43	35	0	0	0	0	366	0	717	1	151
Grassland	78,047	311	249	0	158	388	339	1	0	1	0	1	0	0	74	3	881	61	65	35	1,132	51	34	11	399	0	0	514	35	3,517	0	431
Alkali Seasonal Wetland Complex	3,721	0	0	0	2	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	22	0	2
Vernal Pool Complex	13,133	15	0	0	16	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	287	0	16
Other Natural Seasonal Wetland	843	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	0	5	25	1	0	0	0	0	0	0	0	7	0	81	7	3	3	99	0	0	0	0	0	0	8	0	127	0	6
Nontidal Perennial Aquatic	5,567	3	55	0	7	24	13	0	0	0	0	0	0	0	35	0	94	33	38	10	189	38	16	0	0	0	0	35	0	209	0	24
Managed Wetland	20,798	7	0	0	28	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	0	13,746	0	0	0	0	0	0	6	0	13,778	0	72
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	1,448	3,140	189	1,196	629	363	3	0	0	0	0	0	0	1,437	1	18,707	7,316	8,983	3,120	39,565	3,087	1,194	960	3,593	3,000	1,950	8,015	0	55,372	189	3,753
Cropland	459,778	1,368	3,053	189	1,158	568	334	3	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	3,879	36,814	1,947	1,108	863	3,053	3,000	1,950	8,280	0	51,623	189	3,501
Grain and Hay Crops	1,507	6	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	428	159	0	0	393	0	111
Wheat	4,731	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	16	0	9	0	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	85	191	81	133	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	351	3,817	133	72	0	0	0	0	597	0	3,256	81	194
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	623	143	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	11	0	60	39	5	17	0	0	0	0	0	0	0	21	0	605	424	188	55	1,302	123	69	37	147	0	0	325	0	1,625	60	135
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	103,424	87	2,054	0	272	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	351	145	141	550	316	443	1,231	0	6,380	0	417
Grain sorghum	224	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	3	71	0	7	0	30	0	0	0	0	0	0	0	1	0	39	11	93	1	134	0	0	0	0	0	0	0	0	207	0	27
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	401	0	2,300	0	39
Sunflowers	1,175	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	10	0	0	7	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	82	5	1	0	1	0	0	3	0	109	0	8
Pasture	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	363	328	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	508	401	0	120	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	2,194	0	13,997	0	465
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	7	120	0	101	67	0	0	0	0	0	0	0	0	174	0	3,933	82	87	50	3,335	43	31	18	63	0	0	138	0	3,643	0	133
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	20	2	0	171	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	0	118	0	0	1	0	0	0	0	0	0	0	0	235	1	1,079	121	103	8	1,537	14	6	0	0	0	0	5	0	1,669	0	6
Non-irrigated native pasture	3,465	0	0	0	0	301	1	3	0	0	0	0	0	0	3	0	10	0	0	0	14	5	3	0	0	0	0	7	0	319	0	11
Misc. grasses	433	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	8	0	24	0	4
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	28	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	0
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	8	0	0	81	0	0	0	0	0	0	0	0	0	16	0	421	337	173	16	963	34	14	5	21	0	0	42	0	1,020	0	95
Beans (green)	133	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	227	0	9
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	45	0	0	0	47	12	7	8	33	0	0	74	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	328	64	163	3	458	110	66	71	280	0	0	623	0	623	0	66
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	9	0	6	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	24	1	42	55	68	49	0	0	0	0	0	0	0	142	0	1,665	756	1,203	31	3,696	388	171	181	709	0	0	1,514	0	4,067	42	274

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement																												
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries				
																					Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of rereational-related facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	3	0	0	3	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	7	0	3
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	73	36	0	343	4	1	3	9	0	0	31	0	359	0	3
Bush berries	219	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	22	0	255	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	323	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	73	0	0	0	90	6	3	6	25	0	0	56	0	138	0	3
Market Tomatoes	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	85	0	0	120	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	32	46	145	0	942	0	209
Citrus and Sub-tropical	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	83	0	0
Vineyards	23,980	350	13	7	88	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	336	0	2,873	7	155
Native Vegetation	38,103	139	75	0	101	18	10	0	0	0	0	0	0	0	88	0	1,101	519	367	79	3,154	30	23	0	0	0	0	175	0	3,407	0	143
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	49	9	0	33	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	65	77	45	40	156	0	0	346	0	398	0	81
New lands being prepped for crop production	335	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non-Cropland	27,228	80	88	10	38	62	28	0	0	0	0	0	0	0	127	0	1,259	468	556	241	2,751	140	86	88	531	0	0	635	0	3,749	10	152
Semi-agricultural and incidental	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	12	0	0	5	0	0	0	0	0	0	0	0	0	11	0	62	7	8	1	81	6	5	0	0	0	0	64	0	109	0	10
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	13	0	13	0	3
Dairies	891	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	10	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	6	5	1	3	0	0	0	0	0	0	0	0	0	3	0	61	11	15	3	93	5	3	0	0	0	0	15	0	108	1	5
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	30,602	53	83	8	30	17	25	0	0	0	0	0	0	0	104	0	1,058	438	611	328	3,240	114	66	0	531	0	0	463	0	3,139	8	110
Riparian Vegetation	352	0	0	0	0	25	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	142	0	0
Water surface	311	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	3,097	7	0	0	3	10	0	0	0	0	0	0	0	0	4	0	63	9	10	0	105	9	9	08	0	0	0	83	0	228	0	10
Developed	90,660	59	24	1	49	15	16	3	3	29	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	360	0	897	1	133

1 **Table 12E-38. Direct Effects on Wildlife and Plants–Alternative 4 with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]**

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent–Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Riparian brush rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Riparian habitat	2,909	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1
Grassland habitat	3,103	124	0	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	124	0	54
Total	6,011	127	0	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	0	54
Riparian woodrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	3,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low-long-term conservation value	21,891	0	0	0	0	0	0	30	0	524	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low-long-term conservation value	2,800	0	0	0	0	0	0	11	0	239	50	22	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	2,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Breeding, foraging, and disperal habitat	5,327	155	52	0	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	210	0	103
Total	5,327	155	52	0	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	210	0	103
Suisun shrew	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary habitat	2,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	42	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California black rail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary habitat	7,467	0	0	0	18	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	76	0	18
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	0	1	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	0	0	0	18	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,062	0	18
California clapper rail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary habitat	286	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Nesting and Migratory Habitat	86,263	178	0	0	2,101	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	216	0	2,112
Total	86,263	178	0	0	2,101	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	216	0	2,112
Greater sandhill crane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Roosting and foraging—Permanent	7,340	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Roosting and foraging—Temporary	16,579	20	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	16
Foraging	164,676	353	2,347	183	778	0	0	0	0	0	0	0	0	0	3	0	709	853	363	26	1,951	0	0	0	0	0	0	257	567	1	5,474	183	778
Total	188,594	381	2,347	183	802	0	0	0	0	0	0	0	0	0	3	0	709	853	363	26	1,951	0	0	0	0	0	0	257	567	1	5,503	183	802
Least Bell's vireo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Migratory and breeding	14,850	11	18	1	22	83	88	1	0	3	1	1	0	0	0	0	283	6	4	2	299	0	0	0	0	0	0	0	0	0	411	1	110
Total	14,850	11	18	1	22	83	88	1	0	3	1	1	0	0	0	0	283	6	4	2	299	0	0	0	0	0	0	0	0	0	411	1	110
Suisun song sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary habitat	3,723	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Foraging habitat	477,879	1,100	3,235	183	1,113	906	504	27	29	192	59	42	0	0	773	152	3,742	882	353	27	6,278	0	0	0	13	0	1,054	527	13	35	13,261	183	1,617
Nesting habitat	9,796	8	10	0	18	70	54	0	0	4	1	0	0	0	0	0	164	3	1	1	173	0	0	0	0	0	0	0	0	0	370	0	73
Total	487,675	1,108	3,245	183	1,131	1,075	558	27	29	196	60	42	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	13,531	183	1,689
Tricolored blackbird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Breeding habitat eg foraging	302,184	624	795	81	148	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	3	0	867	136	0	0	3,086	81	233
Breeding habitat foraging	60,828	161	52	0	114	105	155	10	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	930	0	368
Breeding habitat nesting	1,935	4	0	1	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1	77
Nonbreeding habitat foraging eg	196,713	203	3,124	0	575	0	54	0	0	0	0	0	0	0	333	8	3,065	488	313	19	1,159	3,065	0	0	7	0	120	307	0	0	6,074	0	638
Nonbreeding habitat roosting	28,067	7	13	0	20	8	0	36	1	0	230	171	1	0	116	0	0	4	3	1	562	0	0	0	0	0	0	0	0	0	590	0	20
Nonbreeding habitat foraging	24,312	48	107	0	47	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	704	0	47
Total	424,040	1,067	3,180	83	905	603	367	54	3	286	383	270	1	0	595	11	3,499	529	331	26	2,203	3,787	0	0	13	0	987	533	13	35	11,401	83	1,373
Western burrowing owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement																														
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
																					Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
High-value habitat	353,014	240	541	0	351	882	345	17	11	133	98	53	0	0	633	5	3,037	143	157	33	3,397	0	0	0	4	0	206	63	13	35	5,381	0	696
Low-value habitat	254,352	689	3,324	101	588	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	3	2,300	0	0	0	0	0	749	371	0	0	6,540	101	733
Total	406,366	1,030	3,864	103	939	979	389	17	28	145	100	53	0	0	764	153	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	11,921	103	1,338
Western yellow-billed cuckoo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Breeding habitat	1,970	3	6	0	1	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	38	0	6
Migratory habitat	10,425	4	10	0	18	57	82	0	0	0	0	0	0	0	0	0	216	3	1	1	231	0	0	0	0	0	0	0	0	0	292	0	101
Total	12,395	7	16	0	19	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	234	0	0	0	0	0	0	0	0	0	330	0	106
White-tailed kite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Breeding habitat	14,069	10	16	0	23	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	338	0	110
Foraging habitat	507,922	1,100	3,329	183	1,112	1,008	516	0	33	986	733	931	3	0	0	153	3,578	870	253	27	7,667	0	0	0	13	0	0	0	13	35	13,076	183	1,639
Total	521,991	1,111	3,255	183	1,135	1,090	604	0	33	991	733	931	3	0	0	153	3,796	873	255	28	7,896	0	0	0	13	0	0	0	13	35	13,413	183	1,739
Yellow-breasted chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary nesting and migratory habitat	8,178	7	10	0	6	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	113	0	64
Secondary nesting and migratory habitat	5,528	3	8	1	16	3	0	0	0	0	0	0	0	0	0	0	109	5	3	1	306	0	0	0	0	0	0	0	0	0	320	1	16
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	39	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	75	0	39
Total	14,547	10	18	1	22	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	399	0	0	0	0	0	0	0	0	0	410	1	119
Reptiles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Giant garter snake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Aquatic--tidal	13,097	16	1	0	55	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	28	0	67
Aquatic--nontidal	19,184	10	66	0	13	50	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	235	0	26
Upland-high	21,649	66	106	0	48	178	158	0	0	0	0	0	0	0	43	1	239	32	33	17	364	0	0	0	0	0	0	0	0	0	715	0	306
Upland-moderate	25,953	167	54	0	135	60	61	0	0	0	0	0	0	0	70	43	553	26	2	1	700	0	0	0	0	0	0	0	0	35	1,017	0	196
Upland-low	5,683	14	4	0	5	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	139	0	0	0	0	0	0	0	0	0	148	0	5
Total	84,567	274	322	0	257	306	334	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,142	0	491
Aquatic breeding, foraging, and movement (miles)	2,802	7	6	0	5	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	61	0	15
Western pond turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Aquatic habitat	81,666	180	57	0	2,098	27	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	230	0	2,120
Upland nesting and overwintering habitat	16,184	105	87	0	34	109	70	3	1	48	41	16	0	0	3	0	24	3	0	0	136	0	0	0	4	0	0	0	0	0	451	0	104
Upland nesting and overwintering habitat NHD	13,680	30	47	0	34	31	49	5	5	13	7	3	0	0	9	1	88	9	5	3	144	0	0	0	0	0	0	0	0	0	343	0	83
Total	110,530	215	201	0	2,166	167	141	53	5	60	48	18	0	0	10	1	111	11	6	3	326	0	0	0	4	0	0	0	0	0	1,013	0	2,307
Aquatic habitat linear (miles)--NHD	1,425	3	6	0	3	1	3	0	0	1	1	1	0	0	1	0	14	3	3	0	24	0	0	0	0	0	0	0	0	0	34	0	6
Amphibians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California red-legged frog	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	6	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	0	39
Total	7,925	7	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	15	0	39
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	20,459	6	0	0	33	42	0	0	0	0	0	0	0	0	183	0	21	0	0	0	203	0	0	0	0	0	0	0	13	35	298	0	33
Total	27,732	6	0	0	33	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	202	0	0	0	0	0	0	0	12	35	298	0	33
Invertebrates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Valley elderberry longhorn beetle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Riparian vegetation	17,786	16	18	1	29	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	415	1	105
Nonriparian channels and grasslands	16,670	126	101	0	62	41	94	1	0	0	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	369	0	156
Total	34,456	142	119	1	90	125	170	1	0	0	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	784	1	261
California linderiella	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	208	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Conservancy fairy shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	208	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Longhorn fairy shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	208	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Midvalley fairy shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	208	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Vernal pool fairy shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement																														
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
																					Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Degraded vernal pool complex	2,713	7	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	208	0	3
Total	13,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Vernal pool tadpole shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	208	0	3
Total	13,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	0	0
San Joaquin spearscale total	14,933	33	30	0	39	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	204	0	39
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button-celery total	3,761	34	39	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	0	33
Delta mudwort total	6,081	13	3	0	15	3	3	0	0	0	0	0	0	0	0	0	0	3	1	3	5	0	0	0	0	0	0	0	0	0	33	0	17
Mason's lilaeopsis total	6,081	13	3	0	15	3	3	0	0	0	0	0	0	0	0	0	0	3	1	3	5	0	0	0	0	0	0	0	0	0	33	0	17
Delta tule pea total	5,853	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1
Suisun Marsh aster total	5,853	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1
Side-flowering skullcap total	2,407	3	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	7	0	5
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkali milk vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	3	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	207	0	3
Alkali seasonal wetland	188	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Legenere	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	3	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	207	0	3
Alkali seasonal wetland	188	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Heckard's peppergrass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	3	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	207	0	3
Alkali seasonal wetland	188	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Boggs Lake hedge-hyssop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	3	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	207	0	3
Alkali seasonal wetland	188	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18
Dwarf downingia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	3	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	207	0	3
Alkali seasonal wetland	188	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	216	0	18

1 **Table 12E-39. Direct Effects on Wildlife and Plants – Alternative 4 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]**

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent–Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Riparian brush rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	0	0	0
Riparian habitat	2,909	3	0	0	1	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	18	0	43	35	0	0	0	0	0	0	65	0	35
Grassland habitat	3,103	124	0	0	54	0	0	0	0	0	0	0	0	0	3	0	11	1	3	0	18	0	26	20	0	0	0	0	0	0	168	0	74
Total	6,011	127	0	0	54	0	0	0	0	0	0	0	0	0	8	0	18	4	4	1	37	0	69	54	0	0	0	0	0	0	233	0	109
Riparian woodrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	33
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0	33
Salt marsh harvest mouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	3,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low-long-term conservation value	21,891	0	0	0	0	0	0	5	7	901	807	3,353	160	0	0	0	0	0	0	0	4,330	1,003	0	0	0	0	0	0	0	0	5,333	0	0
Managed wetland—wetland secondary, low-long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low-long-term conservation value	2,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Breeding, foraging, and disperal habitat	5,327	155	52	0	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	214	0	103
Total	5,327	155	52	0	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	214	0	103
Suisun shrew	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary habitat	2,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California black rail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary habitat	7,467	0	0	0	18	5	0	0	0	21	0	0	0	0	5	0	0	1	1	1	3	26	0	0	0	0	0	0	0	0	83	0	18
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	83	0	0	0	0	0	0	0	0	3,042	0	0
Total	25,382	0	0	0	18	5	0	29	52	21	587	2,240	118	0	5	0	12	6	1	1	2,954	168	0	0	0	0	0	0	0	0	3,127	0	18
California clapper rail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary habitat	286	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0	0
Total	6,716	0	0	0	0	0	0	5	3	22	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	25	0	0
California least tern	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Nesting and Migratory Habitat	86,263	178	0	0	2,101	3	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	224	0	2,116
Total	86,263	178	0	0	2,101	3	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	224	0	2,116
Greater sandhill crane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Roosting and foraging—Permanent	7,340	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Roosting and foraging—Temporary	16,579	20	0	0	16	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	71	0	16
Foraging	164,676	353	2,347	183	778	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	0	300	1,350	4	7,065	183	778
Total	188,594	381	2,347	183	803	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	0	300	1,350	4	7,136	183	803
Least Bell's vireo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Migratory and breeding	14,850	11	18	1	23	83	88	3	1	8	1	3	0	0	0	0	477	23	35	6	545	0	38	21	0	0	0	0	0	0	685	1	131
Total	14,850	11	18	1	23	83	88	3	1	8	1	3	0	0	0	0	477	23	35	6	545	0	38	21	0	0	0	0	0	0	685	1	131
Suisun song sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary habitat	3,723	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	33,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	37,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Foraging habitat	477,879	1,100	3,235	183	1,113	906	504	63	53	411	249	666	11	0	1,319	3	17,988	6,280	7,393	3,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	52,845	183	3,653
Nesting habitat	9,796	8	10	0	18	79	54	0	0	2	4	3	0	0	0	0	258	12	15	3	395	0	28	31	0	0	0	0	0	0	430	0	104
Total	487,675	1,108	3,245	183	1,131	1,075	558	63	53	413	253	668	11	0	1,319	3	18,246	6,292	7,408	3,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	53,275	183	3,756
Tricolored blackbird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Breeding habitat eg foraging	302,184	634	795	81	148	477	84	3	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	3,814	3,635	503	275	3	0	3,521	568	0	0	10,954	81	607
Breeding habitat foraging	60,828	161	53	0	114	105	155	10	11	283	299	693	18	0	38	0	354	28	16	2	1,103	647	47	30	11	0	0	0	44	35	2,304	0	398
Breeding habitat nesting	1,935	4	0	1	2	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	31	34	4	3	0	0	0	0	0	0	72	1	79
Nonbreeding habitat foraging eg	196,713	203	2,124	0	675	0	54	0	0	0	0	0	0	0	530	1	8,716	3,991	4,115	851	8,489	8,716	653	367	953	3,991	210	945	0	0	36,383	0	995
Nonbreeding habitat roosting	28,067	7	13	0	20	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,663	0	33
Nonbreeding habitat foraging	24,312	48	102	0	47	0	0	0	0	8	44	465	7	0	28	3	651	33	49	33	872	659	3	3	0	0	0	0	7	0	1,586	0	60
Total	424,040	1,057	3,180	83	905	603	367	17	19	391	746	2,276	54	0	993	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	4,731	1,513	50	35	42,766	83	1,950
Western burrowing owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement																													
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
																					Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High-Tidal Brackish Marsh	Mid-Tidal Brackish Marsh	Low-Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
High-value habitat	353,014	240	541	0	351	883	345	39	40	324	216	795	81	0	620	3	6,353	783	617	158	9,939	0	142	83	11	0	362	159	50	35	13,450	0	679
Low-value habitat	254,352	689	3,324	101	588	98	144	0	4	44	21	14	0	0	478	0	9,281	2,919	3,751	2,226	19,739	0	1,453	827	960	3,991	1,314	953	0	0	31,519	101	1,558
Total	406,366	1,030	3,864	103	939	979	289	39	44	368	236	809	81	0	1,098	3	15,634	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	43,969	103	2,237
Western yellow-billed cuckoo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Breeding habitat	1,970	3	6	0	1	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	160	0	11
Migratory habitat	10,425	4	10	0	18	67	82	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	397	0	112
Total	12,395	7	16	0	19	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	547	0	123
White-tailed kite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Breeding habitat	14,069	10	16	0	23	82	88	0	0	2	4	3	0	0	0	0	239	15	17	3	283	0	42	32	0	0	0	0	0	0	533	0	144
Foraging habitat	507,932	1,100	3,329	183	1,113	1,008	516	0	71	1,372	1,132	4,538	425	0	0	3	17,811	6,237	7,240	2,815	41,635	0	1,706	968	971	3,991	1,849	1,440	50	35	57,016	183	3,597
Total	521,991	1,111	3,355	183	1,135	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	57,548	183	3,740
Yellow-breasted chat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Primary nesting and migratory habitat	8,178	7	10	0	6	9	58	0	0	0	0	0	0	0	0	0	149	14	16	2	182	0	23	15	0	0	0	0	0	0	232	0	79
Secondary nesting and migratory habitat	5,528	3	8	1	16	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	367	1	33
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	3	1	8	1	3	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	10	18	1	22	83	88	3	1	8	1	3	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	684	1	121
Reptiles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Giant garter snake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Aquatic—tidal	13,097	16	1	0	55	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	3	3	0	0	0	0	0	0	28	0	60
Aquatic—nontidal	19,184	10	66	0	13	60	13	0	0	0	0	0	0	0	27	0	237	28	60	21	393	0	24	21	0	0	0	0	0	0	554	0	47
Upland-high	21,649	66	106	0	48	178	158	0	0	0	0	0	0	0	33	0	477	17	36	39	594	0	0	0	0	0	0	0	0	0	944	0	306
Upland-moderate	25,953	167	54	0	135	60	61	0	0	0	0	0	0	0	60	0	1,010	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,718	0	320
Upland-low	5,683	14	4	0	5	1	0	0	0	0	0	0	0	0	7	0	137	4	3	3	154	0	20	18	0	0	0	0	0	0	193	0	23
Total	84,567	274	222	0	257	306	234	0	0	0	0	0	0	0	139	1	1,870	188	239	90	2,518	0	82	65	0	0	0	0	0	35	3,437	0	656
Aquatic breeding, foraging, and movement (miles)	2,802	7	6	0	6	5	9	0	0	0	0	0	0	0	8	0	73	18	33	16	138	0	3	1	0	0	0	0	0	0	156	0	16
Western pond turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Aquatic habitat	81,666	180	57	0	2,098	27	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	22	21	0	0	0	0	0	0	251	0	2,141
Upland nesting and overwintering habitat	16,184	105	87	0	34	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	13	15	10	0	0	0	0	0	805	0	119
Upland nesting and overwintering habitat NHD	13,680	30	47	0	34	31	49	9	9	48	11	64	1	0	13	1	303	16	15	11	399	0	4	3	0	0	0	0	0	0	501	0	85
Total	110,530	215	201	0	2,166	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	9	0	0	0	0	1,657	0	2,346
Aquatic habitat linear (miles)—NHD	1,425	3	6	0	3	1	3	0	0	3	3	7	1	0	4	0	43	15	20	13	106	0	3	1	0	0	0	0	0	0	118	0	7
Amphibians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
California red-legged frog	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	6	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	30	0	30
Total	7,925	7	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	31	0	30
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	20,459	6	0	0	32	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	639	0	32
Total	27,732	6	0	0	32	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	639	0	32
Invertebrates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Valley elderberry longhorn beetle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Riparian vegetation	17,786	16	18	1	29	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	712	1	140
Nonriparian channels and grasslands	16,670	126	101	0	62	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	538	0	170
Total	34,456	142	119	1	90	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	812	0	52	49	0	0	0	0	0	0	1,250	1	210
California linderiella	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	379	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Conservancy fairy shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	379	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Longhorn fairy shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	379	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Midvalley fairy shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	379	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Vernal pool fairy shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement																														
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Managemen	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
																					Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent-Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	370	0	2
Total	13,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Vernal pool tadpole shrimp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,607	8	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	16
Degraded vernal pool complex	2,713	7	0	0	2	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	370	0	2
Total	13,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	252	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	0
San Joaquin spearscale total	14,933	22	30	0	20	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	721	0	20
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,761	34	30	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	79	0	21
Delta mudwort total	6,081	12	3	0	15	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	25	0	19
Mason's lilaeopsis total	6,081	12	3	0	15	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	25	0	19
Delta tule pea total	5,853	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2
Suisun Marsh aster total	5,853	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2
Side-flowering skullcap total	2,407	2	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	8	0	6
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkali milk vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	2	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	378	0	2
Alkali seasonal wetland	188	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Legenere	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	2	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	378	0	2
Alkali seasonal wetland	188	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Heckard's peppergrass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	2	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	378	0	2
Alkali seasonal wetland	188	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Boggs Lake hedge-hyssop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	2	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	378	0	2
Alkali seasonal wetland	188	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18
Dwarf downingia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
Vernal pool complex	9,557	8	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	14
Degraded vernal pool complex	2,576	7	0	0	2	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	378	0	2
Alkali seasonal wetland	188	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	12,320	15	0	0	18	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	387	0	18

~~Table 12E-40. Indirect Effects–Alternative 4 [Version July 24, 2013]~~

		CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals	-	-	-	-	-	-	-	-	-
Riparian brush rabbit	-	-	-	-	-	-	-	0	0
Riparian habitat	3,909	0	5	0	0	51	343	0	399
Grassland habitat	3,103	0	191	0	0	51	263	0	505
Total	6,011	0	196	0	0	102	606	0	904
Riparian woodrat	-	-	-	-	-	-	-	0	0
Habitat	3,166	0	0	0	0	18	356	0	374
Total	3,166	0	0	0	0	18	356	0	374
Salt marsh harvest mouse	-	-	-	-	-	-	-	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	3,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	31,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	3,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	2,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox	-	-	-	-	-	-	-	0	0
Breeding, foraging, and dispersal habitat	5,337	0	182	0	0	0	0	0	182
Total	5,337	0	182	0	0	0	0	0	182
Suisun shrew	-	-	-	-	-	-	-	0	0
Primary habitat	3,138	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds	-	-	-	-	-	-	-	-	-
California black rail	-	-	-	-	-	-	-	0	0
Primary habitat	7,467	0	126	0	5	364	0	0	495
Secondary habitat	17,915	0	3	0	0	428	3	0	433
Total	25,382	0	129	0	5	793	3	0	928
California clapper rail	-	-	-	-	-	-	-	0	0
Primary habitat	295	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern	-	-	-	-	-	-	-	0	0
Nesting and Migratory Habitat	86,263	0	1,386	0	44	3,785	850	0	5,064
Total	86,263	0	1,386	0	44	3,785	850	0	5,064
Greater sandhill crane	-	-	-	-	-	-	-	0	0
Roosting and foraging—Permanent	7,340	0	362	0	0	0	0	0	362
Roosting and foraging—Temporary	16,579	0	975	0	0	174	0	0	1,148
Foraging	164,676	27	8,318	0	0	3,825	0	27	10,043
Total	188,594	27	9,655	0	0	3,999	0	27	11,554
Least Bell's vireo	-	-	-	-	-	-	-	0	0
Migratory and breeding	14,850	0	337	0	244	610	406	0	1,597
Total	14,850	0	337	0	244	610	406	0	1,597
Suisun song sparrow	-	-	-	-	-	-	-	0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,985	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk	-	-	-	-	-	-	-	0	0
Foraging habitat	477,879	0	6,954	0	2,275	6,013	3,201	0	18,443
Nesting habitat	9,796	0	172	0	255	361	470	0	1,258
Total	487,675	0	7,126	0	2,530	6,373	3,672	0	19,701
Tricolored blackbird	-	-	-	-	-	-	-	0	0
Breeding habitat-ag foraging	102,184	8	824	0	1,612	1,152	852	8	4,441
Breeding habitat-foraging	60,828	0	777	0	931	2,389	532	0	4,629
Breeding habitat-nesting	3,935	5	43	0	89	43	114	5	290
Nonbreeding habitat-foraging-ag	196,713	17	7,597	0	38	3,856	1,604	17	13,096
Nonbreeding habitat-roosting	28,067	0	422	0	49	1,214	26	0	1,711
Nonbreeding habitat-foraging	24,313	0	824	0	0	1,324	33	0	2,181
Total	424,040	25	10,488	0	2,721	8,979	3,161	25	26,348
Western burrowing owl	-	-	-	-	-	-	-	0	0
High value habitat	152,014	0	1,330	0	1,202	3,040	541	0	6,113
Low value habitat	254,352	0	3,688	0	512	1,632	1,077	0	7,909
Total	406,366	0	5,017	0	1,714	4,673	1,618	0	13,922
Western yellow-billed cuckoo	-	-	-	-	-	-	-	0	0
Breeding habitat	1,970	0	49	0	24	98	66	0	237
Migratory habitat	10,425	0	152	0	220	298	318	0	1,088
Total	12,395	0	201	0	244	496	384	0	1,326

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
White-tailed kite	-	-	-	-	-	-	-	0	0
Breeding habitat	14,069	0	228	0	269	543	523	0	1,563
Foraging habitat	507,922	0	6,981	0	2,297	6,477	3,982	0	18,737
Total	521,991	0	7,209	0	2,566	7,020	3,505	0	20,300
Yellow-breasted chat	-	-	-	-	-	-	-	0	0
Primary nesting and migratory habitat	8,178	0	124	0	80	388	272	0	863
Secondary nesting and migratory habitat	5,528	0	107	0	5	172	135	0	419
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	231	0	244	634	406	0	1,516
Reptiles	-	-	-	-	-	-	-	-	-
Giant garter snake	-	-	-	-	-	-	-	0	0
Aquatic—tidal	13,097	0	184	0	13	219	131	0	546
Aquatic—nontidal	10,184	0	87	0	133	103	22	0	345
Upland-high	21,649	0	277	0	243	272	0	0	891
Upland-moderate	35,952	0	437	0	135	273	214	0	1,639
Upland-low	6,683	0	70	0	1	150	279	0	509
Total	84,567	0	1,054	0	516	1,616	746	0	3,931
Aquatic breeding, foraging, and movement (miles)	3,802	0	26	0	11	33	23	0	93
Western pond turtle	-	-	-	-	-	-	-	0	0
Aquatic habitat	81,666	0	697	0	150	1,856	619	0	3,323
Upland nesting and overwintering habitat	16,184	0	275	0	115	331	245	0	967
Upland nesting and overwintering habitat-NHD	13,680	0	106	0	37	243	30	0	417
Total	110,530	0	1,078	0	303	2,430	895	0	4,706
Aquatic habitat linear (miles) – NHD	1,425	0	12	0	1	14	3	0	30
Amphibians	-	-	-	-	-	-	-	-	-
California red-legged frog	-	-	-	-	-	-	-	0	0
Aquatic habitat	159	0	4	0	0	0	0	0	4
Upland cover and dispersal habitat	7,766	0	60	0	0	0	0	0	60
Total	7,925	0	64	0	0	0	0	0	64
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander	-	-	-	-	-	-	-	0	0
Aquatic breeding habitat	9,272	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	85	0	30	659	0	0	774
Total	27,732	0	85	0	30	860	0	0	826
Invertebrates	-	-	-	-	-	-	-	-	-
Valley elderberry longhorn beetle	-	-	-	-	-	-	-	0	0
Riparian vegetation	17,786	0	88	0	56	125	200	0	470
Nonriparian channels and grasslands	16,670	0	175	0	85	261	210	0	730
Total	34,456	0	263	0	141	387	410	0	1,200
California linderiella	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,607	0	40	0	0	89	0	0	129
Degraded vernal pool complex	3,713	0	1	0	0	45	0	0	47
Total	13,320	0	41	0	0	135	0	0	176
Conservancy fairy shrimp	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,607	0	40	0	0	89	0	0	129
Degraded vernal pool complex	3,713	0	1	0	0	45	0	0	47
Total	13,320	0	41	0	0	135	0	0	176
Longhorn fairy shrimp	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,607	0	40	0	0	89	0	0	129
Degraded vernal pool complex	3,713	0	1	0	0	45	0	0	47
Total	13,320	0	41	0	0	135	0	0	176
Midvalley fairy shrimp	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,607	0	40	0	0	89	0	0	129
Degraded vernal pool complex	3,713	0	1	0	0	45	0	0	47
Total	13,320	0	41	0	0	135	0	0	176
Vernal pool fairy shrimp	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,607	0	40	0	0	89	0	0	129
Degraded vernal pool complex	3,713	0	1	0	0	45	0	0	47
Total	13,320	0	41	0	0	135	0	0	176
Vernal pool tadpole shrimp	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,607	0	40	0	0	89	0	0	129
Degraded vernal pool complex	3,713	0	1	0	0	45	0	0	47
Total	13,320	0	41	0	0	135	0	0	176
Plants	-	-	-	-	-	-	-	-	-
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	58	0	48	130	1	0	236
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button-celery total	3,361	0	97	0	0	0	350	0	448

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Delta mudwort total	6,081	0	93	0	10	261	123	0	486
Mason's lilaeopsis total	6,081	0	93	0	10	261	123	0	486
Delta tule pea total	5,853	0	5	0	0	420	1	0	427
Suisun Marsh aster total	5,853	0	5	0	0	420	1	0	427
Side-flowering skullcap total	3,497	0	33	0	1	80	12	0	125
Slough thistle total	1,824	0	0	0	0	0	349	0	349
Soft bird's beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants	-	-	-	-	-	-	-	-	-
Alkali milk-vetch	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,557	0	33	0	0	117	0	0	149
Degraded vernal pool complex	2,576	0	1	0	0	18	0	0	19
Alkali seasonal wetland	188	0	8	0	0	0	0	0	8
Total	12,320	0	41	0	0	135	0	0	176
Legenere	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,557	0	33	0	0	117	0	0	149
Degraded vernal pool complex	2,576	0	1	0	0	18	0	0	19
Alkali seasonal wetland	188	0	8	0	0	0	0	0	8
Total	12,320	0	41	0	0	135	0	0	176
Heckard's peppergrass	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,557	0	33	0	0	117	0	0	149
Degraded vernal pool complex	2,576	0	1	0	0	18	0	0	19
Alkali seasonal wetland	188	0	8	0	0	0	0	0	8
Total	12,320	0	41	0	0	135	0	0	176
Boggs Lake hedge-hyssop	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,557	0	33	0	0	117	0	0	149
Degraded vernal pool complex	2,576	0	1	0	0	18	0	0	19
Alkali seasonal wetland	188	0	8	0	0	0	0	0	8
Total	12,320	0	41	0	0	135	0	0	176
Dwarf downingia	-	-	-	-	-	-	-	0	0
Vernal pool complex	9,557	0	33	0	0	117	0	0	149
Degraded vernal pool complex	2,576	0	1	0	0	18	0	0	19
Alkali seasonal wetland	188	0	8	0	0	0	0	0	8
Total	12,320	0	41	0	0	135	0	0	176

1 **Table 12E-36. Direct Effects on Natural Communities–Alternative 4 with Full Implementation (Near-Term) (acres) [Version February 24, 2015]**

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	206	1	20	2,078	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	229	2,109
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	2	1	2	13	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	10	15
Valley/Foothill Riparian	17,966	28	14	4	27	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	428	118
Grassland	78,047	287	219	22	129	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	35	1,394	390
Alkali Seasonal Wetland Complex	3,723	2	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	61	0
Vernal Pool Complex	12,133	28	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	229	3
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	1	5	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	67	7
Nontidal Perennial Aquatic	5,567	4	55	2	8	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	117	21
Managed Wetland	70,798	22	0	6	23	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	5,764	73
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	1,542	2,226	201	1,138	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	12,125	1,702
Cropland	459,778	1,458	2,134	196	1,096	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	11,554	1,626
Grain and Hay Crops	1,507	0	0	0	6	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	136	118
Wheat	4,731	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	93	150	27	129	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	906	156
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	330	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	397	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	44	0
Safflower	15,592	30	0	0	78	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	105
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	63	893	88	242	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	1,339	331
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	10	71	0	2	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	22
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	11	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	39	2
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	306	0
Irrigated Alfalfa & Alfalfa Mixtures	81,032	508	375	16	158	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	1,285	186
Non-Irrigated Alfalfa & Alfalfa Mixtures	365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	4	101	0	8	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	2,068	8
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	70	0
Native Pasture	8,376	0	118	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	253	0
Non-irrigated native pasture	3,465	4	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	312	1
Misc. grasses	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	10	119	5	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	213	40
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	156	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	8	0	11	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	56
Beans (green)	122	3	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	2	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	237	2
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	21	216	22	111	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	776	182
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	152	0	1	29	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	271	110
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	0
Vineyards	33,980	320	13	18	171	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	1,576	190
Native Vegetation	28,103	149	71	4	68	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	615	91
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	68	9	1	5	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	19
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	84	92	5	42	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	571	76
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	13	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	19	5
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	4	1
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	6	5	0	3	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	54	3
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	58	87	4	32	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	360	61
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	80	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	7	0	0	1	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	54	2
Developed	90,660	79	26	7	42	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	243	66

Table 12E-37. Direct Effects on Natural Communities–Alternative 4 with Full Implementation (Late Long-Term) (acres) [Version February 24, 2015]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	206	1	20	2,078	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	235	2,114
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	2	1	2	13	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	11	16
Valley/Foothill Riparian	17,966	28	14	4	27	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	726	153
Grassland	78,047	287	219	22	129	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	35	2,562	424
Alkali Seasonal Wetland Complex	3,723	2	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	75	0
Vernal Pool Complex	12,133	28	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	400	3
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	1	5	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	126	7
Nontidal Perennial Aquatic	5,567	4	55	2	8	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	301	36
Managed Wetland	70,798	22	0	6	23	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	13,791	73
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	1,542	2,226	201	1,138	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	54,552	2,896
Cropland	459,778	1,458	2,134	196	1,096	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	50,795	2,734
Grain and Hay Crops	1,507	0	0	0	6	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	287	118
Wheat	4,731	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	9	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	93	150	27	129	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	3,223	227
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	641	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	764	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	44	0
Safflower	15,592	30	0	0	78	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	1,643	174
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	135	0
Corn	102,424	63	893	88	242	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	5,195	476
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	10	71	0	2	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	215	22
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	2,300	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	11	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	110	3
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	700	0
Irrigated Alfalfa & Alfalfa Mixtures	81,032	508	375	16	158	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	13,971	519
Non-Irrigated Alfalfa & Alfalfa Mixtures	365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	4	101	0	8	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	3,620	29
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	184	0
Native Pasture	8,376	0	118	0	0	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	1,669	6
Non-irrigated native pasture	3,465	4	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	323	3
Misc. grasses	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	24	4
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	29	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	10	119	5	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	406	40
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	323	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	8	0	11	44	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	1,020	70
Beans (green)	122	3	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	230	6
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	101	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	4	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	17	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	920	68
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	6	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	21	216	22	111	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	5,179	353
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	10	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	259	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	22	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	255	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	13	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	128	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	152	0	1	29	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	1,009	119
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	83	0
Vineyards	33,980	320	13	18	171	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	2,842	257
Native Vegetation	28,103	149	71	4	68	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	2,422	114
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	68	9	1	5	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	418	64
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	31	0
Non Cropland	27,328	84	92	5	42	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	3,757	162
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	13	0	0	5	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	110	10
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	12	3
Dairies	891	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	8	1
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	6	5	0	3	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	0	108	6
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	58	87	4	32	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	0	3,147	127
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	143	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	7	0	0	1	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	229	10
Developed	90,660	79	26	7	42	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	0	908	134

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Table 12E-38. Direct Effects on Natural Communities–Alternative 4 with Full Implementation (Early Long-Term) (acres) [Version February 24, 2015]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration					
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Construction and Inundation Permanent (Acres)	Construction Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	206	1	20	2,078	8	11			1	0	0	0	0	1	1	13	0	0	0	16	0	0	0	0	0	0	0	231	2,109
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	2	1	2	13	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	10	15
Valley/Foothill Riparian	17,966	28	14	4	27	89	88	0	0	0	0	0	0	0	0	0	389	7	5	2	403	6	6	0	0	0	0	0	540	125
Grassland	78,047	287	219	22	129	388	239	0	0	1	0	0	0	0	32	3	632	39	17	6	732	11	12	7	0	0	0	35	1,698	402
Alkali Seasonal Wetland Complex	3,723	2	0	0	0	45	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	0	0	0	0	0	0	0	61	0
Vernal Pool Complex	12,133	28	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	298	3
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	1	5	25	1	0	0	0	0	0	0	0	0	0	50	0	1	0	51	0	0	0	0	0	0	0	78	7
Nontidal Perennial Aquatic	5,567	4	55	2	8	24	12	0	0	0	0	0	0	0	6	0	51	10	1	0	68	19	8	0	0	0	0	0	170	29
Managed Wetland	70,798	22	0	6	23	24	44	56	112	1,783	1,628	1,765	69	0	232	0	1,479	161	14	2	7,301	0	0	0	0	0	0	0	7,346	73
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	1,542	2,226	201	1,138	629	363	0	0	0	0	0	0	0	823	207	7,104	2,476	829	95	11,534	252	153	19	0	1,480	1,000	0	18,683	1,854
Cropland	459,778	1,458	2,134	196	1,096	568	334	0	0	0	0	0	0	0	788	190	6,575	2,335	766	80	10,734	236	141	15	0	1,480	1,000	0	17,624	1,766
Grain and Hay Crops	1,507	0	0	0	6	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	86	0	180	118
Wheat	4,731	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	93	150	27	129	31	0	0	0	0	0	0	0	0	31	8	195	414	137	0	785	40	29	0	0	0	0	0	1,099	184
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	499	110	1	1	640	0	0	0	0	0	0	0	640	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	460	67	0	527	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	44	0
Safflower	15,592	30	0	0	78	5	27	0	0	0	0	0	0	0	0	19	177	78	0	0	274	14	8	0	0	0	0	0	323	114
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	63	893	88	242	0	0	0	0	0	0	0	0	0	0	11	124	310	194	9	647	56	32	0	0	160	245	0	2,065	363
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	10	71	0	2	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	22
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	10	0	0	0	0	0	16	10
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	11	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	14	16	0	31	0	0	0	0	0	0	0	42	2
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	268	158	0	426	0
Irrigated Alfalfa & Alfalfa Mixtures	81,032	508	375	16	158	0	12	0	0	0	0	0	0	0	25	123	1,217	465	81	1	1,913	58	29	0	0	257	110	0	3,221	215
Non-Irrigated Alfalfa & Alfalfa Mixtures	365	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	4	101	0	8	67	0	0	0	0	0	0	0	0	399	0	2,205	46	92	1	2,744	0	0	13	0	0	0	0	2,930	8
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	70	0
Native Pasture	8,376	0	118	0	0	1	0	0	0	0	0	0	0	0	226	0	450	41	25	0	742	0	0	0	0	0	0	0	861	0
Non-irrigated native pasture	3,465	4	0	0	0	301	1	0	0	0	0	0	0	0	3	0	6	0	0	0	9	0	0	0	0	0	0	0	313	1
Misc. grasses	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	10	119	5	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	95	0	264	40
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	79	0	207	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	8	0	11	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	56
Beans (green)	122	3	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration					
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Construction and Inundation Permanent (Acres)	Construction Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Melons, squash, and cucumbers (all types)	4,432	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	223	13	0	0	237	0	0	0	0	0	0	0	237	2
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	21	216	22	111	68	49	0	0	0	0	0	0	0	0	0	132	317	22	0	471	2	3	1	0	0	0	0	779	185
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	152	0	1	29	0	80	0	0	0	0	0	0	0	5	0	66	30	4	0	106	0	0	0	0	16	26	0	299	110
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	5	0
Vineyards	33,980	320	13	18	171	0	0	0	0	0	0	0	0	0	4	0	568	473	165	0	1,211	47	27	0	0	53	131	0	1,774	217
Native Vegetation	28,103	149	71	4	68	18	19	0	0	0	0	0	0	0	93	1	681	17	26	29	846	3	2	0	0	0	0	0	1,086	94
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	68	9	1	5	2	13	0	0	0	0	0	0	0	0	0	27	0	0	1	28	0	0	0	0	0	0	0	107	19
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	84	92	5	42	62	29	0	0	0	0	0	0	0	35	17	529	141	62	15	800	17	12	5	0	0	0	0	1,059	88
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	13	0	0	5	0	0	0	0	0	0	0	0	0	1	0	17	3	1	0	22	0	0	0	0	0	0	0	35	5
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	4	1
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	6	5	0	3	0	0	0	0	0	0	0	0	0	1	0	47	4	2	0	54	1	0	0	0	0	0	0	66	3
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	58	87	4	32	17	25	0	0	0	0	0	0	0	32	17	324	130	58	14	575	11	6	0	0	0	0	0	748	67
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	103	2	0	0	106	0	0	0	0	0	0	0	141	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	7	0	0	1	10	0	0	0	0	0	0	0	0	2	0	34	2	2	0	39	4	5	5	0	0	0	0	65	7
Developed	90,660	79	26	7	42	15	16	3	3	29	5	3	0	0	13	2	139	20	4	0	222	26	12	0	0	0	0	0	367	78

1 **Table 12E-39. Direct Effects on Wildlife and Plants–Alternative 4 with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version February 25, 2015]**

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals																																
Riparian brush rabbit																														0	0
Riparian habitat	2,909	15	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	3
Grassland habitat	3,103	171	0	16	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	171	57
Total	6,011	186	0	16	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	186	60
Riparian woodrat																														0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse																														0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	64	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	1,913	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	315	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	165	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	2,465	0
San Joaquin kit fox																														0	0
Breeding, foraging, and dispersal habitat	5,327	205	62	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	270	56
Total	5,327	205	62	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	270	56
Suisun shrew																														0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	58	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	47	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	105	0
Birds																														0	
California black rail																														0	0
Primary habitat	7,467	1	0	4	17	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	77	21
Secondary habitat	17,935	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	986	0
Total	25,403	1	0	4	17	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	1,064	21
California clapper rail																														0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	26	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	33	0
California least tern																														0	0
Nesting and Migratory Habitat	86,263	206	1	20	2,078	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	244	2,109
Total	86,263	206	1	20	2,078	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	244	2,109
Greater sandhill crane																														0	0
Roosting and foraging - Permanent	7,340	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Roosting and foraging - Temporary	16,579	**16**	0	19	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	85
Foraging	165,700	319	1,480	132	718	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	0	4,574	850
Total	189,619	335	1,480	155	784	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	0	4,590	939
Least Bell's vireo																														0	0
Migratory and breeding	14,850	18	14	4	23	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	414	114
Total	14,850	18	14	4	23	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	414	114
Suisun song sparrow																														0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	54	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	1,097	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	1,151	0
Swainson's hawk																														0	0
Foraging habitat	477,939	1,242	2,173	194	984	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	35	12,331	1,682
Nesting habitat	10,112	10	10	2	11	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	272	68
Total	488,051	1,252	2,183	197	995	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	35	12,604	1,750
Tricolored blackbird																														0	0
Breeding habitat-ag foraging	102,184	721	709	4	186	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	3,087	274
Breeding habitat-foraging	60,828	249	62	15	77	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	35	1,028	247
Breeding habitat-nesting	1,935	16	0	0	4	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	80
Nonbreeding habitat-foraging ag	196,713	125	963	129	414	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	4,835	597
Nonbreeding habitat-roosting	28,096	2	8	4	27	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	581	31
Nonbreeding habitat-foraging	34,313	41	157	7	50	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	657	56
Total	424,069	1,154	1,899	159	758	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	35	10,217	1,285
Western burrowing owl																														0	0
High-value habitat	152,087	430	490	24	196	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	35	5,420	465
Low-value habitat	254,435	745	1,658	109	638	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	5,930	890

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Total	406,523	1,175	2,148	133	834	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	35	11,350	1,355
Western yellow-billed cuckoo																														0	0
Breeding habitat	2,245	0	6	1	3	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	34	8
Migratory habitat	10,467	12	6	3	16	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	295	102
Total	12,712	12	12	4	20	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	330	111
White-tailed kite																														0	0
Breeding habitat	14,386	19	12	3	18	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	342	109
Foraging habitat	508,416	1,243	2,177	195	986	1,008	517	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	35	12,156	1,698
Total	522,802	1,261	2,189	198	1,004	1,090	605	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	35	12,498	1,806
Yellow-breasted chat																														0	0
Primary nesting and migratory habitat	8,495	10	6	2	14	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	112	74
Secondary nesting and migratory habitat	5,528	9	8	2	8	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	226	10
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	76	29
Total	14,864	18	14	4	23	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	414	114
Reptiles																															
Giant garter snake																														0	0
Aquatic - tidal	12,097	18	2	5	57	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	30	64
Aquatic - nontidal	19,184	22	175	9	49	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	365	70
Upland-high	21,649	46	84	5	59	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	673	222
Upland-moderate	25,953	256	36	23	90	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	35	1,087	174
Upland-low	5,683	29	4	5	11	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	164	16
Total	84,567	372	301	46	266	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	35	2,319	546
Aquatic breeding, foraging, and movement (miles)	2,802	7	6	1	6	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	61	17
Western pond turtle																														0	0
Aquatic habitat	81,666	206	58	24	2,078	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	347	2,125
Upland nesting and overwintering habitat	16,184	147	53	17	33	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	449	120
Upland nesting and overwintering habitat-NHD	12,680	35	51	1	26	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	250	77
Total	110,530	388	161	43	2,138	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	1,046	2,322
Aquatic habitat linear (miles) - NHD	1,425	3	4	1	4	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	32	7
Amphibians																															
California red-legged frog																														0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Upland cover and dispersal habitat	7,766	36	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	32
Total	7,925	38	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	32
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																														0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	29	0	0	32	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	35	321	32
Total	37,732	29	0	0	32	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	35	321	32
Invertebrates																															
Valley elderberry longhorn beetle																														0	0
Riparian vegetation	17,786	28	14	4	27	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	423	107
Nonriparian channels and grasslands	16,670	146	65	20	66	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	352	180
Total	34,456	174	79	24	92	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	775	287
California linderiella																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**179**	0	**21**	0	0	0	**201**	0	0	0	0	0	0	0	0	208	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Conservancy fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**179**	0	**21**	0	0	0	**201**	0	0	0	0	0	0	0	0	208	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Longhorn fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**179**	0	**21**	0	0	0	**201**	0	0	0	0	0	0	0	0	208	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Midvalley fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**179**	0	**21**	0	0	0	**201**	0	0	0	0	0	0	0	0	208	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Vernal pool fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**179**	0	**21**	0	0	0	**201**	0	0	0	0	0	0	0	0	208	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Vernal pool tadpole shrimp																														0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**179**	0	**21**	0	0	0	**201**	0	0	0	0	0	0	0	0	208	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Plants																															
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
San Joaquin spearscale total	14,933	41	30	0	7	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	323	7
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	58	42	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	8
Delta mudwort total	6,081	20	2	4	13	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	30	19
Mason's lilaeopsis total	6,081	20	2	4	13	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	30	19
Delta tule pea total	5,853	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	1	3
Suisun Marsh aster total	5,853	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	1	3
Side-flowering skullcap total	2,497	1	0	2	6	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	5	8
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	72	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	22	0
Vernal Pool Plants																															
Alkali milk-vetch																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**179**	0	**21**	0	0	0	**200**	0	0	0	0	0	0	0	0	207	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Legenere																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**179**	0	**21**	0	0	0	**200**	0	0	0	0	0	0	0	0	207	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Heckard's peppergrass																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**179**	0	**21**	0	0	0	**200**	0	0	0	0	0	0	0	0	207	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Boggs Lake hedge-hyssop																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**179**	0	**21**	0	0	0	**200**	0	0	0	0	0	0	0	0	207	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3
Dwarf downingia																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**179**	0	**21**	0	0	0	**200**	0	0	0	0	0	0	0	0	207	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	232	3

Table 12E-40. Direct Effects on Wildlife and Plants – Alternative 4 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version February 25, 2015]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals																																
Riparian brush rabbit																														0	0
Riparian habitat	2,909	15	0	0	3	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	77	38
Grassland habitat	3,103	171	0	16	41	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	214	76
Total	6,011	186	0	16	45	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	291	115
Riparian woodrat																														0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	51	33
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	51	33
Salt marsh harvest mouse																														0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	67	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	8	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	5,323	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	807	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	762	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	6,968	0
San Joaquin kit fox																														0	0
Breeding, foraging, and dispersal habitat	5,327	205	62	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	56
Total	5,327	205	62	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	56
Suisun shrew																														0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	342	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	401	0
Birds																														0	
California black rail																														0	0
Primary habitat	7,467	1	0	4	17	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	85	21
Secondary habitat	17,935	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	3,043	0
Total	25,403	1	0	4	17	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	3,128	21
California clapper rail																														0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	27	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	35	0
California least tern																														0	0
Nesting and Migratory Habitat	86,263	206	1	20	2,078	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	253	2,114
Total	86,263	206	1	20	2,078	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	253	2,114
Greater sandhill crane																														0	0
Roosting and foraging - Permanent	7,340	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Roosting and foraging - Temporary	16,579	**16**	0	19	66	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	57	85
Foraging	165,700	319	1,480	132	718	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	0	6,166	850
Total	189,619	335	1,480	155	784	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	0	6,223	939
Least Bell's vireo																														0	0
Migratory and breeding	14,850	18	14	4	23	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	688	135
Total	14,850	18	14	4	23	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	688	135
Suisun song sparrow																														0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	55	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	3,633	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	3,688	0
Swainson's hawk																														0	0
Foraging habitat	477,939	1,242	2,173	194	984	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	35	51,926	2,718
Nesting habitat	10,112	10	10	2	11	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	432	99
Total	488,051	1,252	2,183	197	995	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	35	52,357	2,817
Tricolored blackbird																														0	0
Breeding habitat-ag foraging	102,184	721	709	4	186	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	10,955	549
Breeding habitat-foraging	60,828	249	62	15	77	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	35	2,301	277
Breeding habitat-nesting	1,935	16	0	0	4	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	90	82
Nonbreeding habitat-foraging ag	196,713	125	963	129	414	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	25,043	963
Nonbreeding habitat-roosting	28,096	2	8	4	27	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	1,653	33
Nonbreeding habitat-foraging	34,313	41	157	7	50	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	0	1,539	59
Total	424,069	1,154	1,899	159	758	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	35	41,582	1,962

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Western burrowing owl																														0	0
High-value habitat	152,087	430	490	24	196	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	35	12,489	548
Low-value habitat	254,435	745	1,658	109	638	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	30,909	1,717
Total	406,523	1,175	2,148	133	834	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	35	43,398	2,265
Western yellow-billed cuckoo																														0	0
Breeding habitat	2,245	0	6	1	3	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	147	14
Migratory habitat	10,467	12	6	3	16	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	400	114
Total	12,712	12	12	4	20	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	547	127
White-tailed kite																														0	0
Breeding habitat	14,386	19	12	3	18	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	538	142
Foraging habitat	508,416	1,243	2,177	195	986	1,008	517	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	35	56,095	2,666
Total	522,802	1,261	2,189	198	1,004	1,090	605	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	35	56,633	2,808
Yellow-breasted chat																														0	0
Primary nesting and migratory habitat	8,495	10	6	2	14	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	231	90
Secondary nesting and migratory habitat	5,528	9	8	2	8	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	373	16
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	85	29
Total	14,864	18	14	4	23	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	688	135
Reptiles																															
Giant garter snake																														0	0
Aquatic - tidal	12,097	18	2	5	57	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	31	66
Aquatic - nontidal	19,184	22	175	9	49	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	683	91
Upland-high	21,649	46	84	5	59	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	902	222
Upland-moderate	25,953	256	36	23	90	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	35	1,789	198
Upland-low	5,683	29	4	5	11	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	208	34
Total	84,567	372	301	46	266	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	35	3,613	611
Aquatic breeding, foraging, and movement (miles)	2,802	7	6	1	6	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	157	18
Western pond turtle																														0	0
Aquatic habitat	81,666	206	58	24	2,078	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	379	2,146
Upland nesting and overwintering habitat	16,184	147	53	17	33	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	803	136
Upland nesting and overwintering habitat-NHD	12,680	35	51	1	26	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	509	79
Total	110,530	388	161	43	2,138	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	1,691	2,361
Aquatic habitat linear (miles) - NHD	1,425	3	4	1	4	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	117	9
Amphibians																															
California red-legged frog																														0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Upland cover and dispersal habitat	7,766	36	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	32
Total	7,925	38	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	32
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																														0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	29	0	0	32	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	35	662	32
Total	37,732	29	0	0	32	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	35	662	32
Invertebrates																															
Valley elderberry longhorn beetle																														0	0
Riparian vegetation	17,786	28	14	4	27	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	720	142
Nonriparian channels and grasslands	16,670	146	65	20	66	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	522	194
Total	34,456	174	79	24	92	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	1,242	336
California linderiella																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**65**	0	**305**	1	0	0	**372**	0	0	0	0	0	0	0	0	379	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Conservancy fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**65**	0	**305**	1	0	0	**372**	0	0	0	0	0	0	0	0	379	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Longhorn fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**65**	0	**305**	1	0	0	**372**	0	0	0	0	0	0	0	0	379	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Midvalley fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**65**	0	**305**	1	0	0	**372**	0	0	0	0	0	0	0	0	379	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Vernal pool fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**65**	0	**305**	1	0	0	**372**	0	0	0	0	0	0	0	0	379	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Vernal pool tadpole shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	1	0	0	0	0	**65**	0	**305**	1	0	0	**372**	0	0	0	0	0	0	0	0	379	2
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Plants																															
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	**4**	0	0	0	0	0	0	0	0	4	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	306	0
San Joaquin spearscale total	14,933	41	30	0	7	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	750	8
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	**4**	0	0	0	0	0	0	0	0	4	0
Delta button celery total	3,361	58	42	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	107	16
Delta mudwort total	6,081	20	2	4	13	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	32	20
Mason's lilaeopsis total	6,081	20	2	4	13	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	32	20
Delta tule pea total	5,853	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	2	3
Suisun Marsh aster total	5,853	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	2	3
Side-flowering skullcap total	2,497	1	0	2	6	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	6	9
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**	6	0	0	0	0	0	5	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	73	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	73	0
Vernal Pool Plants																															
Alkali milk-vetch																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	23	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**65**	0	**305**	1	0	0	**370**	0	0	0	0	0	0	0	0	378	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Legenere																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	23	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**65**	0	**305**	1	0	0	**370**	0	0	0	0	0	0	0	0	378	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Heckard's peppergrass																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	23	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**65**	0	**305**	1	0	0	**370**	0	0	0	0	0	0	0	0	378	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Boggs Lake hedge-hyssop																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	23	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**65**	0	**305**	1	0	0	**370**	0	0	0	0	0	0	0	0	378	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3
Dwarf downingia																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	23	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**65**	0	**305**	1	0	0	**370**	0	0	0	0	0	0	0	0	378	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	403	3

Table 12E-41. Direct Effects on Wildlife and Plants – Alternative 4 with Tunnel Alignment and Isolated Conveyance (Early Long-Term) (acres) [Version February 25, 2015]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals																																
Riparian brush rabbit																														0	0
Riparian habitat	2,909	15	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	21	10
Grassland habitat	3,103	171	0	16	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	0	0	0	0	0	173	63
Total	6,011	186	0	16	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	12	0	0	0	0	0	194	72
Riparian woodrat																														0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	6	6
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	6	6
Salt marsh harvest mouse																														0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	66	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	15	36	670	825	1,067	6	0	0	0	0	0	0	0	1,898	721	0	0	0	0	0	0	0	2,619	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	5	16	226	87	52	1	0	0	0	0	0	0	0	140	248	0	0	0	0	0	0	0	387	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	5	9	144	174	61	1	0	0	0	0	0	0	0	236	158	0	0	0	0	0	0	0	395	0
Total	35,588	0	0	0	0	0	0	26	69	1,106	1,086	1,181	8	0	0	0	0	0	0	0	2,275	1,201	0	0	0	0	0	0	0	3,476	0
San Joaquin kit fox																														0	0
Breeding, foraging, and dispersal habitat	5,327	205	62	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	271	56
Total	5,327	205	62	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	271	56
Suisun shrew																														0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	0	59	0	0	0	0	0	0	0	0	59	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	58	22	1	0	0	0	0	0	0	0	81	24	0	0	0	0	0	0	0	105	0
Total	7,515	0	0	0	0	0	0	7	17	59	58	22	1	0	0	0	0	0	0	0	140	24	0	0	0	0	0	0	0	164	0
Birds																														0	
California black rail																														0	0
Primary habitat	7,467	1	0	4	17	5	0	0	0	71	0	0	0	0	0	0	0	0	1	0	2	71	0	0	0	0	0	0	0	79	21
Secondary habitat	17,935	0	0	0	0	0	0	29	63	0	607	757	4	0	0	0	1	0	0	0	1,367	93	0	0	0	0	0	0	0	1,460	0
Total	25,403	1	0	4	17	5	0	29	63	71	607	757	4	0	0	0	1	0	1	0	1,369	164	0	0	0	0	0	0	0	1,539	21
California clapper rail																														0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	26	0
Secondary habitat	6,420	0	0	0	0	0	0	3	6	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	9	0
Total	6,716	0	0	0	0	0	0	3	6	26	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	35	0
California least tern																														0	0
Nesting and Migratory Habitat	86,263	206	1	20	2,078	8	11	0	0	1	0	0	0	0	1	1	13	13	4	0	33	0	0	0	0	0	0	0	0	248	2,109
Total	86,263	206	1	20	2,078	8	11	0	0	1	0	0	0	0	1	1	13	13	4	0	33	0	0	0	0	0	0	0	0	248	2,109
Greater sandhill crane																														0	0
Roosting and foraging - Permanent	7,340	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Roosting and foraging - Temporary	16,579	**16**	0	19	66	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	57	85
Foraging	165,700	319	1,480	132	718	0	0	0	0	0	0	0	0	0	11	0	1,407	827	381	29	2,655	0	0	0	0	0	333	750	0	5,540	850
Total	189,619	335	1,480	155	784	0	0	0	0	0	0	0	0	0	11	0	1,448	827	381	29	2,696	0	0	0	0	0	333	750	0	5,597	939
Least Bell's vireo																														0	0
Migratory and breeding	14,850	18	14	4	23	83	88	1	1	6	1	1	0	0	0	0	381	6	4	2	403	0	6	4	0	0	0	0	0	524	119
Total	14,850	18	14	4	23	83	88	1	1	6	1	1	0	0	0	0	381	6	4	2	403	0	6	4	0	0	0	0	0	524	119
Suisun song sparrow																														0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	55	0
Secondary habitat	23,986	0	0	0	0	0	0	32	70	0	623	851	5	0	0	0	0	0	0	0	1,479	102	0	0	0	0	0	0	0	1,581	0
Total	27,707	0	0	0	0	0	0	32	70	55	624	851	5	0	0	0	0	0	0	0	1,479	157	0	0	0	0	0	0	0	1,637	0
Swainson's hawk																														0	0
Foraging habitat	477,939	1,242	2,173	194	984	996	504	24	45	324	216	97	0	0	1,073	192	7,437	2,007	604	37	12,057	0	197	122	726	0	1,368	746	35	19,560	1,804
Nesting habitat	10,112	10	10	2	11	79	54	0	0	4	2	0	0	0	0	0	217	2	2	1	228	0	6	6	0	0	0	0	0	332	74
Total	488,051	1,252	2,183	197	995	1,075	558	24	46	328	218	97	0	0	1,073	193	7,654	2,009	605	38	12,285	0	202	128	726	0	1,368	746	35	19,892	1,878
Tricolored blackbird																														0	0
Breeding habitat-ag foraging	102,184	721	709	4	186	477	84	0	0	0	0	0	0	0	554	143	2,341	421	7	1	1,126	2,341	98	57	705	0	1,125	237	0	7,539	331
Breeding habitat-foraging	60,828	249	62	15	77	105	155	11	20	294	281	165	1	0	7	0	98	2	0	0	468	413	11	11	7	0	0	0	35	1,369	258
Breeding habitat-nesting	1,935	16	0	0	4	13	75	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	31	80
Nonbreeding habitat-foraging ag	196,713	125	963	129	414	0	54	0	0	0	0	0	0	0	223	27	2,870	986	548	29	1,813	2,870	56	32	14	0	155	525	0	6,521	629
Nonbreeding habitat-roosting	28,096	2	8	4	27	8	0	23	43	0	315	282	3	0	91	0	0	4	3	1	765	0	0	0	0	0	0	0	0	784	31
Nonbreeding habitat-foraging	34,313	41	157	7	50	0	0	0	0	0	0	0	0	0	42	3	547	37	17	6	104	547	0	0	0	0	0	0	0	850	56
Total	424,069	1,154	1,899	159	758	603	367	34	63	294	596	448	4	0	917	174	5,857	1,451	574	37	4,276	6,172	165	100	726	0	1,281	761	35	17,093	1,385

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Western burrowing owl																														0	0
High-value habitat	152,087	430	490	24	196	882	245	15	24	212	219	105	1	0	886	4	4,039	146	157	34	5,840	0	13	13	7	0	268	86	35	8,069	478
Low-value habitat	254,435	745	1,658	109	638	98	144	0	15	25	6	2	0	0	192	157	2,994	1,323	298	13	5,025	0	146	83	719	0	972	509	0	9,872	974
Total	406,523	1,175	2,148	133	834	979	389	15	38	237	225	107	1	0	1,077	160	7,033	1,469	455	46	10,865	0	159	96	726	0	1,240	594	35	17,941	1,452
Western yellow-billed cuckoo																														0	0
Breeding habitat	2,245	0	6	1	3	26	5	0	0	0	0	0	0	0	0	0	52	0	1	0	53	0	0	0	0	0	0	0	0	85	8
Migratory habitat	10,467	12	6	3	16	57	83	0	0	0	0	0	0	0	0	0	248	2	1	1	254	0	0	0	0	0	0	0	0	328	103
Total	12,712	12	12	4	20	83	88	0	0	0	0	0	0	0	0	0	300	3	2	2	307	0	0	0	0	0	0	0	0	413	111
White-tailed kite																														0	0
Breeding habitat	14,386	19	12	3	18	82	88	0	0	4	2	0	0	0	0	0	284	3	2	2	298	0	6	6	0	0	0	0	0	416	115
Foraging habitat	508,416	1,243	2,177	195	986	1,008	517	0	79	1,054	1,124	1,360	23	0	0	193	7,288	1,999	605	38	13,764	0	197	123	726	0	0	0	35	19,170	1,821
Total	522,802	1,261	2,189	198	1,004	1,090	605	0	79	1,059	1,127	1,360	23	0	0	193	7,572	2,001	607	40	14,061	0	203	130	726	0	0	0	35	19,586	1,936
Yellow-breasted chat																														0	0
Primary nesting and migratory habitat	8,495	10	6	2	14	9	58	0	0	0	0	0	0	0	0	0	105	1	2	1	109	0	6	4	0	0	0	0	0	140	79
Secondary nesting and migratory habitat	5,528	9	8	2	8	3	0	0	0	0	0	0	0	0	0	0	276	4	2	1	283	0	0	0	0	0	0	0	0	302	10
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	1	6	1	1	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	82	29
Total	14,864	18	14	4	23	83	88	1	1	6	1	1	0	0	0	0	381	6	4	2	403	0	6	4	0	0	0	0	0	524	119
Reptiles																															
Giant garter snake																														0	0
Aquatic - tidal	12,097	18	2	5	57	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	30	64
Aquatic - nontidal	19,184	22	175	9	49	59	13	0	0	0	0	0	0	0	8	0	134	12	3	0	158	0	20	10	0	0	0	0	0	434	81
Upland-high	21,649	46	84	5	59	178	158	0	0	0	0	0	0	0	41	0	420	33	32	17	544	0	0	0	0	0	0	0	0	852	222
Upland-moderate	25,953	256	36	23	90	60	61	0	0	0	0	0	0	0	66	1	722	69	12	1	871	0	6	8	0	0	0	0	35	1,263	183
Upland-low	5,683	29	4	5	11	1	0	0	0	0	0	0	0	0	6	0	122	1	1	1	131	0	4	3	0	0	0	0	0	169	19
Total	84,567	372	301	46	266	306	234	0	0	0	0	0	0	0	122	2	1,398	115	48	20	1,705	0	30	22	0	0	0	0	35	2,749	568
Aquatic breeding, foraging, and movement (miles)	2,802	7	6	1	6	5	9	0	0	0	0	0	0	0	4	1	49	11	7	2	74	0	0	0	0	0	0	0	0	91	17
Western pond turtle																														0	0
Aquatic habitat	81,666	206	58	24	2,078	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	19	9	0	0	0	0	0	366	2,134
Upland nesting and overwintering habitat	16,184	147	53	17	33	109	70	2	4	108	98	35	1	0	2	0	44	2	0	0	295	0	3	8	6	0	0	0	0	613	129
Upland nesting and overwintering habitat-NHD	12,680	35	51	1	26	21	49	4	7	11	15	7	0	0	7	1	164	10	6	2	235	0	0	0	0	0	0	0	0	341	77
Total	110,530	388	161	43	2,138	167	141	51	11	120	113	41	1	0	9	1	208	12	6	2	575	0	22	17	6	0	0	0	0	1,320	2,339
Aquatic habitat linear (miles) - NHD	1,425	3	4	1	4	1	3	0	0	1	1	1	0	0	2	1	26	8	4	1	46	0	0	0	0	0	0	0	0	54	7
Amphibians																															
California red-legged frog																														0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Upland cover and dispersal habitat	7,766	36	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	32
Total	7,925	38	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	32
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																														0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	29	0	0	32	42	0	0	0	0	0	0	0	0	140	0	135	0	0	0	275	0	0	0	0	0	0	0	35	399	32
Total	37,732	29	0	0	32	42	0	0	0	0	0	0	0	0	140	0	135	0	0	0	275	0	0	0	0	0	0	0	35	399	32
Invertebrates																															
Valley elderberry longhorn beetle																														0	0
Riparian vegetation	17,786	28	14	4	27	83	76	0	0	0	0	0	0	0	0	0	389	7	5	2	403	0	6	6	0	0	0	0	0	534	113
Nonriparian channels and grasslands	16,670	146	65	20	66	41	94	1	1	14	9	2	0	0	10	0	107	15	6	1	164	0	3	6	0	0	0	0	0	420	186
Total	34,456	174	79	24	92	125	170	1	1	14	9	2	0	0	10	0	497	22	10	2	568	0	9	13	0	0	0	0	0	954	299
California linderiella																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**269**	0	0	0	0	0	0	0	0	276	2
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Conservancy fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**269**	0	0	0	0	0	0	0	0	276	2
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Longhorn fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**269**	0	0	0	0	0	0	0	0	276	**2**
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Midvalley fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**269**	0	0	0	0	0	0	0	0	276	2
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Vernal pool fairy shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**269**	0	0	0	0	0	0	0	0	276	2
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Vernal pool tadpole shrimp																														0	0
Vernal pool complex	9,607	23	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Degraded vernal pool complex	2,713	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**269**	0	0	0	0	0	0	0	0	276	2
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Plants																															
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	4	0	83	1	0	0	90	0	0	0	0	0	0	0	0	90	0
San Joaquin spearscale total	14,933	41	30	0	7	56	0	0	0	0	0	0	0	0	123	0	255	1	0	0	380	0	0	1	0	0	0	0	0	508	8
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	58	42	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	100	10
Delta mudwort total	6,081	20	2	4	13	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	6	0	0	0	0	0	0	0	0	31	19
Mason's lilaeopsis total	6,081	20	2	4	13	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	6	0	0	0	0	0	0	0	0	31	19
Delta tule pea total	5,853	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	1	3
Suisun Marsh aster total	5,853	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	1	3
Side-flowering skullcap total	2,497	1	0	2	6	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	0	0	0	0	0	0	0	5	8
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	3	0	0	0	0	0	0	3
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	73	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	73	0
Vernal Pool Plants																															
Alkali milk-vetch																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**268**	0	0	0	0	0	0	0	0	275	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Legenere																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**268**	0	0	0	0	0	0	0	0	275	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Heckard's peppergrass																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**268**	0	0	0	0	0	0	0	0	275	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Boggs Lake hedge-hyssop																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**268**	0	0	0	0	0	0	0	0	275	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3
Dwarf downingia																														0	0
Vernal pool complex	9,557	21	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	0
Degraded vernal pool complex	2,576	7	0	**0**	2	0	0	0	0	0	0	0	0	0	**134**	0	**134**	0	0	0	**268**	0	0	0	0	0	0	0	0	275	2
Alkali seasonal wetland	188	2	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	12,320	31	0	0	3	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	300	3

Table 12E-42. Direct Effects on Wildlife and Plants – Alternative 4 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version February 9, 2015]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Tunnel/Pipeline Facilities Construction				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation		CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss	
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals																																
Riparian brush rabbit																														0	0
Riparian habitat	137	12	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	12	4
Grassland habitat	394	135	0	15	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	135	53
Total	532	146	0	15	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	147	57
Riparian woodrat																														0	0
Habitat	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse																														0	0
Tidal brackish emergent wetland primary	3,529	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	67	0
Tidal brackish emergent wetland secondary	2,716	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	636	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3	0
Managed wetland—wetland primary, low long-term conservation value	21,875	0	0	0	0	0	0	4	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	5,323	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	807	0
Managed wetland—upland, low long-term conservation value	3,776	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	762	0
Total	35,331	0	0	0	0	0	0	13	21	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,586	0	0	0	0	0	0	0	6,962	0
San Joaquin kit fox																														0	0
Breeding, foraging, and dispersal habitat	1,073	154	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	53
Total	1,073	154	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	53
Suisun shrew																														0	0
Primary habitat	3,004	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	60	0
Secondary habitat	4,313	0	0	0	0	0	0	3	6	0	97	208	12	0	0	0	0	0	0	0	318	9	0	0	0	0	0	0	0	327	0
Total	7,317	0	0	0	0	0	0	3	6	60	97	208	12	0	0	0	0	0	0	0	377	9	0	0	0	0	0	0	0	387	0
Birds																															
California black rail																														0	0
Primary habitat	4,584	0	0	1	4	5	0	0	0	71	0	0	0	0	0	0	0	0	1	1	1	71	0	0	0	0	0	0	0	77	6
Secondary habitat	16,831	0	0	0	0	0	0	7	11	0	587	2,240	118	0	0	0	0	0	0	0	2,945	19	0	0	0	0	0	0	0	2,964	0
Total	21,415	0	0	1	4	5	0	7	11	71	587	2,240	118	0	0	0	0	0	1	1	2,947	89	0	0	0	0	0	0	0	3,041	6
California clapper rail																														0	0
Primary habitat	178	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	27	0
Secondary habitat	5,942	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	5	0
Total	6,120	0	0	0	0	0	0	2	3	27	0	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	0
California least tern																														0	0
Nesting and Migratory Habitat	41,259	188	0	6	2,014	7	0	0	0	1	0	0	0	0	0	0	9	6	7	0	25	0	0	0	0	0	0	0	0	220	2,021
Total	41,259	188	0	6	2,014	7	0	0	0	1	0	0	0	0	0	0	9	6	7	0	25	0	0	0	0	0	0	0	0	220	2,021
Greater sandhill crane																														0	0
Roosting and foraging - Permanent	6,291	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Roosting and foraging - Temporary	1,414	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	24	0	0	0	0	0	0	0	0	24	3
Foraging	36,462	30	186	91	156	0	0	0	0	0	0	0	0	0	1	0	988	466	506	107	2,068	0	0	0	0	0	19	85	0	2,387	247
Total	44,167	30	186	98	156	0	0	0	0	0	0	0	0	0	1	0	1,012	466	506	107	2,092	0	0	0	0	0	19	85	0	2,411	254
Least Bell's vireo																														0	0
Migratory and breeding	5,285	12	12	2	10	70	31	2	1	8	1	2	0	0	0	0	405	16	15	2	452	0	0	0	0	0	0	0	0	546	44
Total	5,285	12	12	2	10	70	31	2	1	8	1	2	0	0	0	0	405	16	15	2	452	0	0	0	0	0	0	0	0	546	44
Suisun song sparrow																														0	0
Primary habitat	3,485	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	55	0
Secondary habitat	23,082	0	0	0	0	0	0	9	16	0	657	2,712	140	0	0	0	0	0	0	0	3,510	25	0	0	0	0	0	0	0	3,535	0
Total	26,567	0	0	0	0	0	0	9	16	55	657	2,712	140	0	0	0	0	0	0	0	3,510	80	0	0	0	0	0	0	0	3,590	0
Swainson's hawk																														0	0
Foraging habitat	97,257	330	185	112	240	940	217	61	63	411	349	666	11	0	204	0	3,855	673	528	108	6,929	0	80	46	40	145	387	636	0	9,671	615
Nesting habitat	3,511	0	9	2	6	67	29	0	0	2	4	2	0	0	0	0	222	11	12	1	254	0	0	0	0	0	0	0	0	331	37
Total	100,768	330	195	114	246	1,007	246	62	63	413	353	668	11	0	204	0	4,077	684	540	109	7,183	0	80	46	40	145	387	636	0	10,002	652
Tricolored blackbird																														0	0
Breeding habitat-ag foraging	16,733	88	0	0	11	466	23	2	0	0	0	0	0	0	38	0	229	0	0	0	40	229	26	18	1	0	63	220	0	1,133	52
Breeding habitat-foraging	27,288	177	0	15	71	88	63	10	11	382	299	692	18	0	0	0	1	0	0	0	1,019	393	0	0	6	0	0	0	0	1,684	148
Breeding habitat-nesting	587	12	0	0	3	8	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	28
Nonbreeding habitat-foraging ag	31,084	16	70	83	113	0	36	0	0	0	0	0	0	0	60	0	1,559	266	377	91	794	1,559	20	12	21	86	64	289	0	2,920	243
Nonbreeding habitat-roosting	21,148	0	6	2	8	8	0	5	7	0	404	1,119	29	0	34	0	0	10	4	1	1,614	0	0	0	0	0	0	0	0	1,629	9
Nonbreeding habitat-foraging	8,815	8	115	4	13	0	0	0	0	8	44	465	7	0	8	0	486	9	26	16	575	495	0	0	0	0	0	0	0	1,194	16
Total	105,655	302	192	103	219	570	146	17	19	391	746	2,276	54	0	141	0	2,276	286	407	108	4,042	2,677	46	29	28	86	127	510	0	8,578	497

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Western burrowing owl																														0	0
High-value habitat	53,091	260	122	19	126	848	131	39	40	324	215	795	81	0	92	0	1,628	18	191	115	3,537	0	0	0	4	0	86	109	0	4,965	276
Low-value habitat	35,072	57	46	40	89	66	16	0	4	44	21	14	0	0	114	0	1,925	391	127	3	2,644	0	79	42	39	153	361	302	0	3,747	187
Total	88,163	317	167	59	215	914	147	39	44	368	236	809	81	0	206	0	3,553	409	317	117	6,181	0	79	42	42	153	446	411	0	8,711	463
Western yellow-billed cuckoo																														0	0
Breeding habitat	1,102	0	5	0	2	19	1	0	0	0	0	0	0	0	0	0	40	13	10	0	62	0	0	0	0	0	0	0	0	86	3
Migratory habitat	3,288	8	6	2	7	51	30	0	0	0	0	0	0	0	0	0	267	2	3	1	274	0	0	0	0	0	0	0	0	338	40
Total	4,390	8	11	2	9	70	31	0	0	0	0	0	0	0	0	0	307	14	13	1	336	0	0	0	0	0	0	0	0	424	43
White-tailed kite																														0	0
Breeding habitat	4,985	8	11	2	9	69	31	0	0	2	4	2	0	0	0	0	288	11	13	1	322	0	0	0	0	0	0	0	0	409	43
Foraging habitat	126,994	330	186	112	240	946	217	0	71	1,372	1,133	4,528	425	0	0	0	3,696	661	529	109	12,524	0	80	46	41	148	481	600	0	15,336	616
Total	131,979	338	196	114	249	1,015	249	0	71	1,374	1,137	4,530	425	0	0	0	3,984	672	542	110	12,845	0	80	46	41	148	481	600	0	15,745	658
Yellow-breasted chat																														0	0
Primary nesting and migratory habitat	2,742	7	5	1	7	5	15	0	0	0	0	0	0	0	0	0	123	11	12	1	147	0	0	0	0	0	0	0	0	164	24
Secondary nesting and migratory habitat	1,879	5	7	1	3	2	0	0	0	0	0	0	0	0	0	0	282	5	3	0	291	0	0	0	0	0	0	0	0	305	4
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	677	0	0	0	0	63	16	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	77	16
Total	5,303	12	12	2	10	70	31	2	1	8	1	2	0	0	0	0	405	16	15	2	452	0	0	0	0	0	0	0	0	546	44
Reptiles																															
Giant garter snake																														0	0
Aquatic - tidal	3,905	8	1	1	36	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	18	38
Aquatic - nontidal	7,521	6	53	3	11	46	3	0	0	0	0	0	0	0	1	0	93	2	5	2	102	0	1	0	0	0	0	0	0	206	18
Upland-high	8,436	8	56	3	21	159	52	0	0	0	0	0	0	0	4	0	241	7	26	39	317	0	0	0	0	0	0	0	0	540	76
Upland-moderate	8,863	178	11	19	58	44	19	0	0	0	0	0	0	0	26	0	664	51	23	3	767	0	0	0	0	0	0	0	0	1,000	96
Upland-low	1,029	24	0	5	9	1	0	0	0	0	0	0	0	0	2	0	126	1	1	0	130	0	1	0	0	0	0	0	0	155	14
Total	29,754	222	121	32	135	258	74	0	0	0	0	0	0	0	34	0	1,124	61	54	44	1,316	0	1	1	0	0	0	0	0	1,919	241
Aquatic breeding, foraging, and movement (miles)	570	2	1	0	2	4	3	0	0	0	0	0	0	0	1	0	32	3	5	2	43	0	0	0	0	0	0	0	0	50	5
Western pond turtle																														0	0
Aquatic habitat	40,796	192	53	8	2,023	29	4	9	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	284	2,035
Upland nesting and overwintering habitat	6,420	112	7	16	26	92	58	3	5	86	95	139	2	0	1	0	29	1	1	0	363	0	0	0	12	0	0	0	0	585	100
Upland nesting and overwintering habitat-NHD	4,596	23	36	1	15	18	18	9	9	48	11	64	1	0	2	0	118	1	5	5	273	0	0	0	0	0	0	0	0	351	33
Total	51,812	327	96	25	2,065	139	79	21	14	134	107	203	3	0	2	0	147	2	6	6	646	0	0	0	12	0	0	0	0	1,220	2,168
Aquatic habitat linear (miles) - NHD	325	1	0	0	1	1	1	0	0	2	2	7	1	0	1	0	15	2	2	1	33	0	0	0	0	0	0	0	0	36	2
Amphibians																															
California red-legged frog																														0	0
Aquatic habitat	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	1,774	13	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	29
Total	1,788	13	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	29
Aquatic habitat (miles)	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																														0	0
Aquatic breeding habitat	5,048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	9,973	13	0	0	29	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	56	29
Total	15,021	13	0	0	29	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	56	29
Invertebrates																															
Valley elderberry longhorn beetle																														0	0
Riparian vegetation	5,604	14	12	2	12	71	23	0	0	0	0	0	0	0	0	0	410	16	15	2	443	0	1	0	0	0	0	0	0	540	38
Nonriparian channels and grasslands	4,730	93	27	17	31	31	37	1	2	11	10	18	0	0	2	0	51	4	10	4	114	0	0	0	0	0	0	0	0	265	86
Total	10,334	107	39	20	43	101	61	1	2	11	10	18	0	0	2	0	461	21	25	5	557	0	1	0	0	0	0	0	0	805	124
California linderiella																														0	0
Vernal pool complex	5,838	**13**	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	887	7	0	0	**2**	0	0	0	0	1	0	0	0	0	**0**	0	**0**	0	0	0	1	0	0	0	0	0	0	0	0	8	2
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Conservancy fairy shrimp																														0	0
Vernal pool complex	5,838	**13**	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	887	7	0	0	**2**	0	0	0	0	1	0	0	0	0	**0**	0	**0**	0	0	0	1	0	0	0	0	0	0	0	0	8	2
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Longhorn fairy shrimp																														0	0
Vernal pool complex	5,838	**13**	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	887	7	0	0	**2**	0	0	0	0	1	0	0	0	0	**0**	0	**0**	0	0	0	1	0	0	0	0	0	0	0	0	8	2
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Midvalley fairy shrimp																														0	0
Vernal pool complex	5,838	**13**	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	887	7	0	0	**2**	0	0	0	0	1	0	0	0	0	**0**	0	**0**	0	0	0	1	0	0	0	0	0	0	0	0	8	2
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss	
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Vernal pool fairy shrimp																														0	0
Vernal pool complex	5,838	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	887	7	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	8	2
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Vernal pool tadpole shrimp																														0	0
Vernal pool complex	5,838	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	887	7	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	8	2
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Plants																															
Brittlescale total	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	3,416	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	4	0	0	0	0	0	0	0	0	4	0
San Joaquin spearscale total	8,377	29	0	0	7	56	0	0	0	1	0	0	0	0	1	0	47	0	1	0	50	0	0	0	0	0	0	0	0	134	7
Carquinez goldenbush total	695	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	483	41	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	7
Delta mudwort total	2,105	10	0	2	5	3	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	17	8
Mason's lilaeopsis total	2,105	10	0	2	5	3	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	17	8
Delta tule pea total	5,399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Suisun Marsh aster total	5,399	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Side-flowering skullcap total	670	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2
Slough thistle total	371	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,165	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	73	0
Suisun thistle total	1,169	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	73	0
Vernal Pool Plants																															
Alkali milk-vetch																														0	0
Vernal pool complex	5,953	12	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	753	7	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2
Alkali seasonal wetland	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Legenere																														0	0
Vernal pool complex	5,953	12	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	753	7	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2
Alkali seasonal wetland	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Heckard's peppergrass																														0	0
Vernal pool complex	5,953	12	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	753	7	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2
Alkali seasonal wetland	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Boggs Lake hedge-hyssop																														0	0
Vernal pool complex	5,953	12	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	753	7	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2
Alkali seasonal wetland	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3
Dwarf downingia																														0	0
Vernal pool complex	5,953	12	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0
Degraded vernal pool complex	753	7	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2
Alkali seasonal wetland	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	6,725	21	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	22	3

Table 12E-43. Indirect Effects–Alternative 4 [Version January 29, 2015]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration		Total Allowable Indirect Effects	
		O&M (Acres)	Geotechnical (acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals										
Riparian brush rabbit										
Riparian habitat	2,909	0	0	17	0	0	50	74	0	142
Grassland habitat	3,103	0	1	197	0	0	51	45	0	293
Total	6,011	0	1	214	0	0	102	119	0	435
Riparian woodrat									0	0
Habitat	2,166	0	0	2	0	0	18	63	0	84
Total	2,166	0	0	2	0	0	18	63	0	84
Salt marsh harvest mouse									0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	92	0	0	92
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	0	429	0	0	429
San Joaquin kit fox									0	0
Breeding, foraging, and dispersal habitat	5,327	0	0	213	0	0	0	0	0	213
Total	5,327	0	0	213	0	0	0	0	0	213
Suisun shrew									0	0
Primary habitat	3,128	0	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	0	167	0	0	167
Birds										
California black rail									0	0
Primary habitat	7,467	0	5	136	0	5	364	0	0	509
Secondary habitat	17,935	0	0	4	0	0	428	0	0	432
Total	25,403	0	5	139	0	5	793	0	0	941
California clapper rail									0	0
Primary habitat	296	0	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	0	542	0	0	542
California least tern									0	0
Nesting and Migratory Habitat	86,263	0	22	1,296	0	44	2,787	105	0	4,254
Total	86,263	0	22	1,296	0	44	2,787	105	0	4,254
Greater sandhill crane									0	0
Roosting and foraging - Permanent	7,340	0	33	143	0	0	0	0	0	176
Roosting and foraging - Temporary	16,579	0	17	1,011	0	0	174	0	0	1,202
Foraging	165,700	0	336	6,961	0	0	1,825	0	0	9,122
Total	189,619	0	386	8,116	0	0	1,999	0	0	10,501
Least Bell's vireo									0	0
Migratory and breeding	14,850	0	4	233	0	244	618	88	0	1,189
Total	14,850	0	4	233	0	244	618	88	0	1,189
Suisun song sparrow									0	0
Primary habitat	3,722	0	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	0	871	0	0	871
Swainson's hawk									0	0
Foraging habitat	477,939	0	290	6,034	0	2,275	5,991	5,133	0	19,723
Nesting habitat	10,112	0	3	185	0	255	361	100	0	904
Total	488,051	0	292	6,220	0	2,530	6,352	5,233	0	20,627
Tricolored blackbird									0	0
Breeding habitat-ag foraging	102,184	6	3	970	0	1,612	1,152	1,874	6	5,612
Breeding habitat-foraging	60,828	8	0	801	0	931	2,389	296	8	4,418
Breeding habitat-nesting	1,935	1	0	37	0	89	43	57	1	226
Nonbreeding habitat-foraging ag	196,713	0	352	6,230	0	38	2,812	2,089	0	11,521
Nonbreeding habitat-roosting	28,096	1	4	413	0	49	1,212	14	1	1,692
Nonbreeding habitat-foraging	34,313	0	8	741	0	0	1,322	35	0	2,106
Total	424,069	15	368	9,192	0	2,721	8,930	4,365	15	25,575
Western burrowing owl									0	0
High-value habitat	152,087	0	15	1,399	0	1,202	3,038	235	0	5,889
Low-value habitat	254,435	0	132	3,388	0	512	1,617	3,622	0	9,270
Total	406,523	0	147	4,787	0	1,714	4,655	3,857	0	15,159
Western yellow-billed cuckoo									0	0
Breeding habitat	2,245	0	0	50	0	24	98	30	0	202
Migratory habitat	10,467	0	3	157	0	220	397	43	0	822
Total	12,712	0	4	207	0	244	495	73	0	1,023

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration		Total Allowable Indirect Effects	
		O&M (Acres)	Geotechnical (acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
White-tailed kite									0	0
Breeding habitat	14,386	0	3	242	0	269	543	119	0	1,176
Foraging habitat	508,416	0	291	6,059	0	2,297	6,456	4,731	0	19,834
Total	522,802	0	294	6,301	0	2,566	6,999	4,850	0	21,010
Yellow-breasted chat									0	0
Primary nesting and migratory habitat	8,495	0	2	126	0	80	387	72	0	668
Secondary nesting and migratory habitat	5,528	0	2	108	0	5	172	16	0	304
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	160	74	0	0	234
Total	14,864	0	4	235	0	244	634	88	0	1,205
Reptiles										
Giant garter snake									0	0
Aquatic - tidal	12,097	0	5	206	0	13	219	14	0	457
Aquatic - nontidal	19,184	0	7	157	0	133	103	23	0	424
Upland-high	21,649	0	6	322	0	242	372	0	0	943
Upland-moderate	25,953	0	8	430	0	125	773	54	0	1,391
Upland-low	5,683	0	0	90	0	1	150	52	0	293
Total	84,567	0	27	1,205	0	516	1,617	143	0	3,507
Aquatic breeding, foraging, and movement (miles)	2,802	0	1	27	0	11	33	4	0	76
Western pond turtle									0	0
Aquatic habitat	81,666	0	26	691	0	150	1,856	74	0	2,797
Upland nesting and overwintering habitat	16,184	0	3	294	0	115	331	31	0	774
Upland nesting and overwintering habitat-NHD	12,680	0	2	97	0	37	243	5	0	384
Total	110,530	0	31	1,082	0	303	2,430	110	0	3,956
Aquatic habitat linear (miles) - NHD	1,425	0	1	10	0	1	14	2	0	29
Amphibians										
California red-legged frog									0	0
Aquatic habitat	159	0	0	4	0	0	0	0	0	4
Upland cover and dispersal habitat	7,766	0	0	77	0	0	0	0	0	77
Total	7,925	0	0	80	0	0	0	0	0	80
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0
California tiger salamander									0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	0	89	0	30	660	0	0	778
Total	37,732	0	0	89	0	30	861	0	0	979
Invertebrates										
Valley elderberry longhorn beetle									0	0
Riparian vegetation	17,786	0	2	79	0	56	125	32	0	295
Nonriparian channels and grasslands	16,670	0	5	230	0	85	261	12	0	592
Total	34,456	0	6	309	0	141	387	44	0	887
California linderiella									0	0
Vernal pool complex	9,607	0	0	41	0	0	89	0	0	131
Degraded vernal pool complex	2,713	0	0	0	0	0	45	0	0	45
Total	12,320	0	0	41	0	0	135	0	0	176
Conservancy fairy shrimp									0	0
Vernal pool complex	9,607	0	0	41	0	0	89	0	0	131
Degraded vernal pool complex	2,713	0	0	0	0	0	45	0	0	45
Total	12,320	0	0	41	0	0	135	0	0	176
Longhorn fairy shrimp									0	0
Vernal pool complex	9,607	0	0	41	0	0	89	0	0	131
Degraded vernal pool complex	2,713	0	0	0	0	0	45	0	0	45
Total	12,320	0	0	41	0	0	135	0	0	176
Midvalley fairy shrimp									0	0
Vernal pool complex	9,607	0	0	41	0	0	89	0	0	131
Degraded vernal pool complex	2,713	0	0	0	0	0	45	0	0	45
Total	12,320	0	0	41	0	0	135	0	0	176
Vernal pool fairy shrimp									0	0
Vernal pool complex	9,607	0	0	41	0	0	89	0	0	131
Degraded vernal pool complex	2,713	0	0	0	0	0	45	0	0	45
Total	12,320	0	0	41	0	0	135	0	0	176
Vernal pool tadpole shrimp									0	0
Vernal pool complex	9,607	0	0	41	0	0	89	0	0	131
Degraded vernal pool complex	2,713	0	0	0	0	0	45	0	0	45
Total	12,320	0	0	41	0	0	135	0	0	176
Plants										
Brittlescale total	451	0	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	0	70	0	48	129	1	0	249
Carquinez goldenbush total	1,346	0	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	0	112	0	0	0	26	0	138
Delta mudwort total	6,081	0	2	97	0	10	261	11	0	382
Mason's lilaeopsis total	6,081	0	2	97	0	10	261	11	0	382

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration		Total Allowable Indirect Effects	
		O&M (Acres)	Geotechnical (acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Delta tule pea total	5,853	0	0	6	0	0	420	1	0	427
Suisun Marsh aster total	5,853	0	0	6	0	0	420	1	0	427
Side-flowering skullcap total	2,497	0	2	28	0	1	80	1	0	112
Slough thistle total	1,834	0	0	0	0	0	0	25	0	25
Soft bird's-beak total	1,228	0	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	0	66	0	0	66
Vernal Pool Plants										
Alkali milk-vetch									0	0
Vernal pool complex	9,557	0	0	33	0	0	117	0	0	150
Degraded vernal pool complex	2,576	0	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	8	0	0	0	0	0	8
Total	12,320	0	0	41	0	0	135	0	0	176
Legenere									0	0
Vernal pool complex	9,557	0	0	33	0	0	117	0	0	150
Degraded vernal pool complex	2,576	0	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	8	0	0	0	0	0	8
Total	12,320	0	0	41	0	0	135	0	0	176
Heckard's peppergrass									0	0
Vernal pool complex	9,557	0	0	33	0	0	117	0	0	150
Degraded vernal pool complex	2,576	0	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	8	0	0	0	0	0	8
Total	12,320	0	0	41	0	0	135	0	0	176
Boggs Lake hedge-hyssop									0	0
Vernal pool complex	9,557	0	0	33	0	0	117	0	0	150
Degraded vernal pool complex	2,576	0	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	8	0	0	0	0	0	8
Total	12,320	0	0	41	0	0	135	0	0	176
Dwarf downingia									0	0
Vernal pool complex	9,557	0	0	33	0	0	117	0	0	150
Degraded vernal pool complex	2,576	0	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	8	0	0	0	0	0	8
Total	12,320	0	0	41	0	0	135	0	0	176

Alternative 5

Table 12E-4~~1~~4. Direct Effects on Natural Communities–Alternative 5 with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Tidal Perennial Aquatic	86,263	35	0	0	84	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	57	0	95
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	3	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0	3
Valley/Foothill Riparian	17,966	47	0	0	17	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	433	0	105
Grassland	78,047	292	2	151	84	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,183	151	323
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	204	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	66	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	70	0	20
Managed Wetland	70,798	3	0	75	8	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,745	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,118	1,539	972	758	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	12,015	972	1,120
Cropland	459,778	2,009	1,489	947	711	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	11,460	947	1,045
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	225	57	42	77	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	944	42	77
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	34	18	0	37	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	65
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	402	727	11	317	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,512	11	317
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	40	51	0
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	862	40	46	37	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,305	46	49
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	3	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	1,969	0	3
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	135	0	0
Non-irrigated native pasture	3,465	1	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	310	0	1
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331	0	8
Beans (green)	122	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	237	0	0
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	18	15	53	45	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	573	53	94
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	28	63	0	76	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	210	0	155
Citrus and Sub-tropical	264	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	5	0	1
Vineyards	33,980	203	215	645	37	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	1,660	645	37
Native Vegetation	28,103	131	18	70	59	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	545	70	78
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	6	15
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	110	50	26	47	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	555	26	75
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	15	4	0	4	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	26	0	4
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of recreational-related facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	13	2	0	1	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	58	0	1
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	74	38	25	37	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	328	25	61
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	4	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	58	0	5
Developed	90,660	67	18	2	42	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	224	2	59

Table 12E-4~~2~~5. Direct Effects on Natural Communities–Alternative 5 with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction	Maximum Allowable Habitat Loss		
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Tidal Perennial Aquatic	86,263	35	0	0	84	8	11	0.20	0.23	1.34	0.20	0.00	0.00	0.00	0.95	0.59	12.54	0.00	0.00	0.00	16	2	5	0	0	0	0	0	0	61	0	100
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	3	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	14	0	4
Valley/Foothill Riparian	17,966	47	0	0	17	89	88	0	0	0	0	0	0	0	0	0	389	7	5	2	403	43	35	0	0	0	0	0	0	582	0	140
Grassland	78,047	292	2	151	84	388	239	0	0	1	0	0	0	0	32	3	632	39	17	6	732	51	34	11	399	0	0	50	35	1,960	151	357
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	0	0	0	0	0	0	0	0	59	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	272	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	0	0	50	0	1	0	51	0	0	0	0	0	0	0	0	78	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	6	0	51	10	1	0	68	28	16	0	0	0	0	0	0	132	0	36
Managed Wetland	70,798	3	0	75	8	24	44	56	112	1,783	1,628	1,765	69	0	232	0	1,479	161	14	2	7,301	0	0	0	0	0	0	0	0	7,328	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,118	1,539	972	758	629	363	0	0	0	0	0	0	0	823	207	7,104	2,365	829	95	11,423	2,087	1,194	960	3,593	2,000	1,950	0	0	26,300	972	2,315
Cropland	459,778	2,009	1,489	947	711	568	334	0	0	0	0	0	0	0	788	190	6,575	2,335	766	80	10,734	1,947	1,108	862	3,062	2,000	1,950	0	0	24,621	947	2,153
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	9	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	225	57	42	77	31	0	0	0	0	0	0	0	0	31	8	195	414	137	0	785	132	72	0	0	0	0	0	0	1,229	42	148
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	499	110	1	1	640	0	0	0	0	0	0	0	0	640	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	34	18	0	37	5	27	0	0	0	0	0	0	0	0	19	177	78	0	0	274	123	69	37	147	0	0	0	0	638	0	133
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	402	727	11	317	0	0	0	0	0	0	0	0	0	0	11	124	310	194	9	647	251	145	141	550	216	443	0	0	3,378	11	462
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	39	0	0	0	0	0	0	67	0	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	1	14	16	0	31	5	1	0	1	0	0	0	0	49	51	2
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	862	40	46	37	0	12	0	0	0	0	0	0	0	25	123	1,217	465	81	1	1,913	604	333	300	866	347	208	0	0	5,140	46	382
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	3	67	0	0	0	0	0	0	0	0	399	0	2,205	46	92	1	2,744	43	21	18	62	0	0	0	0	2,940	0	24
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	226	0	450	41	25	0	742	14	6	0	0	0	0	0	0	757	0	6
Non-irrigated native pasture	3,465	1	0	0	0	301	1	0	0	0	0	0	0	0	3	0	6	0	0	0	9	5	2	0	0	0	0	0	0	316	0	3
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4	0	0	0	0	0	0	18	0	4
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	14	5	21	0	0	0	0	382	0	22
Beans (green)	122	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	228	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	7	8	33	0	0	0	0	54	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	223	13	0	0	0	0	237	110	66	71	280	0	0	0	0	698	0	66
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	18	15	53	45	68	49	0	0	0	0	0	0	0	0	0	132	317	22	0	471	288	171	181	709	0	0	0	0	1,751	53	265
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	2	9	0	0	0	0	16	0	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	7	3	10	0	0	0	0	24	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	6	25	0	0	0	0	38	0	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	28	63	0	76	0	80	0	0	0	0	0	0	0	5	0	66	30	4	0	106	14	10	0	0	22	46	0	0	279	0	165
Citrus and Sub-tropical	264	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0	9	0	1
Vineyards	33,980	203	215	645	37	0	0	0	0	0	0	0	0	0	4	0	568	473	165	0	1,211	115	67	0	0	72	235	0	0	2,050	645	104
Native Vegetation	28,103	131	18	70	59	18	19	0	0	0	0	0	0	0	93	1	681	17	26	29	846	30	23	0	0	0	0	0	0	1,043	70	101
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	0	0	27	0	0	1	28	77	45	40	156	0	0	0	0	382	6	60
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	110	50	26	47	62	29	0	0	0	0	0	0	0	35	17	529	141	62	15	800	140	86	98	531	0	0	0	0	1,790	26	161
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	15	4	0	4	0	0	0	0	0	0	0	0	0	1	0	17	3	1	0	22	6	5	0	0	0	0	0	0	48	0	9
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0	0	0	0	6	0	3

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction	Maximum Allowable Habitat Loss		
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	13	2	0	1	0	0	0	0	0	0	0	0	0	1	0	47	4	2	0	54	5	3	0	0	0	0	0	0	74	0	5
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	74	38	25	37	17	25	0	0	0	0	0	0	0	32	17	324	130	58	14	575	114	66	0	531	0	0	0	0	1,350	25	127
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	103	2	0	0	106	0	0	0	0	0	0	0	0	141	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	4	10	0	0	0	0	0	0	0	0	2	0	34	2	2	0	39	9	9	98	0	0	0	0	0	167	0	13
Developed	90,660	67	18	2	42	15	16	3	3	29	5	3	0	0	13	2	139	20	4	0	222	125	68	0	0	0	0	0	0	446	2	126

Table 12E-~~43~~46. Direct Effects on Wildlife and Plants–Alternative 5 with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	3	27
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157	3	27
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	79	0	1
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	3	0	0	1	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,066	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	35	0	0	84	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	72	0	95
Total	86,263	35	0	0	84	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	72	0	95
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	319	0	89
Foraging	164,676	1,138	406	134	445	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,319	134	445
Total	188,594	1,180	686	134	536	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,641	134	536
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	27	0	0	11	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	409	0	99
Total	14,850	27	0	0	11	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	409	0	99
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,004	1,193	474	647	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	12,113	474	1,151
Nesting habitat	9,796	12	0	0	11	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	264	0	65
Total	487,675	2,015	1,193	474	658	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	12,377	474	1,217
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	625	57	162	120	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,339	162	204
Breeding habitat-foraging	60,828	199	0	151	35	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	916	151	190
Breeding habitat-nesting	1,935	9	0	0	2	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	78
Nonbreeding habitat-foraging ag	196,713	1,023	771	11	356	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	5,542	11	410
Nonbreeding habitat-roosting	28,067	23	0	0	5	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	593	0	5
Nonbreeding habitat-foraging	34,313	93	2	0	49	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	554	0	49
Total	424,040	1,971	831	325	568	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	9,966	325	935
Western burrowing owl																															0	0	0
High-value habitat	152,014	421	10	220	125	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	4,931	220	370
Low-value habitat	254,352	1,342	1,110	214	433	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	5,979	214	577
Total	406,366	1,763	1,120	434	558	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	10,910	434	947
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	29	0	5
Migratory habitat	10,425	20	0	0	10	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	298	0	92
Total	12,395	20	0	0	10	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	326	0	97
White-tailed kite																															0	0	0
Breeding habitat	14,069	23	0	0	12	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	334	0	100
Foraging habitat	507,922	2,009	1,196	474	649	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	11,940	474	1,166
Total	521,991	2,031	1,196	474	661	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	12,274	474	1,265

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	17	0	0	3	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	114	0	61
Secondary nesting and migratory habitat	5,528	10	0	0	8	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	219	0	8
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	27	0	0	11	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	409	0	99
Reptiles																																	
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	23	0	0	11	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	33	0	14
Aquatic - nontidal	19,184	20	5	0	15	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	193	0	27
Upland-high	21,649	47	2	14	69	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	591	14	227
Upland-moderate	25,953	271	8	6	65	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	1,074	6	127
Upland-low	5,683	24	0	0	3	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	154	0	3
Total	84,567	384	15	20	164	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,046	20	398
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	6	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	66	1	16
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	76	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	132	0	99
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	354	3	86
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	19	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	220	11	68
Total	110,530	209	1	14	112	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	706	14	253
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	3	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	36	1	6
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	6	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	6
Total	37,732	5	0	151	6	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	6
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	47	0	0	17	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	428	0	93
Nonriparian channels and grasslands	16,670	172	0	0	69	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	314	0	163
Total	34,456	218	0	0	86	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	741	0	257
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	286	32	2
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Delta mudwort total	6,081	18	0	0	6	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	26	0	8
Mason's lilaeopsis total	6,081	18	0	0	6	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	26	0	8
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	1	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	4	0	2
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Table 12E-~~44~~47. Direct Effects on Wildlife and Plants – Alternative 5 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	35	0	0	0	0	0	0	49	0	35
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	20	0	0	0	0	0	0	176	3	46
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	54	0	0	0	0	0	0	226	3	82
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	33	0	0	0	0	0	0	42	0	33
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	33	0	0	0	0	0	0	42	0	33
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	0	66	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	15	36	670	825	1,067	6	0	0	0	0	0	0	0	1,898	721	0	0	0	0	0	0	0	0	2,619	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	5	16	226	87	52	1	0	0	0	0	0	0	0	140	248	0	0	0	0	0	0	0	0	387	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	5	9	144	174	61	1	0	0	0	0	0	0	0	236	158	0	0	0	0	0	0	0	0	395	0	0
Total	35,588	0	0	0	0	0	0	26	69	1,106	1,086	1,181	8	0	0	0	0	0	0	0	2,275	1,201	0	0	0	0	0	0	0	0	3,476	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	59	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	58	22	1	0	0	0	0	0	0	0	81	24	0	0	0	0	0	0	0	0	105	0	0
Total	7,515	0	0	0	0	0	0	7	17	59	58	22	1	0	0	0	0	0	0	0	140	24	0	0	0	0	0	0	0	0	164	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	71	0	0	0	0	0	0	0	0	1	0	2	71	0	0	0	0	0	0	0	0	81	0	1
Secondary habitat	17,915	0	0	0	0	0	0	29	63	0	607	757	4	0	0	0	1	0	0	0	1,367	93	0	0	0	0	0	0	0	0	1,460	0	0
Total	25,382	3	0	0	1	5	0	29	63	71	607	757	4	0	0	0	1	0	1	0	1,369	164	0	0	0	0	0	0	0	0	1,541	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	3	6	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	9	0	0
Total	6,716	0	0	0	0	0	0	3	6	26	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	35	0	0	84	8	11	0	0	1	0	0	0	0	1	1	13	13	4	0	33	0	2	5	0	0	0	0	0	0	78	0	100
Total	86,263	35	0	0	84	8	11	0	0	1	0	0	0	0	1	1	13	13	4	0	33	0	2	5	0	0	0	0	0	0	78	0	100
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	360	0	89
Foraging	164,676	1,138	406	134	445	0	0	0	0	0	0	0	0	0	11	0	1,407	827	381	29	2,655	0	0	0	0	0	0	300	1,350	4	0	5,853	134	445
Total	188,594	1,180	686	134	536	0	0	0	0	0	0	0	0	0	11	0	1,448	827	381	29	2,696	0	0	0	0	0	0	300	1,350	4	0	6,216	134	536
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	27	0	0	11	83	88	1	1	6	1	1	0	0	0	0	381	6	4	2	403	0	28	21	0	0	0	0	0	0	541	0	120
Total	14,850	27	0	0	11	83	88	1	1	6	1	1	0	0	0	0	381	6	4	2	403	0	28	21	0	0	0	0	0	0	541	0	120
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	32	70	0	623	851	5	0	0	0	0	0	0	0	1,479	102	0	0	0	0	0	0	0	0	1,581	0	0
Total	27,707	0	0	0	0	0	0	32	70	55	624	851	5	0	0	0	0	0	0	0	1,479	157	0	0	0	0	0	0	0	0	1,637	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,004	1,193	474	647	996	504	24	45	324	216	97	0	0	1,073	192	7,437	2,007	604	37	12,057	0	1,820	1,036	971	3,991	1,849	1,440	50	35	26,405	474	2,187
Nesting habitat	9,796	12	0	0	11	79	54	0	0	4	2	0	0	0	0	0	217	2	2	1	228	0	38	31	0	0	0	0	0	0	356	0	97
Total	487,675	2,015	1,193	474	658	1,075	558	24	46	328	218	97	0	0	1,073	193	7,654	2,009	605	38	12,285	0	1,857	1,067	971	3,991	1,849	1,440	50	35	26,761	474	2,284
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	625	57	162	120	477	84	0	0	0	0	0	0	0	554	143	2,341	421	7	1	1,126	2,341	503	275	7	0	1,521	568	0	0	7,224	162	479
Breeding habitat-foraging	60,828	199	0	151	35	105	155	11	20	294	281	165	1	0	7	0	98	2	0	0	468	413	47	30	11	0	0	0	44	35	1,321	151	219
Breeding habitat-nesting	1,935	9	0	0	2	13	75	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4	2	0	0	0	0	0	0	28	0	80
Nonbreeding habitat-foraging ag	196,713	1,023	771	11	356	0	54	0	0	0	0	0	0	0	223	27	2,870	986	548	29	1,813	2,870	652	367	953	3,991	210	945	0	0	13,227	11	777
Nonbreeding habitat-roosting	28,067	23	0	0	5	8	0	23	43	0	315	282	3	0	91	0	0	4	3	1	765	0	1	1	0	0	0	0	0	0	797	0	6
Nonbreeding habitat-foraging	34,313	93	2	0	49	0	0	0	0	0	0	0	0	0	42	3	547	37	17	6	105	547	3	3	0	0	0	0	7	0	757	0	52
Total	424,040	1,971	831	325	568	603	367	34	63	294	596	448	4	0	917	174	5,857	1,451	574	37	4,277	6,172	1,211	678	971	3,991	1,731	1,513	50	35	23,355	325	1,613
Western burrowing owl																															0	0	0
High-value habitat	152,014	421	10	220	125	882	245	15	24	212	219	105	1	0	886	4	4,039	146	157	34	5,840	0	142	83	11	0	362	159	50	35	7,912	220	453
Low-value habitat	254,352	1,342	1,110	214	433	98	144	0	15	25	6	2	0	0	192	157	2,994	1,323	298	13	5,025	0	1,452	827	960	3,991	1,314	952	0	0	16,243	214	1,404
Total	406,366	1,763	1,120	434	558	979	389	15	38	237	225	107	1	0	1,077	160	7,033	1,469	455	46	10,865	0	1,594	910	971	3,991	1,675	1,111	50	35	24,155	434	1,856
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	52	0	1	0	53	0	6	5	0	0	0	0	0	0	85	0	10
Migratory habitat	10,425	20	0	0	10	57	83	0	0	0	0	0	0	0	0	0	248	2	1	1	254	0	16	11	0	0	0	0	0	0	346	0	104
Total	12,395	20	0	0	10	83	88	0	0	0	0	0	0	0	0	0	300	3	2	2	307	0	21	17	0	0	0	0	0	0	431	0	114
White-tailed kite																															0	0	0
Breeding habitat	14,069	23	0	0	12	82	88	0	0	4	2	0	0	0	0	0	284	3	2	2	298	0	42	33	0	0	0	0	0	0	444	0	133
Foraging habitat	507,922	2,009	1,196	474	649	1,008	516	0	79	1,054	1,124	1,360	23	0	0	193	7,288	1,999	605	38	13,764	0	1,706	968	971	3,991	1,849	1,440	50	35	28,018	474	2,134
Total	521,991	2,031	1,196	474	661	1,090	604	0	79	1,059	1,127	1,360	23	0	0	193	7,572	2,001	607	40	14,061	0	1,748	1,001	971	3,991	1,849	1,440	50	35	28,462	474	2,267
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	17	0	0	3	9	58	0	0	0	0	0	0	0	0	0	105	1	2	1	109	0	23	15	0	0	0	0	0	0	159	0	77
Secondary nesting and migratory habitat	5,528	10	0	0	8	3	0	0	0	0	0	0	0	0	0	0	276	4	2	1	283	0	5	6	0	0	0	0	0	0	300	0	14
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	1	6	1	1	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	82	0	29
Total	14,547	27	0	0	11	83	88	1	1	6	1	1	0	0	0	0	381	6	4	2	403	0	28	21	0	0	0	0	0	0	541	0	120

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	23	0	0	11	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	35	0	16
Aquatic - nontidal	19,184	20	5	0	15	59	13	0	0	0	0	0	0	0	8	0	134	12	3	0	158	0	34	21	0	0	0	0	0	0	275	0	48
Upland-high	21,649	47	2	14	69	178	158	0	0	0	0	0	0	0	41	0	420	33	32	17	544	0	0	0	0	0	0	0	0	0	770	14	227
Upland-moderate	25,953	271	8	6	65	60	61	0	0	0	0	0	0	0	66	1	722	69	12	1	871	0	27	24	0	0	0	0	0	35	1,272	6	151
Upland-low	5,683	24	0	0	3	1	0	0	0	0	0	0	0	0	6	0	122	1	1	1	131	0	20	18	0	0	0	0	0	0	175	0	21
Total	84,567	384	15	20	164	306	234	0	0	0	0	0	0	0	122	2	1,398	115	48	20	1,705	0	82	65	0	0	0	0	0	35	2,528	20	463
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	6	5	9	0	0	0	0	0	0	0	4	1	49	11	7	2	74	0	2	1	0	0	0	0	0	0	98	1	17
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	76	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	164	0	120
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	2	4	108	98	35	1	0	2	0	44	2	0	0	295	0	12	15	10	0	0	0	0	0	531	3	102
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	19	21	49	4	7	11	15	7	0	0	7	1	164	10	6	2	235	0	4	2	0	0	0	0	0	0	315	11	70
Total	110,530	209	1	14	112	167	141	52	11	120	113	41	1	0	9	1	208	12	6	2	576	0	48	39	10	0	0	0	0	0	1,009	14	292
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	3	1	3	0	0	1	1	1	0	0	2	1	26	8	4	1	46	0	2	1	0	0	0	0	0	0	60	1	7
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	29	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	30	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	6	42	0	0	0	0	0	0	0	0	140	0	135	0	0	0	275	0	0	0	0	0	0	0	40	35	397	151	6
Total	37,732	5	0	151	6	42	0	0	0	0	0	0	0	0	140	0	135	0	0	0	275	0	0	0	0	0	0	0	40	35	397	151	6
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	47	0	0	17	83	76	0	0	0	0	0	0	0	0	0	389	7	5	2	403	0	43	35	0	0	0	0	0	0	576	0	128
Nonriparian channels and grasslands	16,670	172	0	0	69	41	94	1	1	14	9	2	0	0	10	0	107	15	6	1	164	0	9	14	0	0	0	0	0	0	386	0	178
Total	34,456	218	0	0	86	125	170	1	1	14	9	2	0	0	10	0	497	22	10	2	568	0	52	49	0	0	0	0	0	0	963	0	306
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	271	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	271	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	271	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	271	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	271	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	271	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	4	0	83	1	0	0	90	0	0	0	0	0	0	0	0	0	90	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	0	0	0	0	0	123	0	255	1	0	0	380	0	1	1	0	0	0	0	0	0	471	32	3
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	28	0	8
Delta mudwort total	6,081	18	0	0	6	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	6	0	1	2	0	0	0	0	0	0	27	0	10
Mason's lilaeopsis total	6,081	18	0	0	6	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	6	0	1	2	0	0	0	0	0	0	27	0	10
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	1	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	5	0	2
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	268	0	0	0	0	0	0	0	0	0	270	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	268	0	0	0	0	0	0	0	0	0	270	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	268	0	0	0	0	0	0	0	0	0	270	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	268	0	0	0	0	0	0	0	0	0	270	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	268	0	0	0	0	0	0	0	0	0	270	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	0	0	0	0	0	134	0	134	0	0	0	269	0	0	0	0	0	0	0	0	0	272	0	0

Table 12E-~~45~~48. Indirect Effects–Alternative 5 [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	25	0	0	110	526	0	661
Grassland habitat	3,103	0	250	0	0	70	307	0	627
Total	6,011	0	275	0	0	180	832	0	1,287
Riparian woodrat								0	0
Habitat	2,166	0	3	0	0	60	419	0	482
Total	2,166	0	3	0	0	60	419	0	482
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	239	0	0	0	0	0	239
Total	5,327	0	239	0	0	0	0	0	239
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	113	0	5	364	0	0	483
Secondary habitat	17,915	0	2	0	0	428	2	0	433
Total	25,382	0	116	0	5	793	2	0	915
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	1,157	0	44	2,785	850	0	4,835
Total	86,263	0	1,157	0	44	2,785	850	0	4,835
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	219	0	0	0	0	0	219
Roosting and foraging - Temporary	16,579	0	1,427	0	0	174	0	0	1,600
Foraging	164,676	5	7,609	0	0	1,825	0	5	9,434
Total	188,594	5	9,255	0	0	1,999	0	5	11,254
Least Bell's vireo								0	0
Migratory and breeding	14,850	0	154	0	244	619	406	0	1,424
Total	14,850	0	154	0	244	619	406	0	1,424
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	5	10,484	0	4,284	9,107	4,499	5	28,375
Nesting habitat	9,796	1	169	0	367	460	500	1	1,496
Total	487,675	7	10,654	0	4,650	9,567	4,999	7	29,870
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	2	646	0	1,612	1,152	852	2	4,263
Breeding habitat-foraging	60,828	0	375	0	931	2,389	532	0	4,228
Breeding habitat-nesting	1,935	0	39	0	89	43	114	0	285
Nonbreeding habitat-foraging ag	196,713	0	7,665	0	38	2,856	1,604	0	12,163
Nonbreeding habitat-roosting	28,067	0	350	0	49	1,214	25	0	1,639
Nonbreeding habitat-foraging	34,313	0	784	0	0	1,324	33	0	2,141
Total	424,040	2	9,859	0	2,721	8,978	3,161	2	24,719
Western burrowing owl								0	0
High-value habitat	152,014	0	1,235	0	1,202	3,038	541	0	6,016
Low-value habitat	254,352	0	4,297	0	512	1,632	1,977	0	8,418
Total	406,366	0	5,532	0	1,714	4,671	2,518	0	14,435
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	8	0	24	98	66	0	196
Migratory habitat	10,425	0	126	0	220	398	318	0	1,062
Total	12,395	0	134	0	244	496	384	0	1,259
White-tailed kite								0	0
Breeding habitat	14,069	1	289	0	388	742	586	1	2,006
Foraging habitat	507,922	5	10,556	0	4,331	9,708	4,098	5	28,693
Total	521,991	7	10,845	0	4,720	10,450	4,684	7	30,699
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	63	0	80	388	272	0	803
Secondary nesting and migratory habitat	5,528	0	91	0	5	172	135	0	402
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	154	0	244	634	406	0	1,439
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	287	0	19	417	161	0	885
Aquatic - nontidal	19,184	0	156	0	206	126	44	0	533
Upland-high	21,649	0	415	0	386	496	0	0	1,297
Upland-moderate	25,953	0	515	0	231	1,120	370	0	2,237
Upland-low	5,683	0	82	0	3	270	429	0	784
Total	84,567	0	1,455	0	845	2,430	1,005	0	5,735
Aquatic breeding, foraging, and movement (miles)	2,802	0	36	0	11	33	22	0	102
Western pond turtle								0	0
Aquatic habitat	81,666	0	1,102	0	199	3,511	884	0	5,696
Upland nesting and overwintering habitat	16,184	0	289	0	238	552	308	0	1,388
Upland nesting and overwintering habitat-NHD	12,680	0	148	0	47	376	33	0	605
Total	110,530	0	1,539	0	484	4,440	1,225	0	7,689
Aquatic habitat linear (miles) - NHD	1,425	0	21	0	2	20	4	0	47
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	147	0	0	0	0	0	147
Total	7,925	0	147	0	0	0	0	0	147

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	206	0	30	659	0	0	895
Total	37,732	0	206	0	30	861	0	0	1,096
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	93	0	56	125	200	0	475
Nonriparian channels and grasslands	16,670	0	229	0	85	261	210	0	784
Total	34,456	0	322	0	141	387	410	0	1,259
California linderiella								0	0
Vernal pool complex	9,607	0	9	0	0	201	0	0	210
Degraded vernal pool complex	2,713	0	40	0	0	85	0	0	125
Total	12,320	0	48	0	0	286	0	0	334
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	9	0	0	201	0	0	210
Degraded vernal pool complex	2,713	0	40	0	0	85	0	0	125
Total	12,320	0	48	0	0	286	0	0	334
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	9	0	0	201	0	0	210
Degraded vernal pool complex	2,713	0	40	0	0	85	0	0	125
Total	12,320	0	48	0	0	286	0	0	334
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	9	0	0	201	0	0	210
Degraded vernal pool complex	2,713	0	40	0	0	85	0	0	125
Total	12,320	0	48	0	0	286	0	0	334
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	9	0	0	201	0	0	210
Degraded vernal pool complex	2,713	0	40	0	0	85	0	0	125
Total	12,320	0	48	0	0	286	0	0	334
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	9	0	0	201	0	0	210
Degraded vernal pool complex	2,713	0	40	0	0	85	0	0	125
Total	12,320	0	48	0	0	286	0	0	334
Plants									
Brittlescale total	451	0	0	0	0	6	0	0	6
Heartscale total	6,528	0	0	0	1	385	0	0	386
San Joaquin spearscale total	14,933	0	35	0	98	284	1	0	418
Carquinez goldenbush total	1,346	0	0	0	0	74	0	0	74
Delta button celery total	3,361	0	25	0	0	0	634	0	659
Delta mudwort total	6,081	0	126	0	14	373	149	0	662
Mason's lilaeopsis total	6,081	0	126	0	14	373	149	0	662
Delta tule pea total	5,853	0	12	0	0	573	2	0	587
Suisun Marsh aster total	5,853	0	12	0	0	573	2	0	587
Side-flowering skullcap total	2,497	0	35	0	1	155	13	0	204
Slough thistle total	1,834	0	0	0	0	0	634	0	634
Soft bird's-beak total	1,228	0	0	0	0	95	0	0	95
Suisun thistle total	1,281	0	0	0	0	104	0	0	104
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	9	0	0	251	0	0	260
Degraded vernal pool complex	2,576	0	40	0	0	35	0	0	75
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	48	0	0	286	0	0	334
Legenere								0	0
Vernal pool complex	9,557	0	9	0	0	251	0	0	260
Degraded vernal pool complex	2,576	0	40	0	0	35	0	0	75
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	48	0	0	286	0	0	334
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	9	0	0	251	0	0	260
Degraded vernal pool complex	2,576	0	40	0	0	35	0	0	75
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	48	0	0	286	0	0	334
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	9	0	0	251	0	0	260
Degraded vernal pool complex	2,576	0	40	0	0	35	0	0	75
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	48	0	0	286	0	0	334
Dwarf downingia								0	0
Vernal pool complex	9,557	0	9	0	0	251	0	0	260
Degraded vernal pool complex	2,576	0	40	0	0	35	0	0	75
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	48	0	0	286	0	0	334

Alternative 7

Table 12E-~~46~~49. Direct Effects on Natural Communities–Alternative 7 with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	63	0	119
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	5	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0	5
Valley/Foothill Riparian	17,966	48	0	0	25	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	435	0	112
Grassland	78,047	303	2	151	104	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,194	151	343
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	204	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	66	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	70	0	20
Managed Wetland	70,798	3	0	75	8	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,745	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,195	1,546	977	1,000	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	12,098	977	1,363
Cropland	459,778	2,090	1,495	950	952	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	11,547	950	1,286
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	225	61	42	100	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	948	42	100
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	16	18	0	36	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	63
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	401	727	11	319	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,511	11	319
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	40	51	0
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	874	40	46	83	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,316	46	95
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	29	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	1,969	0	29
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	135	0	0
Non-irrigated native pasture	3,465	1	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	310	0	1
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331	0	8
Beans (green)	122	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	237	0	0
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	20	16	54	55	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	575	54	104
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	87	63	0	169	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	270	0	249
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0
Vineyards	33,980	223	215	645	78	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	1,681	645	78
Native Vegetation	28,103	134	18	73	52	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	548	73	72
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	6	15
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	105	51	27	49	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	551	27	78
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	11	4	0	6	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	21	0	6
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Tunnel/Pipeline/Conveyance Facilities Construction				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation	CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of Recreational-Related Facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	12	3	0	3	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	58	0	3
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	75	39	26	38	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	330	26	62
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	3	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	58	0	3
Developed	90,660	71	18	2	55	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	228	2	71

Table 12E-~~47~~50. Direct Effects on Natural Communities–Alternative 7 with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Maximum Allowable Habitat Loss Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	4	9	0	0	0	0	0	0	0	72	0	128
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	15	0	7
Valley/Foothill Riparian	17,966	48	0	0	25	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	85	70	0	0	0	0	0	0	0	775	0	182
Grassland	78,047	303	2	151	104	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	102	69	11	399	0	0	50	35	2,413	151	411
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	1	0	0	0	0	0	0	72	0	1
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	375	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	126	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	57	31	0	0	0	0	0	0	282	0	51
Managed Wetland	70,798	3	0	75	8	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,773	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,195	1,546	977	1,000	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	4,174	2,389	960	3,593	2,000	1,950	0	0	56,612	977	3,752
Cropland	459,778	2,090	1,495	950	952	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	3,894	2,217	862	3,062	2,000	1,950	0	0	52,735	950	3,502
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	9	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	225	61	42	100	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	263	143	0	0	0	0	0	0	3,397	42	243
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	16	18	0	36	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	246	137	37	147	0	0	0	0	1,771	0	200
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	401	727	11	319	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	502	290	141	550	216	443	0	0	5,618	11	609
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	135	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	134	79	0	0	0	0	0	0	2,367	0	79
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	10	3	0	1	0	0	0	0	116	51	3
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	874	40	46	83	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	1,209	665	300	866	347	208	0	0	14,607	46	760
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	29	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	86	42	18	62	0	0	0	0	3,564	0	72
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	27	13	0	0	0	0	0	0	1,564	0	13
Non-irrigated native pasture	3,465	1	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	10	4	0	0	0	0	0	0	325	0	5
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	17	7	0	0	0	0	0	0	43	0	8
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	48	28	5	21	0	0	0	0	1,367	0	37
Beans (green)	122	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	227	0	9
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	25	15	8	33	0	0	0	0	113	0	15
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	5	0	0	0	0	0	0	7	0	5
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	220	131	71	280	0	0	0	0	1,030	0	131
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	6	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	20	16	54	55	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	575	341	181	709	0	0	0	0	5,266	54	445
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	8	3	2	9	0	0	0	0	263	0	4
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	22	14	3	10	0	0	0	0	267	0	14
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	12	6	6	25	0	0	0	0	134	0	6
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	87	63	0	169	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	29	19	0	0	22	46	0	0	1,022	0	268
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	83	0	0
Vineyards	33,980	223	215	645	78	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	230	134	0	0	72	235	0	0	3,062	645	212
Native Vegetation	28,103	134	18	73	52	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	61	46	0	0	0	0	0	0	2,385	73	118
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	153	90	40	156	0	0	0	0	497	6	105
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non Cropland	27,328	105	51	27	49	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	279	172	98	531	0	0	0	0	3,877	27	250
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	11	4	0	6	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	12	10	0	0	0	0	0	0	118	0	15
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	12	7	0	0	0	0	0	0	18	0	7

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	12	3	0	3	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	9	7	0	0	0	0	0	0	117	0	9
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	75	39	26	38	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	229	132	0	531	0	0	0	0	3,232	26	194
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	3	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	17	17	98	0	0	0	0	0	242	0	20
Developed	90,660	71	18	2	55	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	249	136	0	0	0	0	0	0	1,017	2	207

Table 12E-~~48~~51. Direct Effects on Wildlife and Plants–Alternative 7 with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	3	27
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157	3	27
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	79	0	1
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	3	0	0	1	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,066	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	78	0	119
Total	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	78	0	119
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	319	0	89
Foraging	164,676	1,154	411	138	587	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,340	138	587
Total	188,594	1,196	691	138	677	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,662	138	677
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	28	0	0	16	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	104
Total	14,850	28	0	0	16	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	104
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,012	1,199	478	778	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	12,127	478	1,282
Nesting habitat	9,796	13	0	0	13	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	265	0	68
Total	487,675	2,025	1,199	478	792	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	12,392	478	1,350
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	621	61	165	109	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,340	165	192
Breeding habitat-foraging	60,828	205	0	151	31	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	922	151	185
Breeding habitat-nesting	1,935	8	0	0	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	78
Nonbreeding habitat-foraging ag	196,713	1,034	771	11	465	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	5,552	11	518
Nonbreeding habitat-roosting	28,067	23	0	0	8	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	593	0	8
Nonbreeding habitat-foraging	34,313	98	2	0	73	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	560	0	73
Total	424,040	1,990	835	328	688	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	9,988	328	1,055
Western burrowing owl																															0	0	0
High-value habitat	152,014	434	10	223	164	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	4,944	223	409
Low-value habitat	254,352	1,337	1,111	214	499	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	5,975	214	643
Total	406,366	1,771	1,121	438	663	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	10,919	438	1,052
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	29	0	5
Migratory habitat	10,425	20	0	0	14	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	298	0	97
Total	12,395	20	0	0	14	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	327	0	101
White-tailed kite																															0	0	0
Breeding habitat	14,069	23	0	0	17	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	334	0	105
Foraging habitat	507,922	2,014	1,201	478	780	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	11,951	478	1,297
Total	521,991	2,037	1,201	478	798	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	12,285	478	1,402

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	17	0	0	5	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	114	0	63
Secondary nesting and migratory habitat	5,528	10	0	0	12	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	220	0	12
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	28	0	0	16	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	104
Reptiles																																	
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	24	0	0	18	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	35	0	20
Aquatic - nontidal	19,184	20	5	0	13	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	193	0	26
Upland-high	21,649	58	2	15	65	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	603	15	223
Upland-moderate	25,953	276	8	6	72	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	1,079	6	134
Upland-low	5,683	23	0	0	4	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	154	0	4
Total	84,567	401	15	21	172	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,063	21	406
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	7	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	66	1	16
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	78	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	132	0	101
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	354	3	87
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	25	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	220	11	75
Total	110,530	209	1	14	121	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	706	14	262
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	3	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	36	1	6
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	7	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	7
Total	37,732	5	0	151	7	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	7
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	48	0	0	25	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	429	0	101
Nonriparian channels and grasslands	16,670	183	0	0	69	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	325	0	163
Total	34,456	231	0	0	93	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	754	0	264
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	286	32	2
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Delta mudwort total	6,081	20	0	0	10	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	28	0	12
Mason's lilaeopsis total	6,081	20	0	0	10	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	28	0	12
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	6	0	3
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Table 12E-~~49~~52. Direct Effects on Wildlife and Plants – Alternative 7 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	85	69	0	0	0	0	0	0	111	0	70
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	52	39	0	0	0	0	0	0	220	3	66
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	137	109	0	0	0	0	0	0	331	3	136
Riparian woodrat																													0		0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	83	65	0	0	0	0	0	0	93	0	65
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	83	65	0	0	0	0	0	0	93	0	65
Salt marsh harvest mouse																													0		0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																													0		0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151	16
Suisun shrew																													0		0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																													0				
California black rail																													0		0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	87	0	1
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0	0
Total	25,382	3	0	0	1	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,130	0	1
California clapper rail																													0		0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																													0		0	0	0
Nesting and Migratory Habitat	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	4	9	0	0	0	0	0	0	89	0	128
Total	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	4	9	0	0	0	0	0	0	89	0	128
Greater sandhill crane																													0		0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	360	0	89
Foraging	164,676	1,154	411	138	587	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	5,932	138	587
Total	188,594	1,196	691	138	677	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	6,295	138	677
Least Bell's vireo																													0		0	0	0
Migratory and breeding	14,850	28	0	0	16	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	56	42	0	0	0	0	0	0	712	0	146
Total	14,850	28	0	0	16	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	56	42	0	0	0	0	0	0	712	0	146
Suisun song sparrow																													0		0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																													0		0	0	0
Foraging habitat	477,879	2,012	1,199	478	778	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	3,640	2,072	971	3,991	1,849	1,440	50	35	53,541	478	3,354
Nesting habitat	9,796	13	0	0	13	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	75	63	0	0	0	0	0	0	462	0	130
Total	487,675	2,025	1,199	478	792	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	3,715	2,134	971	3,991	1,849	1,440	50	35	54,003	478	3,484
Tricolored blackbird																													0		0	0	0
Breeding habitat-ag foraging	102,184	621	61	165	109	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	1,006	550	7	0	1,521	568	0	0	10,711	165	742
Breeding habitat-foraging	60,828	205	0	151	31	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	95	59	11	0	0	0	44	35	2,243	151	245
Breeding habitat-nesting	1,935	8	0	0	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	9	4	0	0	0	0	0	0	86	0	82
Nonbreeding habitat-foraging ag	196,713	1,034	771	11	465	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	1,304	733	953	3,991	210	945	0	0	26,412	11	1,252
Nonbreeding habitat-roosting	28,067	23	0	0	8	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	2	3	0	0	0	0	0	0	1,667	0	11
Nonbreeding habitat-foraging	34,313	98	2	0	73	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	7	6	0	0	0	0	7	0	1,445	0	79
Total	424,040	1,990	835	328	688	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	2,421	1,355	971	3,991	1,731	1,513	50	35	42,564	328	2,411
Western burrowing owl																													0		0	0	0
High-value habitat	152,014	434	10	223	164	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	283	166	11	0	362	159	50	35	12,155	223	575
Low-value habitat	254,352	1,337	1,111	214	499	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	2,904	1,653	960	3,991	1,314	952	0	0	32,406	214	2,297
Total	406,366	1,771	1,121	438	663	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	3,188	1,819	971	3,991	1,675	1,111	50	35	44,561	438	2,871
Western yellow-billed cuckoo																													0		0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	11	11	0	0	0	0	0	0	147	0	15
Migratory habitat	10,425	20	0	0	14	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	32	22	0	0	0	0	0	0	418	0	119
Total	12,395	20	0	0	14	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	43	33	0	0	0	0	0	0	565	0	134
White-tailed kite																													0		0	0	0
Breeding habitat	14,069	23	0	0	17	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	84	67	0	0	0	0	0	0	572	0	172
Foraging habitat	507,922	2,014	1,201	478	780	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	3,413	1,936	971	3,991	1,849	1,440	50	35	57,597	478	3,233
Total	521,991	2,037	1,201	478	798	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	3,497	2,003	971	3,991	1,849	1,440	50	35	58,169	478	3,405

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Yellow-breasted chat																														0	0	0	0
Primary nesting and migratory habitat	8,178	17	0	0	5	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	47	31	0	0	0	0	0	0	256	0	93
Secondary nesting and migratory habitat	5,528	10	0	0	12	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	9	11	0	0	0	0	0	0	371	0	23
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	28	0	0	16	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	56	42	0	0	0	0	0	0	712	0	146
Reptiles																														0			
Giant garter snake																														0	0	0	0
Aquatic - tidal	12,097	24	0	0	18	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	3	5	0	0	0	0	0	0	37	0	25
Aquatic - nontidal	19,184	20	5	0	13	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	68	42	0	0	0	0	0	0	545	0	67
Upland-high	21,649	58	2	15	65	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	832	15	223
Upland-moderate	25,953	276	8	6	72	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	54	49	0	0	0	0	0	35	1,808	6	182
Upland-low	5,683	23	0	0	4	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	39	35	0	0	0	0	0	0	217	0	40
Total	84,567	401	15	21	172	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	164	131	0	0	0	0	0	35	3,439	21	537
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	7	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	4	2	0	0	0	0	0	0	164	1	19
Western pond turtle																														0	0	0	0
Aquatic habitat	81,666	49	0	0	78	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	63	42	0	0	0	0	0	0	195	0	143
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	24	31	10	0	0	0	0	0	720	3	118
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	25	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	8	4	0	0	0	0	0	0	484	11	79
Total	110,530	209	1	14	121	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	95	77	10	0	0	0	0	0	1,398	14	339
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	3	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	4	2	0	0	0	0	0	0	122	1	9
Amphibians																														0			
California red-legged frog																														0	0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	29	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	30	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																														0	0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	7	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	7
Total	37,732	5	0	151	7	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	7
Invertebrates																														0			
Valley elderberry longhorn beetle																														0	0	0	0
Riparian vegetation	17,786	48	0	0	25	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	85	70	0	0	0	0	0	0	769	0	171
Nonriparian channels and grasslands	16,670	183	0	0	69	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	18	29	0	0	0	0	0	0	503	0	191
Total	34,456	231	0	0	93	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	103	99	0	0	0	0	0	0	1,272	0	362
California linderiella																														0	0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Conservancy fairy shrimp																														0	0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Longhorn fairy shrimp																														0	0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Midvalley fairy shrimp																														0	0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool fairy shrimp																														0	0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Vernal pool tadpole shrimp																														0	0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	2	1	0	0	0	0	0	0	714	32	4
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	17	0	0	0	0	0	0	35	0	17
Delta mudwort total	6,081	20	0	0	10	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	4	0	0	0	0	0	0	30	0	15
Mason's lilaeopsis total	6,081	20	0	0	10	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	4	0	0	0	0	0	0	30	0	15
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	1
Side-flowering skullcap total	2,497	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	2	1	0	0	0	0	0	0	8	0	4
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	13	0	0	0	0	0	0	10	0	13
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																														0	0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Legenere																														0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Heckard's peppergrass																														0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Boggs Lake hedge-hyssop																														0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0
Dwarf downingia																														0		0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	0

Table 12E-~~50~~53. Indirect Effects–Alternative 7 [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	18	0	0	51	343	0	412
Grassland habitat	3,103	0	161	0	0	51	263	0	475
Total	6,011	0	179	0	0	102	606	0	887
Riparian woodrat								0	0
Habitat	2,166	0	2	0	0	18	256	0	276
Total	2,166	0	2	0	0	18	256	0	276
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	169	0	0	0	0	0	169
Total	5,327	0	169	0	0	0	0	0	169
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	113	0	5	364	0	0	483
Secondary habitat	17,915	0	2	0	0	428	2	0	433
Total	25,382	0	116	0	5	793	2	0	915
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	1,172	0	44	2,785	850	0	4,850
Total	86,263	0	1,172	0	44	2,785	850	0	4,850
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	219	0	0	0	0	0	219
Roosting and foraging - Temporary	16,579	0	1,427	0	0	174	0	0	1,600
Foraging	164,676	18	7,548	0	0	1,825	0	18	9,373
Total	188,594	18	9,194	0	0	1,999	0	18	11,193
Least Bell's vireo								0	0
Migratory and breeding	14,850	0	156	0	244	619	406	0	1,426
Total	14,850	0	156	0	244	619	406	0	1,426
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	0	6,858	0	2,275	6,013	3,201	0	18,347
Nesting habitat	9,796	0	117	0	255	361	470	0	1,203
Total	487,675	0	6,975	0	2,530	6,373	3,672	0	19,550
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	14	634	0	1,612	1,152	852	14	4,251
Breeding habitat-foraging	60,828	0	373	0	931	2,389	532	0	4,225
Breeding habitat-nesting	1,935	0	38	0	89	43	114	0	284
Nonbreeding habitat-foraging ag	196,713	4	7,606	0	38	2,856	1,604	4	12,104
Nonbreeding habitat-roosting	28,067	0	349	0	49	1,214	25	0	1,638
Nonbreeding habitat-foraging	34,313	0	788	0	0	1,324	33	0	2,145
Total	424,040	18	9,787	0	2,721	8,978	3,161	18	24,647
Western burrowing owl								0	0
High-value habitat	152,014	0	1,283	0	1,202	3,038	541	0	6,064
Low-value habitat	254,352	0	4,252	0	512	1,632	1,977	0	8,373
Total	406,366	0	5,535	0	1,714	4,671	2,518	0	14,437
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	8	0	24	98	66	0	196
Migratory habitat	10,425	0	128	0	220	398	318	0	1,065
Total	12,395	0	136	0	244	496	384	0	1,261
White-tailed kite								0	0
Breeding habitat	14,069	0	172	0	269	543	523	0	1,507
Foraging habitat	507,922	0	6,891	0	2,297	6,477	2,982	0	18,647
Total	521,991	0	7,064	0	2,566	7,020	3,505	0	20,155
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	65	0	80	388	272	0	805
Secondary nesting and migratory habitat	5,528	0	91	0	5	172	135	0	402
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	156	0	244	634	406	0	1,442
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	164	0	13	219	131	0	527
Aquatic - nontidal	19,184	0	81	0	133	103	22	0	339
Upland-high	21,649	0	279	0	242	372	0	0	893
Upland-moderate	25,953	0	345	0	125	773	314	0	1,557
Upland-low	5,683	0	57	0	1	150	279	0	487
Total	84,567	0	926	0	516	1,616	745	0	3,802
Aquatic breeding, foraging, and movement (miles)	2,802	0	38	0	11	33	22	0	103
Western pond turtle								0	0
Aquatic habitat	81,666	0	600	0	150	1,856	619	0	3,225
Upland nesting and overwintering habitat	16,184	0	150	0	115	331	245	0	842
Upland nesting and overwintering habitat-NHD	12,680	0	122	0	37	243	30	0	432
Total	110,530	0	871	0	303	2,430	895	0	4,499
Aquatic habitat linear (miles) - NHD	1,425	0	16	0	1	14	3	0	35
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	147	0	0	0	0	0	147
Total	7,925	0	147	0	0	0	0	0	147

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	208	0	30	659	0	0	897
Total	37,732	0	208	0	30	861	0	0	1,098
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	90	0	56	125	200	0	472
Nonriparian channels and grasslands	16,670	0	223	0	85	261	210	0	779
Total	34,456	0	313	0	141	387	410	0	1,250
California linderiella								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Plants									
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	24	0	48	129	1	0	202
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	13	0	0	0	350	0	364
Delta mudwort total	6,081	0	87	0	10	261	122	0	480
Mason's lilaeopsis total	6,081	0	87	0	10	261	122	0	480
Delta tule pea total	5,853	0	7	0	0	420	1	0	428
Suisun Marsh aster total	5,853	0	7	0	0	420	1	0	428
Side-flowering skullcap total	2,497	0	12	0	1	80	12	0	105
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Legenere								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Dwarf downingia								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150

Alternative 8

Table 12E-~~51~~54. Direct Effects on Natural Communities–Alternative 8 with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	63	0	119
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	5	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	13	0	5
Valley/Foothill Riparian	17,966	48	0	0	25	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	435	0	112
Grassland	78,047	303	2	151	104	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,194	151	343
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	204	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	66	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	70	0	20
Managed Wetland	70,798	3	0	75	8	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,745	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,195	1,546	977	1,000	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	12,098	977	1,363
Cropland	459,778	2,090	1,495	950	952	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	11,547	950	1,286
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	225	61	42	100	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	948	42	100
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	16	18	0	36	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	63
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	401	727	11	319	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,511	11	319
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	40	51	0
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	874	40	46	83	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,316	46	95
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	29	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	1,969	0	29
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	135	0	0
Non-irrigated native pasture	3,465	1	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	310	0	1
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331	0	8
Beans (green)	122	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	237	0	0
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	20	16	54	55	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	575	54	104
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	87	63	0	169	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	270	0	249
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0
Vineyards	33,980	223	215	645	78	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	1,681	645	78
Native Vegetation	28,103	134	18	73	52	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	548	73	72
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	6	15
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	105	51	27	49	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	551	27	78
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	11	4	0	6	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	21	0	6
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Tunnel/Pipeline/Conveyance Facilities Construction				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation	CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of Recreational-Related Facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	12	3	0	3	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	58	0	3
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	75	39	26	38	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	330	26	62
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	3	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	58	0	3
Developed	90,660	71	18	2	55	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	228	2	71

Table 12E-~~52~~55. Direct Effects on Natural Communities–Alternative 8 with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
Tidal Perennial Aquatic	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	0	69	0	124
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	6	0	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	14	0	6
Valley/Foothill Riparian	17,966	48	0	0	25	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	0	732	0	147
Grassland	78,047	303	2	151	104	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	50	35	2,362	151	377
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Complex	12,133	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	375	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	1	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	0	0	126	0	2
Nontidal Perennial Aquatic	5,567	12	0	0	9	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	254	0	36
Managed Wetland	70,798	3	0	75	8	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	0	0	13,773	75	52
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	2,195	1,546	977	1,000	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	0	0	54,525	977	2,558
Cropland	459,778	2,090	1,495	950	952	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	0	0	50,787	950	2,394
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	9	0	9
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	225	61	42	100	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	0	0	3,265	42	171
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	16	18	0	36	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	0	0	1,647	0	132
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	401	727	11	319	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	0	0	5,367	11	464
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	1	0	22	0	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	135	22	21
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	0	0	2,300	0	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	0	0	110	51	2
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	874	40	46	83	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	0	0	14,002	46	428
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	6	0	0	29	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	0	0	3,521	0	50
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	0	0	0	0	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	0	0	1,551	0	6
Non-irrigated native pasture	3,465	1	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	0	0	320	0	3
Misc. grasses	422	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	0	0	35	0	4
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	1
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	24	307	0	8	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	0	0	1,343	0	22
Beans (green)	122	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	227	0	9
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	0	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	0	0	920	0	66
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	0	0	6	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	20	16	54	55	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	0	0	4,978	54	275
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	0	0	259	0	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	0	0	255	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	0	0	128	0	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	87	63	0	169	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	1,008	0	258
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	83	0	0
Vineyards	33,980	223	215	645	78	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	0	0	2,947	645	145
Native Vegetation	28,103	134	18	73	52	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	0	0	2,355	73	95
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	50	29	6	2	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	420	6	60
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non Cropland	27,328	105	51	27	49	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	0	0	3,737	27	164
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	11	4	0	6	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	0	0	112	0	10
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	0	0	12	0	3

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Tunnel/Pipeline/Conveyance Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	12	3	0	3	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	0	0	112	0	6
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	75	39	26	38	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	0	0	3,117	26	128
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	6	5	0	3	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	0	233	0	12
Developed	90,660	71	18	2	55	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	0	0	893	2	139

Table 12E-~~53~~56. Direct Effects on Wildlife and Plants–Alternative 8 with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Tunnel/Pipeline Facilities Construction				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation		CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of Recreational-Related Facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	3	27
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157	3	27
Riparian woodrat																															0	0	0
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	176	151	16
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	3	0	0	1	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	79	0	1
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	986	0	0
Total	25,382	3	0	0	1	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,066	0	1
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	78	0	119
Total	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	78	0	119
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	319	0	89
Foraging	164,676	1,154	411	138	587	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,340	138	587
Total	188,594	1,196	691	138	677	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	4,662	138	677
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	28	0	0	16	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	104
Total	14,850	28	0	0	16	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	104
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	2,012	1,199	478	778	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	12,127	478	1,282
Nesting habitat	9,796	13	0	0	13	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	265	0	68
Total	487,675	2,025	1,199	478	792	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	12,392	478	1,350
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	621	61	165	109	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	2,340	165	192
Breeding habitat-foraging	60,828	205	0	151	31	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	922	151	185
Breeding habitat-nesting	1,935	8	0	0	3	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	78
Nonbreeding habitat-foraging ag	196,713	1,034	771	11	465	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	5,552	11	518
Nonbreeding habitat-roosting	28,067	23	0	0	8	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	593	0	8
Nonbreeding habitat-foraging	34,313	98	2	0	73	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	560	0	73
Total	424,040	1,990	835	328	688	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	9,988	328	1,055
Western burrowing owl																															0	0	0
High-value habitat	152,014	434	10	223	164	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	4,944	223	409
Low-value habitat	254,352	1,337	1,111	214	499	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	5,975	214	643
Total	406,366	1,771	1,121	438	663	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	10,919	438	1,052
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	29	0	5
Migratory habitat	10,425	20	0	0	14	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	298	0	97
Total	12,395	20	0	0	14	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	327	0	101
White-tailed kite																															0	0	0
Breeding habitat	14,069	23	0	0	17	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	334	0	105
Foraging habitat	507,922	2,014	1,201	478	780	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	11,951	478	1,297
Total	521,991	2,037	1,201	478	798	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	12,285	478	1,402

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Tunnel/Pipeline Facilities Construction				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation		CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of Recreational-Related Facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	17	0	0	5	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	114	0	63
Secondary nesting and migratory habitat	5,528	10	0	0	12	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	220	0	12
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	28	0	0	16	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	410	0	104
Reptiles																																	
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	24	0	0	18	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	35	0	20
Aquatic - nontidal	19,184	20	5	0	13	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	193	0	26
Upland-high	21,649	58	2	15	65	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	603	15	223
Upland-moderate	25,953	276	8	6	72	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	1,079	6	134
Upland-low	5,683	23	0	0	4	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	154	0	4
Total	84,567	401	15	21	172	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,063	21	406
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	7	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	66	1	16
Western pond turtle																															0	0	0
Aquatic habitat	81,666	49	0	0	78	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	132	0	101
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	0	4	0	0	0	0	354	3	87
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	25	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	220	11	75
Total	110,530	209	1	14	121	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	0	4	0	0	0	0	706	14	262
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	3	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	36	1	6
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	13	151	2
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	14	151	2
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	5	0	151	7	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	7
Total	37,732	5	0	151	7	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	296	151	7
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	48	0	0	25	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	429	0	101
Nonriparian channels and grasslands	16,670	183	0	0	69	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	325	0	163
Total	34,456	231	0	0	93	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	754	0	264
California linderiella																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	203	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	286	32	2
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0
Delta mudwort total	6,081	20	0	0	10	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	28	0	12
Mason's lilaeopsis total	6,081	20	0	0	10	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	28	0	12
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Side-flowering skullcap total	2,497	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	6	0	3
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Legenere																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	202	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	204	0	0

Table 12E-~~54~~57. Direct Effects on Wildlife and Plants – Alternative 8 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Tem
Mammals																																		
Riparian brush rabbit																															0	0		
Riparian habitat	2,909	7	0	0	1	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	68	0		
Grassland habitat	3,103	150	0	3	27	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	194	3		
Total	6,011	157	0	3	27	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	262	3		
Riparian woodrat																													0		0	0		
Habitat	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0		
Total	2,166	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	51	0		
Salt marsh harvest mouse																													0		0	0		
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0		
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0		
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0		
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0		
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0		
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0		
San Joaquin kit fox																													0		0	0		
Breeding, foraging, and dispersal habitat	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151		
Total	5,327	173	0	151	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	181	151		
Suisun shrew																													0		0	0		
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0		
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0		
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0		
Birds																													0					
California black rail																													0		0	0		
Primary habitat	7,467	3	0	0	1	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	87	0		
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,043	0		
Total	25,382	3	0	0	1	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,130	0		
California clapper rail																													0		0	0		
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0		
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0		
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0		
California least tern																													0		0	0		
Nesting and Migratory Habitat	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	87	0		
Total	86,263	41	0	0	108	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	87	0		
Greater sandhill crane																													0		0	0		
Roosting and foraging - Permanent	7,340	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0		
Roosting and foraging - Temporary	16,579	39	280	0	89	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	360	0		
Foraging	164,676	1,154	411	138	587	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	0	300	1,350	4	0	5,932	138	
Total	188,594	1,196	691	138	677	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	0	300	1,350	4	0	6,295	138	
Least Bell's vireo																													0		0	0		
Migratory and breeding	14,850	28	0	0	16	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	684	0		
Total	14,850	28	0	0	16	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	684	0		
Suisun song sparrow																													0		0	0		
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0		
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0		
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0		
Swainson's hawk																													0		0	0		
Foraging habitat	477,879	2,012	1,199	478	778	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	51,721	478		
Nesting habitat	9,796	13	0	0	13	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	424	0		
Total	487,675	2,025	1,199	478	792	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	52,145	478		
Tricolored blackbird																													0		0	0		
Breeding habitat-ag foraging	102,184	621	61	165	109	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	10,208	165		
Breeding habitat-foraging	60,828	205	0	151	31	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	0	44	2,196	151		
Breeding habitat-nesting	1,935	8	0	0	3	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	81	0		
Nonbreeding habitat-foraging ag	196,713	1,034	771	11	465	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	25,760	11		
Nonbreeding habitat-roosting	28,067	23	0	0	8	8	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	1,666	0		
Nonbreeding habitat-foraging	34,313	98	2	0	73	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,442	0		
Total	424,040	1,990	835	328	688	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	41,353	328		
Western burrowing owl																													0		0	0		
High-value habitat	152,014	434	10	223	164	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	12,013	223		
Low-value habitat	254,352	1,337	1,111	214	499	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	30,954	214		
Total	406,366	1,771	1,121	438	663	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	42,967	438		
Western yellow-billed cuckoo																													0		0	0		
Breeding habitat	1,970	0	0	0	0	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	142	0		
Migratory habitat	10,425	20	0	0	14	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	402	0		
Total	12,395	20	0	0	14	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	544	0		
White-tailed kite																													0		0	0		
Breeding habitat	14,069	23	0	0	17	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	530	0		
Foraging habitat	507,922	2,014	1,201	478	780	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	55,891	478		
Total	521,991	2,037	1,201	478	798	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	56,420	478		
Yellow-breasted chat																													0		0	0		
Primary nesting and migratory habitat	8,178	17	0	0	5	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	232	0		
Secondary nesting and migratory habitat	5,528	10	0	0	12	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	367	0		
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0		
Total	14,547	28	0	0	16	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	684	0		

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																														0				
Giant garter snake																														0		0	0	
Aquatic - tidal	12,097	24	0	0	18	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	36	0	
Aquatic - nontidal	19,184	20	5	0	13	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	511	0	
Upland-high	21,649	58	2	15	65	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	832	15	
Upland-moderate	25,953	276	8	6	72	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,781	6	
Upland-low	5,683	23	0	0	4	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	198	0	
Total	84,567	401	15	21	172	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,357	21	
Aquatic breeding, foraging, and movement (miles)	2,802	12	6	1	7	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	162	1	
Western pond turtle																														0		0	0	
Aquatic habitat	81,666	49	0	0	78	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	163	0	
Upland nesting and overwintering habitat	16,184	105	0	3	17	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	708	3	
Upland nesting and overwintering habitat-NHD	12,680	55	1	11	25	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	480	11	
Total	110,530	209	1	14	121	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,351	14	
Aquatic habitat linear (miles) - NHD	1,425	7	4	1	3	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	120	1	
Amphibians																														0				
California red-legged frog																														0		0	0	
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Upland cover and dispersal habitat	7,766	5	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	29	151	
Total	7,925	6	0	151	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	30	151	
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
California tiger salamander																														0		0	0	
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Terrestrial cover and aestivation	29,459	5	0	151	7	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	
Total	37,732	5	0	151	7	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	638	151	
Invertebrates																														0				
Valley elderberry longhorn beetle																														0		0	0	
Riparian vegetation	17,786	48	0	0	25	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	726	0	
Nonriparian channels and grasslands	16,670	183	0	0	69	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	494	0	
Total	34,456	231	0	0	93	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,220	0	
California linderiella																														0		0	0	
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	
Conservancy fairy shrimp																														0		0	0	
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	
Longhorn fairy shrimp																														0		0	0	
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	
Midvalley fairy shrimp																														0		0	0	
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	
Vernal pool fairy shrimp																														0		0	0	
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	
Vernal pool tadpole shrimp																														0		0	0	
Vernal pool complex	9,607	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Degraded vernal pool complex	2,713	2	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	374	0	
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	
Plants																																		
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	
San Joaquin spearscale total	14,933	34	0	32	2	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	713	32	
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	
Delta button celery total	3,361	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	28	0	
Delta mudwort total	6,081	20	0	0	10	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	30	0	
Mason's lilaeopsis total	6,081	20	0	0	10	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	30	0	
Delta tule pea total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	
Suisun Marsh aster total	5,853	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	
Side-flowering skullcap total	2,497	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	7	0	
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	
Vernal Pool Plants																																		
Alkali milk-vetch																														0		0	0	
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	
Legenere																														0		0	0	
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0	
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0	

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat		
		Tunnel/Pipeline Facilities Construction				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Tem (
Heckard's peppergrass																													0		0	0		
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0		
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0		
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0		
Boggs Lake hedge-hyssop																													0		0	0		
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0		
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0		
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0		
Dwarf downingia																													0		0	0		
Vernal pool complex	9,557	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0		
Degraded vernal pool complex	2,576	2	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	373	0		
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	12,320	3	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	375	0		

Table 12E-~~55~~58. Indirect Effects–Alternative 8 [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	0	18	0	0	51	343	0	412
Grassland habitat	3,103	0	161	0	0	51	263	0	475
Total	6,011	0	179	0	0	102	606	0	887
Riparian woodrat								0	0
Habitat	2,166	0	2	0	0	18	256	0	276
Total	2,166	0	2	0	0	18	256	0	276
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	169	0	0	0	0	0	169
Total	5,327	0	169	0	0	0	0	0	169
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	113	0	5	364	0	0	483
Secondary habitat	17,915	0	2	0	0	428	2	0	433
Total	25,382	0	116	0	5	793	2	0	915
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	0	1,172	0	44	2,785	850	0	4,850
Total	86,263	0	1,172	0	44	2,785	850	0	4,850
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	219	0	0	0	0	0	219
Roosting and foraging - Temporary	16,579	0	1,427	0	0	174	0	0	1,600
Foraging	164,676	18	7,548	0	0	1,825	0	18	9,373
Total	188,594	18	9,194	0	0	1,999	0	18	11,193
Least Bell's vireo								0	0
Migratory and breeding	14,850	0	156	0	244	619	406	0	1,426
Total	14,850	0	156	0	244	619	406	0	1,426
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	0	6,858	0	2,275	6,013	3,201	0	18,347
Nesting habitat	9,796	0	117	0	255	361	470	0	1,203
Total	487,675	0	6,975	0	2,530	6,373	3,672	0	19,550
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	14	634	0	1,612	1,152	852	14	4,251
Breeding habitat-foraging	60,828	0	373	0	931	2,389	532	0	4,225
Breeding habitat-nesting	1,935	0	38	0	89	43	114	0	284
Nonbreeding habitat-foraging ag	196,713	4	7,606	0	38	2,856	1,604	4	12,104
Nonbreeding habitat-roosting	28,067	0	349	0	49	1,214	25	0	1,638
Nonbreeding habitat-foraging	34,313	0	788	0	0	1,324	33	0	2,145
Total	424,040	18	9,787	0	2,721	8,978	3,161	18	24,647
Western burrowing owl								0	0
High-value habitat	152,014	0	1,283	0	1,202	3,038	541	0	6,064
Low-value habitat	254,352	0	4,252	0	512	1,632	1,977	0	8,373
Total	406,366	0	5,535	0	1,714	4,671	2,518	0	14,437
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	8	0	24	98	66	0	196
Migratory habitat	10,425	0	128	0	220	398	318	0	1,065
Total	12,395	0	136	0	244	496	384	0	1,261
White-tailed kite								0	0
Breeding habitat	14,069	0	172	0	269	543	523	0	1,507
Foraging habitat	507,922	0	6,891	0	2,297	6,477	2,982	0	18,647
Total	521,991	0	7,064	0	2,566	7,020	3,505	0	20,155
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	65	0	80	388	272	0	805
Secondary nesting and migratory habitat	5,528	0	91	0	5	172	135	0	402
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	0	156	0	244	634	406	0	1,442
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	0	164	0	13	219	131	0	527
Aquatic - nontidal	19,184	0	81	0	133	103	22	0	339
Upland-high	21,649	0	279	0	242	372	0	0	893
Upland-moderate	25,953	0	345	0	125	773	314	0	1,557
Upland-low	5,683	0	57	0	1	150	279	0	487
Total	84,567	0	926	0	516	1,616	745	0	3,802

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Aquatic breeding, foraging, and movement (miles)	2,802	0	38	0	11	33	22	0	103
Western pond turtle								0	0
Aquatic habitat	81,666	0	600	0	150	1,856	619	0	3,225
Upland nesting and overwintering habitat	16,184	0	150	0	115	331	245	0	842
Upland nesting and overwintering habitat-NHD	12,680	0	122	0	37	243	30	0	432
Total	110,530	0	871	0	303	2,430	895	0	4,499
Aquatic habitat linear (miles) - NHD	1,425	0	16	0	1	14	3	0	35
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	147	0	0	0	0	0	147
Total	7,925	0	147	0	0	0	0	0	147
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	208	0	30	659	0	0	897
Total	37,732	0	208	0	30	861	0	0	1,098
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	90	0	56	125	200	0	472
Nonriparian channels and grasslands	16,670	0	223	0	85	261	210	0	779
Total	34,456	0	313	0	141	387	410	0	1,250
California linderiella								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Plants									
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	24	0	48	129	1	0	202
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	13	0	0	0	350	0	364
Delta mudwort total	6,081	0	87	0	10	261	122	0	480
Mason's lilaeopsis total	6,081	0	87	0	10	261	122	0	480
Delta tule pea total	5,853	0	7	0	0	420	1	0	428
Suisun Marsh aster total	5,853	0	7	0	0	420	1	0	428
Side-flowering skullcap total	2,497	0	12	0	1	80	12	0	105
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Legenere								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150
Dwarf downingia								0	0
Vernal pool complex	9,557	0	1	0	0	117	0	0	118
Degraded vernal pool complex	2,576	0	13	0	0	18	0	0	31
Alkali seasonal wetland	188	0	1	0	0	0	0	0	1
Total	12,320	0	15	0	0	135	0	0	150

Alternative 9

Table 12E-~~5~~59. Direct Effects on Natural Communities–Alternative 9 with Full Implementation (Near-Term) (acres) [Version July 22, 2013]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Separate Corridors Impacts				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation	CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of Recreational-Related Facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	675	0	0	345	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	696	0	356
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	62	0	0	123	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	68	0	123
Valley/Foothill Riparian	17,966	61	0	4	244	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	448	4	332
Grassland	78,047	82	0	27	317	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	971	27	556
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	3	0	10	0	0	0	13	0	0	0	0	0	0	0	0	58	0	0
Vernal Pool Complex	12,133	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	201	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	24	25	1	0	0	0	0	0	0	0	0	0	38	0	1	0	40	0	0	0	0	0	0	0	0	67	0	25
Nontidal Perennial Aquatic	5,567	0	0	0	0	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	58	0	12
Managed Wetland	70,798	9	0	2	21	24	44	88	0	1,569	1,099	1,183	42	0	223	141	1,339	26	7	2	5,718	0	0	0	0	0	0	0	0	5,751	2	65
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	350	0	1,998	402	629	363	0	0	0	0	0	0	0	482	13	3,494	1,386	432	71	5,878	0	0	10	0	1,140	700	0	0	8,707	1,998	765
Cropland	459,778	322	0	1,906	379	568	334	0	0	0	0	0	0	0	458	9	3,257	1,345	410	69	5,547	0	0	7	0	1,140	700	0	0	8,284	1,906	713
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	63	0	0	136	0	111
Wheat	4,731	90	0	95	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	95	77
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	1	0	11	18	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	664	11	18
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	323	0	0	0	330	0	0	0	0	0	0	0	0	330	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	354	43	0	0	397	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	38	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	0	0	0	0	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	27
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corn	102,424	25	0	534	133	0	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	408	534	133
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	28	0	0	0	0	0	0	0	0	28	0	0
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	99	0	0	306	0	0
Alfalfa & Alfalfa mixtures	81,396	114	0	677	50	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	516	677	62
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	0	0	0	0	67	0	0	0	0	0	0	0	0	399	1	1,349	47	92	1	1,890	0	0	6	0	0	0	0	0	1,963	0	0
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	0	0	0	70	0	0
Native Pasture	8,376	1	0	5	3	1	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	0	0	0	0	0	0	0	0	136	5	3
Non-irrigated native pasture	3,465	0	0	0	0	301	1	0	0	0	0	0	0	0	5	0	2	0	0	0	8	0	0	0	0	0	0	0	0	309	0	1
Misc. grasses	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	84	0	0
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	57	0	0	156	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	1	0	539	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	539	9
Beans (green)	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melons, squash, and cucumbers (all types)	4,432	6	0	0	2	0	0	0	0	0	0	0	0	0	13	0	211	13	0	0	237	0	0	0	0	0	0	0	0	243	0	2
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	23	0	6	9	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	563	6	58
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	13	0	10	24	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	132	10	104
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0
Vineyards	33,980	10	0	0	12	0	0	0	0	0	0	0	0	0	3	0	570	473	58	0	1,103	0	0	0	0	41	99	0	0	1,253	0	12
Native Vegetation	28,103	9	0	29	41	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	404	29	61
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	29	0	1	0	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	1	13
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non Cropland	27,328	28	0	92	23	62	29	0	0	0	0	0	0	0	25	4	237	41	21	2	330	0	0	3	0	0	0	0	0	423	92	52
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	5	0	0	3	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	11	0	3
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Separate Corridors Impacts				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	4	0	1	3	0	0	0	0	0	0	0	0	0	12	0	27	2	2	0	43	0	0	0	0	0	0	0	0	47	1	3
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	19	0	86	17	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	234	86	42
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	1	42	2	0	0	46	0	0	0	0	0	0	0	0	80	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	0	0	4	1	10	0	0	0	0	0	0	0	0	1	1	32	1	2	0	36	0	0	1	0	0	0	0	0	46	4	1
Developed	90,660	46	0	12	64	15	16	1	0	13	1	1	0	0	15	1	85	5	1	0	124	0	0	0	0	0	0	0	0	185	12	80

Table 12E-~~57~~60. Direct Effects on Natural Communities–Alternative 9 with Full Implementation (Late Long-Term) (acres) [Version July 22, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement																CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Separate Corridors Impacts				Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction	Maximum Allowable Habitat Loss		
Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	675	0	0	345	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	39	0	703	0	360
Mudflat	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
Tidal Freshwater Emergent Wetland	8,856	62	0	0	123	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3	0	69	0	123
Valley/Foothill Riparian	17,966	61	0	4	244	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	266	0	745	4	367
Grassland	78,047	82	0	27	317	388	239	1	0	1	0	1	0	0	74	3	881	61	65	35	1,122	51	34	11	399	0	0	514	35	2,138	27	590
Alkali Seasonal Wetland Complex	3,723	0	0	0	0	45	0	0	0	0	0	0	0	0	2	0	25	0	0	0	27	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Complex	12,133	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	372	0	0
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	0	0	24	25	1	0	0	0	0	0	0	0	7	0	81	7	3	2	99	0	0	0	0	0	0	8	0	126	0	25
Nontidal Perennial Aquatic	5,567	0	0	0	0	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	25	0	242	0	27
Managed Wetland	70,798	9	0	2	21	24	44	68	71	2,499	1,756	6,493	644	1	137	0	1,882	157	30	9	13,746	0	0	0	0	0	0	6	0	13,778	2	65
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	350	0	1,998	402	629	363	2	0	0	0	0	0	0	1,437	1	18,707	7,316	8,982	3,120	39,565	2,087	1,194	960	3,593	2,000	1,950	8,915	0	51,134	1,998	1,959
Cropland	459,778	322	0	1,906	379	568	334	2	0	0	0	0	0	0	1,310	1	17,348	6,848	8,426	2,879	36,814	1,947	1,108	862	3,062	2,000	1,950	8,280	0	47,525	1,906	1,821
Grain and Hay Crops	1,507	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	159	0	0	287	0	111
Wheat	4,731	90	0	95	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	16	0	99	95	77
Oats	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. grain and hay	27,667	1	0	11	18	31	0	0	0	0	0	0	0	0	27	0	810	646	1,084	251	2,817	132	72	0	0	0	0	597	0	2,981	11	90
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499	136	4	1	641	0	0	0	0	0	0	0	0	641	0	0
Mixed grain and hay	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-irrigated Mixed grain and hay	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Crops	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	622	142	0	0	764	0	0
Cotton	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	39	44	0	0	0	0	0	0	0	0	44	0	0
Safflower	15,592	0	0	0	0	5	27	0	0	0	0	0	0	0	21	0	605	434	188	55	1,302	123	69	37	147	0	0	325	0	1,614	0	96
Sugar Beets	464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	8	0	0	135	0	0	0	0	0	0	0	0	135	0	0
Corn	102,424	25	0	534	133	0	0	0	0	0	0	0	0	0	80	0	1,109	571	730	148	2,638	251	145	141	550	216	443	1,221	0	4,264	534	278
Grain sorghum	324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	6,356	0	0	0	0	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	134	0	20
Beans (dry)	6,025	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	49	112	287	1,770	2,233	67	39	0	0	0	0	401	0	2,300	0	39
Sunflowers	1,175	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0
Hybrid sorghum/sudan	305	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous field	4,571	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	71	6	92	5	1	0	1	0	0	3	0	99	0	1
Pasture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	338	0	0	700	0	0
Alfalfa & Alfalfa mixtures	81,396	114	0	677	50	0	12	0	0	0	0	0	0	0	278	0	4,979	2,255	2,853	399	10,763	604	333	300	866	347	208	2,194	0	13,203	677	395
Clover	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed pasture	30,750	0	0	0	0	67	0	0	0	0	0	0	0	0	174	0	2,933	82	87	50	3,325	43	21	18	62	0	0	138	0	3,515	0	21
Non-irrigated mixed pasture	2,995	0	0	0	0	62	0	0	0	0	0	0	0	0	1	0	82	30	7	0	121	0	0	0	0	0	0	0	0	184	0	0
Native Pasture	8,376	1	0	5	3	1	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	14	6	0	0	0	0	5	0	1,551	5	9
Non-irrigated native pasture	3,465	0	0	0	0	301	1	2	0	0	0	0	0	0	2	0	10	0	0	0	14	5	2	0	0	0	0	7	0	319	0	3
Misc. grasses	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	8	4	0	0	0	0	8	0	24	0	4
Turf farms	3,740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rye grass	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	14	0	29	0	0	0	0	0	0	0	0	29	0	0
Other Pasture	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice	10,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	278	0	0
Wild Rice	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck, nursery, and berry crops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	150	0	0	323	0	0
Artichokes	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asparagus	11,301	1	0	539	9	0	0	0	0	0	0	0	0	0	16	0	421	337	172	16	962	24	14	5	21	0	0	47	0	1,012	539	23
Beans (green)	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	181	0	0	0	0	227	0	0
Carrots	197	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	45	0	0	0	47	12	7	8	33	0	0	74	0	101	0	7
Celery	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	0	2
Lettuce	20	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8	0	0	0	17	0	0	0	0	0	0	0	0	17	0	0
Melons, squash, and cucumbers (all types)	4,432	6	0	0	2	0	0	0	0	0	0	0	0	0	0	0	228	64	163	3	458	110	66	71	280	0	0	622	0	926	0	67
Onions/garlic	303	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	4	0	0	9	0	6	0	0
Potatoes	3,053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes (processing)	31,366	23	0	6	9	68	49	0	0	0	0	0	0	0	142	0	1,565	756	1,202	31	3,696	288	171	181	709	0	0	1,514	0	4,966	6	229
Flowers, nursery, Christmas trees	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed	39	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0
Misc. truck	1,585	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	133	72	36	0	243	4	1	2	9	0	0	21	0	259	0	2
Bush berries	218	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	10	0	0	0	22	0	0	0	0	0	0	0	0	22	0	0
Strawberries	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peppers	535	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	221	0	0	0	232	11	7	3	10	0	0	22	0	255	0	7
Broccoli	13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	0	0	0	0	0	0	0	0	13	0	0
Cabbage	222	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	72	0	0	0	90	6	3	6	25	0	0	56	0	128	0	3
Market Tomatoes	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deciduous fruits and nuts	19,992	13	0	10	24	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	145	0	870	10	114
Citrus and Sub-tropical	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	65	6	74	0	0	0	0	2	6	0	0	83	0	0
Vineyards	33,980	10	0	0	12	0	0	0	0	0	0	0	0	0	25	0	739	569	741	14	2,087	115	67	0	0	72	235	336	0	2,519	0	79
Native Vegetation	28,103	9	0	29	41	18	19	0	0	0	0	0	0	0	88	0	1,101	519	367	79	2,154	30	23	0	0	0	0	175	0	2,211	29	84
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cropped within the past three years	8,166	29	0	1	0	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	346	0	369	1	58
New lands being prepped for crop production	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	0	0	31	0	0	0	0	0	0	0	0	31	0	0
Non Cropland	27,328	28	0	92	23	62	29	0	0	0	0	0	0	0	127	0	1,359	468	556	241	2,751	140	86	98	531	0	0	635	0	3,609	92	138
Semi-agricultural and incidental	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (includes a farm residence)	2,132	5	0	0	3	0	0	0	0	0	0	0	0	0	11	0	62	7	9	1	91	6	5	0	0	0	0	64	0	102	0	7
Livestock feedlots	180	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	6	6	3	0	0	0	0	12	0	12	0	3

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration	CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Separate Corridors Impacts				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation	Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Natural Community	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**Permanent (Acres)**	**Permanent Reusable Tunnel Material (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Permanent (Acres)**	**Temporary (Borrow and Spoil) (Acres)**	**Temporary (Acres)**
Dairies	891	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Poultry farms	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmsteads (without residence)	820	4	0	1	3	0	0	0	0	0	0	0	0	0	3	0	61	11	15	2	92	5	3	0	0	0	0	15	0	101	1	6
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	19	0	86	17	17	25	0	0	0	0	0	0	0	104	0	1,058	438	511	228	2,340	114	66	0	531	0	0	463	0	3,022	86	108
Riparian Vegetation	352	0	0	0	0	35	0	0	0	0	0	0	0	0	1	0	104	2	1	0	108	0	0	0	0	0	0	0	0	143	0	0
Water surface	211	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Other Ag Lands	2,097	0	0	4	1	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	82	0	221	4	9
Developed	90,660	46	0	12	64	15	16	3	3	39	14	20	2	0	47	0	383	79	58	15	664	125	68	0	0	0	0	360	0	850	12	148

Table 12E-~~58~~61. Direct Effects on Wildlife and Plants–Alternative 9 with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version July 18, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation – Separate Corridors Impacts				CM2 Yolo Bypass Fisheries Enhancement – Fremont Weir and Yolo Bypass Improvements		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration – Construction and Inundation		CM5 Seasonally Inundated Floodplain Restoration – Levee Construction		CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration – Riparian Restoration as Part of Seasonal Floodplain Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration – Construction and Inundation	CM11 Natural Community Enhancement and Management – Construction of Recreational-Related Facilities	CM18 Conservation Hatcheries – Construction	Maximum Allowable Habitat Loss		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	8	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	5
Grassland habitat	3,103	58	0	15	124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	15	124
Total	6,011	67	0	16	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	16	129
Riparian woodrat																															0	0	0
Habitat	2,166	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Total	2,166	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	30	0	534	577	770	3	0	0	0	0	0	0	0	1,349	564	0	0	0	0	0	0	0	0	1,913	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	11	0	229	50	23	0	0	0	0	0	0	0	0	74	241	0	0	0	0	0	0	0	0	315	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	8	0	64	70	24	0	0	0	0	0	0	0	0	94	71	0	0	0	0	0	0	0	0	165	0	0
Total	35,588	0	0	0	0	0	0	49	7	892	697	817	3	0	0	0	0	0	0	0	1,517	948	0	0	0	0	0	0	0	0	2,465	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	15	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	18	8	2
Total	5,327	15	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	18	8	2
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	58	0	0
Secondary habitat	4,387	0	0	0	0	0	0	10	5	0	22	9	0	0	0	0	0	0	0	0	31	15	0	0	0	0	0	0	0	0	47	0	0
Total	7,515	0	0	0	0	0	0	10	5	58	22	9	0	0	0	0	0	0	0	0	89	15	0	0	0	0	0	0	0	0	105	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	15	0	0	296	5	0	0	0	69	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	0	90	0	296
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	0	987	0	0
Total	25,382	15	0	0	296	5	0	49	0	69	402	532	2	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	0	1,077	0	296
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26	0	0
Secondary habitat	6,420	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	0	0
Total	6,716	0	0	0	0	0	0	2	5	26	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	33	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	675	0	0	345	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	712	0	356
Total	86,263	675	0	0	345	8	11	0	0	1	0	0	0	0	1	1	11	12	4	0	30	0	0	0	0	0	0	0	0	0	712	0	356
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	0	7	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	18
Foraging	164,676	37	0	367	184	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	2,812	367	184
Total	188,594	37	0	374	203	0	0	0	0	0	0	0	0	0	2	0	709	852	363	26	1,951	0	0	0	0	0	257	567	1	0	2,812	374	203
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	49	0	4	229	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	431	4	317
Total	14,850	49	0	4	229	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	431	4	317
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	5	0	432	605	2	0	0	0	0	0	0	0	1,040	58	0	0	0	0	0	0	0	0	1,097	0	0
Total	27,707	0	0	0	0	0	0	53	5	54	432	605	2	0	0	0	0	0	0	0	1,040	112	0	0	0	0	0	0	0	0	1,151	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	373	0	1,907	627	996	504	27	29	192	59	43	0	0	773	152	3,742	882	352	27	6,278	0	0	0	13	0	1,054	527	13	35	9,289	1,907	1,131
Nesting habitat	9,796	32	0	2	27	79	54	0	0	4	1	0	0	0	0	0	164	2	1	1	173	0	0	0	0	0	0	0	0	0	284	2	81
Total	487,675	404	0	1,909	654	1,075	558	27	29	196	60	43	0	0	773	152	3,906	884	354	27	6,451	0	0	0	13	0	1,054	527	13	35	9,573	1,909	1,212
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	230	0	165	128	477	84	0	0	0	0	0	0	0	106	0	79	0	0	0	106	79	0	0	2	0	867	126	0	0	1,887	165	211
Breeding habitat-foraging	60,828	55	0	11	60	105	155	19	2	286	153	99	0	0	1	0	1	0	0	0	272	288	0	0	4	0	0	0	13	35	772	11	215
Breeding habitat-nesting	1,935	8	0	1	1	13	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	1	76
Nonbreeding habitat-foraging ag	196,713	36	0	1,171	163	0	54	0	0	0	0	0	0	0	332	8	2,065	488	312	19	1,159	2,065	0	0	7	0	120	397	0	0	3,783	1,171	217
Nonbreeding habitat-roosting	28,067	58	0	0	198	8	0	36	1	0	230	171	1	0	116	0	0	4	2	1	562	0	0	0	0	0	0	0	0	0	628	0	198
Nonbreeding habitat-foraging	34,313	28	0	16	257	0	0	0	0	0	0	0	0	0	41	3	355	37	16	6	104	355	0	0	0	0	0	0	0	0	486	16	257
Total	424,040	414	0	1,364	807	603	367	54	2	286	383	270	2	0	595	11	2,499	529	331	26	2,203	2,787	0	0	13	0	987	523	13	35	7,577	1,364	1,174
Western burrowing owl																															0	0	0
High-value habitat	152,014	87	0	53	354	882	245	17	11	122	98	52	0	0	623	5	2,037	143	157	33	3,297	0	0	0	4	0	206	63	13	35	4,587	53	599
Low-value habitat	254,352	298	0	1,811	309	98	144	1	17	23	3	1	0	0	141	148	1,505	397	64	2	2,300	0	0	0	9	0	749	371	0	0	3,826	1,811	453
Total	406,366	386	0	1,864	663	979	389	17	28	145	100	53	0	0	764	152	3,541	540	220	35	5,597	0	0	0	13	0	955	434	13	35	8,413	1,864	1,052
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	14	0	3	9	26	5	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	43	3	14
Migratory habitat	10,425	30	0	0	205	57	83	0	0	0	0	0	0	0	0	0	216	2	1	1	221	0	0	0	0	0	0	0	0	0	308	0	288
Total	12,395	44	0	3	214	83	88	0	0	0	0	0	0	0	0	0	217	3	2	1	224	0	0	0	0	0	0	0	0	0	350	3	302
White-tailed kite																															0	0	0
Breeding habitat	14,069	43	0	3	86	82	88	0	0	4	1	0	0	0	0	0	218	3	2	1	230	0	0	0	0	0	0	0	0	0	355	3	174
Foraging habitat	507,922	374	0	1,908	634	1,008	516	0	32	986	733	931	3	0	0	152	3,578	870	353	27	7,667	0	0	0	13	0	0	0	13	35	9,110	1,908	1,150
Total	521,991	417	0	1,911	720	1,090	604	0	32	991	733	931	3	0	0	153	3,796	873	355	28	7,896	0	0	0	13	0	0	0	13	35	9,465	1,911	1,324

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Separate Corridors Impacts				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	31	0	0	63	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	0	128	0	121
Secondary nesting and migratory habitat	5,528	18	0	4	167	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	0	227	4	167
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	1	0	3	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	76	0	29
Total	14,547	49	0	4	231	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	0	431	4	318
Reptiles																																	
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	208	0	0	238	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	218	0	240
Aquatic - nontidal	19,184	2	0	4	24	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	0	170	4	37
Upland-high	21,649	23	0	2	73	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	0	565	2	231
Upland-moderate	25,953	96	0	41	321	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	0	35	891	41	382
Upland-low	5,683	35	0	1	189	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	0	166	1	189
Total	84,567	363	0	49	845	306	234	0	0	0	0	0	0	0	131	48	996	69	43	20	1,305	0	0	0	0	0	0	0	0	35	2,010	49	1,079
Aquatic breeding, foraging, and movement (miles)	2,802	20	0	12	8	5	9	0	0	0	0	0	0	0	3	1	30	5	3	1	44	0	0	0	0	0	0	0	0	0	69	12	18
Western pond turtle																															0	0	0
Aquatic habitat	81,666	685	0	0	468	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	768	0	491
Upland nesting and overwintering habitat	16,184	51	0	14	95	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	0	299	14	165
Upland nesting and overwintering habitat-NHD	12,680	8	0	4	61	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	0	173	4	110
Total	110,530	744	0	18	624	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	0	1,241	18	766
Aquatic habitat linear (miles) - NHD	1,425	1	0	6	2	1	3	0	0	1	1	1	0	0	1	0	14	3	2	0	24	0	0	0	0	0	0	0	0	0	26	6	5
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	0	0
Total	7,925	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	0	0
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	0	0	0	0	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	292	0	0
Total	37,732	0	0	0	0	42	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	292	0	0
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	61	0	4	244	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	0	442	4	321
Nonriparian channels and grasslands	16,670	75	0	17	263	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	0	217	17	357
Total	34,456	136	0	21	507	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	0	659	21	678
California linderiella																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0
San Joaquin spearscale total	14,933	0	0	0	0	56	0	0	0	1	0	0	0	0	164	0	31	1	0	0	196	0	0	0	0	0	0	0	0	0	252	0	1
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta button celery total	3,361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delta mudwort total	6,081	67	0	0	82	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	75	0	85
Mason's lilaeopsis total	6,081	67	0	0	82	3	2	0	0	0	0	0	0	0	0	0	0	3	1	2	5	0	0	0	0	0	0	0	0	0	75	0	85
Delta tule pea total	5,853	3	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	22
Suisun Marsh aster total	5,853	3	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	22
Side-flowering skullcap total	2,497	26	0	0	141	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	30	0	141
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	72	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Separate Corridors Impacts				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Legenere																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	179	0	21	0	0	0	200	0	0	0	0	0	0	0	0	0	200	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	179	0	21	0	0	0	201	0	0	0	0	0	0	0	0	0	201	0	0

Table 12E-~~59~~62. Direct Effects on Wildlife and Plants – Alternative 9 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version July 18, 2013]

		CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries			
		Separate Corridors Impacts				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Mammals																																		
Riparian brush rabbit																															0	0	0
Riparian habitat	2,909	8	0	1	5	0	0	0	0	0	0	0	0	0	5	0	7	3	3	1	19	0	43	35	0	0	0	0	0	0	70	1	40
Grassland habitat	3,103	58	0	15	124	0	0	0	0	0	0	0	0	0	3	0	11	1	2	0	18	0	26	20	0	0	0	0	0	0	102	15	143
Total	6,011	67	0	16	129	0	0	0	0	0	0	0	0	0	8	0	19	4	4	1	37	0	69	54	0	0	0	0	0	0	172	16	183
Riparian woodrat																															0	0	0
Habitat	2,166	2	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	53	0	34
Total	2,166	2	0	0	1	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	10	0	41	33	0	0	0	0	0	0	53	0	34
Salt marsh harvest mouse																															0	0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	67	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0	8	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	5	7	991	807	3,353	160	0	0	0	0	0	0	0	4,320	1,003	0	0	0	0	0	0	0	0	5,323	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	2	3	336	135	317	14	0	0	0	0	0	0	0	467	340	0	0	0	0	0	0	0	0	807	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	6	9	158	164	419	5	0	0	0	0	0	0	0	588	174	0	0	0	0	0	0	0	0	762	0	0
Total	35,588	0	0	0	0	0	0	13	26	1,552	1,107	4,090	179	0	0	0	0	0	0	0	5,376	1,592	0	0	0	0	0	0	0	0	6,968	0	0
San Joaquin kit fox																															0	0	0
Breeding, foraging, and dispersal habitat	5,327	15	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	22	8	2
Total	5,327	15	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	22	8	2
Suisun shrew																															0	0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	60	0	0
Secondary habitat	4,387	0	0	0	0	0	0	7	17	0	97	208	12	0	0	0	0	0	0	0	318	24	0	0	0	0	0	0	0	0	342	0	0
Total	7,515	0	0	0	0	0	0	7	17	60	97	208	12	0	0	0	0	0	0	0	377	24	0	0	0	0	0	0	0	0	401	0	0
Birds																																	
California black rail																															0	0	0
Primary habitat	7,467	15	0	0	296	5	0	0	0	71	0	0	0	0	5	0	0	1	1	1	3	76	0	0	0	0	0	0	0	0	98	0	296
Secondary habitat	17,915	0	0	0	0	0	0	29	52	0	587	2,240	118	0	0	0	12	5	0	0	2,951	93	0	0	0	0	0	0	0	0	3,044	0	0
Total	25,382	15	0	0	296	5	0	29	52	71	587	2,240	118	0	5	0	12	6	2	1	2,954	168	0	0	0	0	0	0	0	0	3,142	0	296
California clapper rail																															0	0	0
Primary habitat	296	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	0	0
Secondary habitat	6,420	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	0
Total	6,716	0	0	0	0	0	0	5	3	27	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	35	0	0
California least tern																															0	0	0
Nesting and Migratory Habitat	86,263	675	0	0	345	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	720	0	360
Total	86,263	675	0	0	345	8	11	0	0	1	0	0	0	0	1	1	14	8	9	0	36	0	2	5	0	0	0	0	0	0	720	0	360
Greater sandhill crane																															0	0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	0	7	18	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	41	0	0	0	0	0	0	0	0	0	41	7	18
Foraging	164,676	37	0	367	184	0	0	0	0	0	0	0	0	0	1	0	1,467	514	614	117	2,713	0	0	0	0	0	300	1,350	4	0	4,403	367	184
Total	188,594	37	0	374	203	0	0	0	0	0	0	0	0	0	1	0	1,508	514	614	117	2,754	0	0	0	0	0	300	1,350	4	0	4,445	374	203
Least Bell's vireo																															0	0	0
Migratory and breeding	14,850	49	0	4	229	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	705	4	338
Total	14,850	49	0	4	229	83	88	2	1	8	1	2	0	0	0	0	477	23	25	6	545	0	28	21	0	0	0	0	0	0	705	4	338
Suisun song sparrow																															0	0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55	0	0
Secondary habitat	23,986	0	0	0	0	0	0	53	70	0	657	2,712	140	0	0	0	0	0	0	0	3,510	123	0	0	0	0	0	0	0	0	3,633	0	0
Total	27,707	0	0	0	0	0	0	53	70	55	657	2,712	140	0	0	0	0	0	0	0	3,510	178	0	0	0	0	0	0	0	0	3,688	0	0
Swainson's hawk																															0	0	0
Foraging habitat	477,879	373	0	1,907	627	996	504	62	63	411	349	666	11	0	1,319	3	17,988	6,280	7,393	2,814	37,359	0	1,820	1,036	971	3,991	1,849	1,440	50	35	48,883	1,907	2,167
Nesting habitat	9,796	32	0	2	27	79	54	0	0	2	4	2	0	0	0	0	258	12	15	2	295	0	38	31	0	0	0	0	0	0	443	2	112
Total	487,675	404	0	1,909	654	1,075	558	62	63	413	353	668	11	0	1,319	3	18,246	6,292	7,408	2,816	37,654	0	1,857	1,067	971	3,991	1,849	1,440	50	35	49,326	1,909	2,279
Tricolored blackbird																															0	0	0
Breeding habitat-ag foraging	102,184	230	0	165	128	477	84	2	0	0	0	0	0	0	338	0	3,635	1,335	1,093	47	2,814	3,635	503	275	7	0	1,521	568	0	0	9,755	165	486
Breeding habitat-foraging	60,828	55	0	11	60	105	155	10	11	382	299	692	18	0	38	0	254	28	16	2	1,102	647	47	30	11	0	0	0	44	35	2,046	11	244
Breeding habitat-nesting	1,935	8	0	1	1	13	75	0	0	0	0	0	0	0	6	0	34	10	4	0	21	34	4	2	0	0	0	0	0	0	81	1	78
Nonbreeding habitat-foraging ag	196,713	36	0	1,171	163	0	54	0	0	0	0	0	0	0	530	1	8,716	2,991	4,115	851	8,489	8,716	652	367	953	3,991	210	945	0	0	23,991	1,171	583
Nonbreeding habitat-roosting	28,067	58	0	0	198	8	0	5	7	0	404	1,119	29	0	41	0	0	13	10	5	1,633	0	1	1	0	0	0	0	0	0	1,700	0	199
Nonbreeding habitat-foraging	34,313	28	0	16	257	0	0	0	0	8	44	465	7	0	38	3	651	33	49	33	672	659	3	3	0	0	0	0	7	0	1,369	16	260
Total	424,040	414	0	1,364	807	603	367	17	19	391	746	2,276	54	0	992	3	13,291	4,410	5,287	939	14,732	13,692	1,211	678	971	3,991	1,731	1,513	50	35	38,942	1,364	1,852
Western burrowing owl																															0	0	0
High-value habitat	152,014	87	0	53	354	882	245	39	40	324	216	795	81	0	620	3	6,253	783	617	158	9,929	0	142	83	11	0	362	159	50	35	11,656	53	682
Low-value habitat	254,352	298	0	1,811	309	98	144	0	4	44	21	14	0	0	478	0	9,281	3,919	3,751	2,226	19,739	0	1,452	827	960	3,991	1,314	952	0	0	28,804	1,811	1,280
Total	406,366	386	0	1,864	663	979	389	39	44	368	236	809	81	0	1,098	3	15,534	4,702	4,368	2,384	29,668	0	1,594	910	971	3,991	1,675	1,111	50	35	40,461	1,864	1,961
Western yellow-billed cuckoo																															0	0	0
Breeding habitat	1,970	14	0	3	9	26	5	0	0	0	0	0	0	0	0	0	86	13	10	1	110	0	6	5	0	0	0	0	0	0	156	3	19
Migratory habitat	10,425	30	0	0	205	57	83	0	0	0	0	0	0	0	0	0	290	6	9	4	310	0	16	11	0	0	0	0	0	0	412	0	299
Total	12,395	44	0	3	214	83	88	0	0	0	0	0	0	0	0	0	376	19	20	5	420	0	21	17	0	0	0	0	0	0	568	3	318
White-tailed kite																															0	0	0
Breeding habitat	14,069	43	0	3	86	82	88	0	0	2	4	2	0	0	0	0	339	15	17	3	383	0	42	33	0	0	0	0	0	0	550	3	207
Foraging habitat	507,922	374	0	1,908	634	1,008	516	0	71	1,372	1,133	4,528	425	0	0	3	17,811	6,227	7,240	2,815	41,625	0	1,706	968	971	3,991	1,849	1,440	50	35	53,050	1,908	2,118
Total	521,991	417	0	1,911	720	1,090	604	0	71	1,374	1,137	4,530	425	0	0	3	18,151	6,242	7,257	2,818	42,008	0	1,748	1,001	971	3,991	1,849	1,440	50	35	53,600	1,911	2,325
Yellow-breasted chat																															0	0	0
Primary nesting and migratory habitat	8,178	31	0	0	63	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	0	246	0	137
Secondary nesting and migratory habitat	5,528	18	0	4	167	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	0	374	4	173
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0	71	29	2	1	8	1	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	85	0	29
Total	14,547	49	0	4	231	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	0	705	4	339

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Separate Corridors Impacts				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Reptiles																																		
Giant garter snake																															0	0	0
Aquatic - tidal	12,097	208	0	0	238	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	219	0	243
Aquatic - nontidal	19,184	2	0	4	24	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	0	488	4	58
Upland-high	21,649	23	0	2	73	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	0	794	2	231
Upland-moderate	25,953	96	0	41	321	60	61	0	0	0	0	0	0	0	60	0	1,019	128	140	28	1,375	0	27	24	0	0	0	0	0	35	1,593	41	406
Upland-low	5,683	35	0	1	189	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	0	210	1	206
Total	84,567	363	0	49	845	306	234	0	0	0	0	0	0	0	139	1	1,870	188	230	90	2,518	0	82	65	0	0	0	0	0	35	3,304	49	1,144
Aquatic breeding, foraging, and movement (miles)	2,802	20	0	12	8	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	0	164	12	19
Western pond turtle																															0	0	0
Aquatic habitat	81,666	685	0	0	468	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	0	799	0	512
Upland nesting and overwintering habitat	16,184	51	0	14	95	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	0	654	14	180
Upland nesting and overwintering habitat-NHD	12,680	8	0	4	61	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	0	432	4	112
Total	110,530	744	0	18	624	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	0	1,886	18	804
Aquatic habitat linear (miles) - NHD	1,425	1	0	6	2	1	3	0	0	2	2	7	1	0	4	0	43	15	20	12	106	0	2	1	0	0	0	0	0	0	110	6	6
Amphibians																																	
California red-legged frog																															0	0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	24	0	0
Total	7,925	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	24	0	0
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander																															0	0	0
Aquatic breeding habitat	8,273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrestrial cover and aestivation	29,459	0	0	0	0	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	633	0	0
Total	37,732	0	0	0	0	42	0	0	0	0	0	0	0	0	101	0	404	5	6	0	517	0	0	0	0	0	0	0	40	35	633	0	0
Invertebrates																																	
Valley elderberry longhorn beetle																															0	0	0
Riparian vegetation	17,786	61	0	4	244	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	0	739	4	356
Nonriparian channels and grasslands	16,670	75	0	17	263	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	0	386	17	371
Total	34,456	136	0	21	507	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	0	1,125	21	727
California linderiella																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Conservancy fairy shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Longhorn fairy shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Midvalley fairy shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Vernal pool fairy shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Vernal pool tadpole shrimp																															0	0	0
Vernal pool complex	9,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Degraded vernal pool complex	2,713	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Plants																																	
Brittlescale total	451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Heartscale total	6,528	0	0	0	0	0	0	1	0	1	0	0	0	0	38	0	253	7	6	0	306	0	0	0	0	0	0	0	0	0	306	0	0
San Joaquin spearscale total	14,933	0	0	0	0	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	0	679	0	1
Carquinez goldenbush total	1,346	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0
Delta button celery total	3,361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	7	0	8
Delta mudwort total	6,081	67	0	0	82	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	77	0	86
Mason's lilaeopsis total	6,081	67	0	0	82	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	0	77	0	86
Delta tule pea total	5,853	3	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	22
Suisun Marsh aster total	5,853	3	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	22
Side-flowering skullcap total	2,497	26	0	0	141	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	4	0	1	1	0	0	0	0	0	0	31	0	142
Slough thistle total	1,834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	0	5	0	6
Soft bird's-beak total	1,228	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	0	0
Vernal Pool Plants																																	
Alkali milk-vetch																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Legenere																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM2 Yolo Bypass Fisheries Enhancement		Suisun Marsh							Delta						CM4 Tidal Natural Communities Restoration		CM5 Seasonally Inundated Floodplain Restoration		CM7 Riparian Natural Community Restoration		CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	CM18 Conservation Hatcheries	Maximum Allowable Habitat Loss		
		Separate Corridors Impacts				Fremont Weir and Yolo Bypass Improvements															Construction and Inundation		Levee Construction		Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration		Construction and Inundation	Construction of Recreational-Related Facilities	Construction			
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)	*High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	*Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Permanent (Acres)	Conversion (Acres)	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
Heckard's peppergrass																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Boggs Lake hedge-hyssop																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0
Dwarf downingia																															0	0	0
Vernal pool complex	9,557	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Degraded vernal pool complex	2,576	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	305	1	0	0	370	0	0	0	0	0	0	0	0	0	370	0	0
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	0	0	0	0	1	0	0	0	0	65	0	305	1	0	0	372	0	0	0	0	0	0	0	0	0	372	0	0

Table 12E-~~60~~63. Indirect Effects–Alternative 9 [Version July 24, 2013]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Mammals									
Riparian brush rabbit								0	0
Riparian habitat	2,909	1	26	0	0	51	342	1	419
Grassland habitat	3,103	1	75	0	0	51	263	1	389
Total	6,011	2	101	0	0	102	605	2	808
Riparian woodrat								0	0
Habitat	2,166	0	6	0	0	18	255	0	279
Total	2,166	0	6	0	0	18	255	0	279
Salt marsh harvest mouse								0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	93	0	0	93
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	60	0	0	60
Upland secondary	749	0	0	0	0	55	0	0	55
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	140	0	0	140
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	45	0	0	45
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	37	0	0	37
Total	35,588	0	0	0	0	429	0	0	429
San Joaquin kit fox								0	0
Breeding, foraging, and dispersal habitat	5,327	0	9	0	0	0	0	0	9
Total	5,327	0	9	0	0	0	0	0	9
Suisun shrew								0	0
Primary habitat	3,128	0	0	0	0	83	0	0	83
Secondary habitat	4,387	0	0	0	0	84	0	0	84
Total	7,515	0	0	0	0	167	0	0	167
Birds									
California black rail								0	0
Primary habitat	7,467	0	43	0	5	364	0	0	412
Secondary habitat	17,915	0	4	0	0	428	2	0	435
Total	25,382	0	47	0	5	793	2	0	847
California clapper rail								0	0
Primary habitat	296	0	0	0	0	19	0	0	19
Secondary habitat	6,420	0	0	0	0	523	0	0	523
Total	6,716	0	0	0	0	542	0	0	542
California least tern								0	0
Nesting and Migratory Habitat	86,263	9	603	0	44	2,785	845	9	4,277
Total	86,263	9	603	0	44	2,785	845	9	4,277
Greater sandhill crane								0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	0	169	0	0	174	0	0	343
Foraging	164,676	0	1,760	0	0	1,825	0	0	3,585
Total	188,594	0	1,929	0	0	1,999	0	0	3,927
Least Bell's vireo								0	0
Migratory and breeding	14,850	4	209	0	244	619	403	4	1,475
Total	14,850	4	209	0	244	619	403	4	1,475
Suisun song sparrow								0	0
Primary habitat	3,722	0	0	0	0	287	0	0	287
Secondary habitat	23,986	0	0	0	0	584	0	0	584
Total	27,707	0	0	0	0	871	0	0	871
Swainson's hawk								0	0
Foraging habitat	477,879	8	2,732	0	2,275	6,013	3,200	8	14,220
Nesting habitat	9,796	4	133	0	255	361	467	4	1,216
Total	487,675	12	2,865	0	2,530	6,373	3,667	12	15,436
Tricolored blackbird								0	0
Breeding habitat-ag foraging	102,184	17	438	0	1,612	1,152	852	17	4,055
Breeding habitat-foraging	60,828	7	114	0	931	2,389	529	7	3,964
Breeding habitat-nesting	1,935	4	32	0	89	43	112	4	276
Nonbreeding habitat-foraging ag	196,713	40	2,245	0	38	2,856	1,604	40	6,743
Nonbreeding habitat-roosting	28,067	3	159	0	49	1,214	25	3	1,448
Nonbreeding habitat-foraging	34,313	9	257	0	0	1,324	33	9	1,615
Total	424,040	80	3,246	0	2,721	8,978	3,156	80	18,101
Western burrowing owl								0	0
High-value habitat	152,014	3	455	0	1,202	3,038	540	3	5,235
Low-value habitat	254,352	1	1,760	0	512	1,632	1,977	1	5,881
Total	406,366	4	2,215	0	1,714	4,671	2,517	4	11,116
Western yellow-billed cuckoo								0	0
Breeding habitat	1,970	0	80	0	24	98	66	0	268
Migratory habitat	10,425	4	109	0	220	398	315	4	1,042
Total	12,395	4	189	0	244	496	381	4	1,310
White-tailed kite								0	0
Breeding habitat	14,069	4	217	0	269	543	520	4	1,549
Foraging habitat	507,922	8	2,723	0	2,297	6,477	2,981	8	14,477
Total	521,991	12	2,939	0	2,566	7,020	3,500	12	16,026
Yellow-breasted chat								0	0
Primary nesting and migratory habitat	8,178	0	128	0	80	388	272	0	868
Secondary nesting and migratory habitat	5,528	4	81	0	5	172	131	4	389
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	160	74	0	0	234
Total	14,547	4	209	0	244	634	403	4	1,491
Reptiles									
Giant garter snake								0	0
Aquatic - tidal	12,097	1	131	0	13	219	131	1	493
Aquatic - nontidal	19,184	0	14	0	133	103	22	0	272
Upland-high	21,649	0	105	0	242	372	0	0	718
Upland-moderate	25,953	1	289	0	125	773	314	1	1,501
Upland-low	5,683	1	53	0	1	150	278	1	482
Total	84,567	3	591	0	516	1,616	744	3	3,467
Aquatic breeding, foraging, and movement (miles)	2,802	0	24	0	11	33	22	0	89
Western pond turtle								0	0
Aquatic habitat	81,666	3	417	0	150	1,856	618	3	3,041
Upland nesting and overwintering habitat	16,184	0	100	0	115	331	245	0	792
Upland nesting and overwintering habitat-NHD	12,680	0	53	0	37	243	30	0	364
Total	110,530	3	570	0	303	2,430	894	3	4,197
Aquatic habitat linear (miles) - NHD	1,425	0	7	0	1	14	3	0	26

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation		CM2 Yolo Bypass Fisheries Enhancement		CM4 Tidal Restoration	CM5 Seasonally Inundated Floodplain Restoration	Total Allowable Indirect Effects	
		O&M (Acres)	Construction (Acres)	O&M (Acres)	Construction (Acres)	Construction (Acres)	Construction (Acres)	Permanent (Acres)	Temporary (Acres)
Amphibians									
California red-legged frog								0	0
Aquatic habitat	159	0	0	0	0	0	0	0	0
Upland cover and dispersal habitat	7,766	0	0	0	0	0	0	0	0
Total	7,925	0	0	0	0	0	0	0	0
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0
California tiger salamander								0	0
Aquatic breeding habitat	8,273	0	0	0	0	201	0	0	201
Terrestrial cover and aestivation	29,459	0	0	0	30	659	0	0	689
Total	37,732	0	0	0	30	861	0	0	890
Invertebrates									
Valley elderberry longhorn beetle								0	0
Riparian vegetation	17,786	0	86	0	56	125	200	0	468
Nonriparian channels and grasslands	16,670	0	193	0	85	261	210	0	748
Total	34,456	0	279	0	141	387	410	0	1,216
California linderiella								0	0
Vernal pool complex	9,607	0	2	0	0	89	0	0	91
Degraded vernal pool complex	2,713	0	13	0	0	45	0	0	58
Total	12,320	0	15	0	0	135	0	0	150
Conservancy fairy shrimp								0	0
Vernal pool complex	9,607	0	0	0	0	89	0	0	89
Degraded vernal pool complex	2,713	0	0	0	0	45	0	0	45
Total	12,320	0	0	0	0	135	0	0	135
Longhorn fairy shrimp								0	0
Vernal pool complex	9,607	0	0	0	0	89	0	0	89
Degraded vernal pool complex	2,713	0	0	0	0	45	0	0	45
Total	12,320	0	0	0	0	135	0	0	135
Midvalley fairy shrimp								0	0
Vernal pool complex	9,607	0	0	0	0	89	0	0	89
Degraded vernal pool complex	2,713	0	0	0	0	45	0	0	45
Total	12,320	0	0	0	0	135	0	0	135
Vernal pool fairy shrimp								0	0
Vernal pool complex	9,607	0	0	0	0	89	0	0	89
Degraded vernal pool complex	2,713	0	0	0	0	45	0	0	45
Total	12,320	0	0	0	0	135	0	0	135
Vernal pool tadpole shrimp								0	0
Vernal pool complex	9,607	0	0	0	0	89	0	0	89
Degraded vernal pool complex	2,713	0	0	0	0	45	0	0	45
Total	12,320	0	0	0	0	135	0	0	135
Plants									
Brittlescale total	451	0	0	0	0	3	0	0	3
Heartscale total	6,528	0	0	0	0	193	0	0	193
San Joaquin spearscale total	14,933	0	1	0	48	129	1	0	179
Carquinez goldenbush total	1,346	0	0	0	0	9	0	0	9
Delta button celery total	3,361	0	0	0	0	0	350	0	350
Delta mudwort total	6,081	0	62	0	10	261	122	0	455
Mason's lilaeopsis total	6,081	0	62	0	10	261	122	0	455
Delta tule pea total	5,853	0	4	0	0	420	1	0	426
Suisun Marsh aster total	5,853	0	4	0	0	420	1	0	426
Side-flowering skullcap total	2,497	0	30	0	1	80	12	0	123
Slough thistle total	1,834	0	0	0	0	0	349	0	349
Soft bird's-beak total	1,228	0	0	0	0	64	0	0	64
Suisun thistle total	1,281	0	0	0	0	66	0	0	66
Vernal Pool Plants									
Alkali milk-vetch								0	0
Vernal pool complex	9,557	0	0	0	0	117	0	0	117
Degraded vernal pool complex	2,576	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	135	0	0	135
Legenere								0	0
Vernal pool complex	9,557	0	0	0	0	117	0	0	117
Degraded vernal pool complex	2,576	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	135	0	0	135
Heckard's peppergrass								0	0
Vernal pool complex	9,557	0	0	0	0	117	0	0	117
Degraded vernal pool complex	2,576	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	135	0	0	135
Boggs Lake hedge-hyssop								0	0
Vernal pool complex	9,557	0	0	0	0	117	0	0	117
Degraded vernal pool complex	2,576	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	135	0	0	135
Dwarf downingia								0	0
Vernal pool complex	9,557	0	0	0	0	117	0	0	117
Degraded vernal pool complex	2,576	0	0	0	0	18	0	0	18
Alkali seasonal wetland	188	0	0	0	0	0	0	0	0
Total	12,320	0	0	0	0	135	0	0	135