Appendix 12E

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

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 on natural communities and covered plant and wildlife species discussed in the body of Chapter 12 of the EIR/EIS. The methodology for this modeling effort is described in Chapter 12, Section 12.3.2, *Methods of Analysis*. Tables are included that represent the effects of all alternatives analyzed in the EIR/EIS. Where different alternatives would 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 would be 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 addressing near-term and late long-term time frame impacts on natural communities, and near-term and late long-term impacts on covered plant and wildlife species. Tables are not included for the early long-term time period because this 5-year period does not warrant independent analysis for terrestrial biological resources.

Alternative 1A

1 **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

		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)**
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
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

1 **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	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
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	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	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	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	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	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	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
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	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	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	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
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	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	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	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	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
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	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	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
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
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	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	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	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	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	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
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	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	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	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
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	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	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	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
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	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	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	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	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	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
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	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
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	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
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	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
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	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	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	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	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	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	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	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
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	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
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	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	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	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
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	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	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	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
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	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	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	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	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
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	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	31	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	Suisun Marsh: Permanent (Acres)	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction of recreational-related facilities: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

1 **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: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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
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
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	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
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	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	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	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	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	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	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	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	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	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	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	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	0	1	0	0	936	50	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	0	1	0	1	938	120	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	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	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	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	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	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	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	319	0	89
Foraging	164,676	1,244	406	134	768	0	0	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	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	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	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	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	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	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	0	773	152	3,742	882	352	27	6,278	0	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	0	164	2	1	1	173	0	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	412	0	104

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: 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	0	12	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	0	12	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
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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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
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	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	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	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
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	204	0	0

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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]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Permanent (Acres))	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Permanent (Acres))	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	0	300	1,350	4	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	0	300	1,350	4	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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: 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	0	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	0	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	0	40	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	0	40	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	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	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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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
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	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	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	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
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	375	0	0

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Alternative 1B

Table 12E-5. 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	33	0	0	145	8	11	0	0	0	0	0	0	0	1	1	11	0	0	0	14	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
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
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	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	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	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	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	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
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	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	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	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
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	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	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	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
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
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	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	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
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
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	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	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	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
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	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	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	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
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	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
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	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	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	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
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	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	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	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	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
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	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
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
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	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
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	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
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	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	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
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
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
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	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	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	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	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	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	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	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
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
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	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
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	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
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	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	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	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	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
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	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

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)
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
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

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Table 12E-6. Direct Effects on Natural Communities–Alternative 1B 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: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

1 **Table 12E-7. Direct Effects on Wildlife and Plants–Alternative 1B 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: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	0	1	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	0	1	0	1	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	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	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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Delta: Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: 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	35	0	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	35	0	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	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	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
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	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	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	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
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	204	0	0

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1 **Table 12E-8. 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	3	0	2
Side-flowering skullcap total	2,497	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	4	0	1	1	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	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	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	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	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	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
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	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	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	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
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	375	0	0

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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
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	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	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	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
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	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	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	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
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	375	0	0

1

Alternative 1C

1 **Table 12E-9. Direct Effects on Natural Communities–Alternative 1C 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	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	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
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
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	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	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	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	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	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	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	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	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	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
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	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	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	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	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
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	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	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
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
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	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	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	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
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	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
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	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	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	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
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	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	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	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	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	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	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	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	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	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	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
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	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	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
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	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
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
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
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
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
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
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	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	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
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	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
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	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	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	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	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
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
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
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
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	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	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	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	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
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	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	15	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-10. 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: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	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	1	0	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-11. 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0	76	0	5
Secondary habitat	17,915	0	0	0	0	0	0	49	0	0	402	532	2	0	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0	396	2	130

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	243	20	19

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1 **Table 12E-12. 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	0	300	1,350	4	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	0	300	1,350	4	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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	4	0	1
Heartscale total	6,528	0	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	413	20	19

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Alternative 2A

Table 12E-13. 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	48	0	0	140	8	11	0	0	1	0	0	0	0	1	1	11	0	0	14	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
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	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	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	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	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	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	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
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	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	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	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
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	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	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	44	0	0	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	57	0	65	0	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
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	1	22	21	0	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
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	12	0	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
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	40	51	0	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	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	70	0	0	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	135	0	0	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	310	0	1	0	0
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	10	0	2	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	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	237	0	15	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	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	578	53	136	0	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
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	6	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	1	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

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		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)	Riparian Restoration as Part of Tidal Natural Communities Restoration	Riparian Restoration as Part of Seasonal Floodplain Restoration								
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
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

1 **Table 12E-14. Direct Effects on Natural Communities–Alternative 2A 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	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	1	0	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities (Acres)	CM18 Conservation Hatcheries: Construction (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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-15. 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	0	1,349	564	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	0	74	241	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	0	94	71	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	0	1,517	948	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	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	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	0	58	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	0	31	15	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	0	89	15	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	0	1	0	2	69	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	0	1	0	0	0	936	50	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	0	1	0	1	0	938	120	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	0	26	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	0	7	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	0	33	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	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	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	0	13	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	0	13	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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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
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	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	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	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	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	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	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
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	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	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	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	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
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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	0	204	0	0

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Table 12E-16. 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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
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	0	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	0	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																															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	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	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
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	0	300	1,350	4	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	0	300	1,350	4	6,363	134	1,099
Least Bell's vireo																															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
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	2,086	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
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
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
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
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
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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent - Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
Reptiles																														0				
Giant garter snake																														0	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	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	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	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	162	1	18
Western pond turtle																														0	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	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	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	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	0
California tiger salamander																														0	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	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	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	0	40	35	638	151	6
Invertebrates																														0				
Valley elderberry longhorn beetle																														0	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	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	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	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	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	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	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	0	1	0	1	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0	375	0	0

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Alternative 2B

Table 12E-17. Direct Effects on Natural Communities–Alternative 2B 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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	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

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Table 12E-18. Direct Effects on Natural Communities–Alternative 2B 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)	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	50	35	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-19. 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent - Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0	13	0	0	0	0	13	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	0	13	0	0	0	0	13	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	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	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	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	0	404	0	130

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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
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	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	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	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	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	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	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
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	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	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	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	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
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	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	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	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
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	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																																	
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

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1 **Table 12E-20. 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent - Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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
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	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	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	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	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	0	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	0	8	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	342	0	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	401	0	0	0
Birds																															0		
California black rail																															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
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	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
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	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	0	300	1,350	4	0	7,804	4,122	1,547
Least Bell's vireo																															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
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	5,269	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
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
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
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
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
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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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			
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			
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

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Alternative 2C

Table 12E-21. Direct Effects on Natural Communities–Alternative 2C 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation (Permanent) (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Permanent) (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Permanent) (Acres)	CM8 Grassland Restoration (Permanent) (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation (Permanent) (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities (Permanent) (Acres)	CM18 Conservation Hatcheries: Construction (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	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	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
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
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	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	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	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	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	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	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	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	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	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
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	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	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	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	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
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	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	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
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
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	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	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	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
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	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
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	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	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	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
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	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	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	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	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	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	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	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	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	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	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
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	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	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
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	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
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
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
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
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
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
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	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	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
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	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
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	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	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	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	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
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
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
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
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	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	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	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	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
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	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	15	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-22. Direct Effects on Natural Communities–Alternative 2C 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: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Delta: Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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1 **Table 12E-23. 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent - Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0	13	0	0	0	0	13	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	0	13	0	0	0	0	13	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	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	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	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	0	396	2	130

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	243	20	19

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Table 12E-24. 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	
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																													0			
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	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	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	53,431	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	
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	
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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Delta: Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	413	20	19

1

Alternative 2D

Table 12E-25. Direct Effects on Natural Communities – Alternative 2D (acres) [Version November 18, 2015]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM4 Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	Habitat Loss	
		Tunnel/Pipeline/Conveyance Facilities Construction				Construction and Inundation			Construction and Inundation	Construction of recreational-related facilities		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	283	1	0	2,010	0	0	0	0	0	285	2,010
Mudflat	Not available	Not available	Not available	Not available	Not available	0	0	0	0	0	0	0
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	0	1	0	8	0	0	0	0	0	1	8
Valley/Foothill Riparian	17,966	30	14	0	22	11	0	0	0	0	55	22
Grassland	78,047	256	219	0	136	41	1	0	0	20	537	136
Alkali Seasonal Wetland Complex	3,723	1	0	0	0	1	0	0	0	0	2	0
Vernal Pool Complex	12,133	19	0	0	3	25	0	0	0	0	44	3
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	0	2	1	0	0	0	0	3	2
Nontidal Perennial Aquatic	5,567	3	55	0	3	2	0	0	0	0	60	3
Managed Wetland	70,798	16	75	0	15	20	0	0	0	0	111	15
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	1,436	2,440	0	872	196	291	1,088	1,356	0	6,808	872
Cropland*	459,778	1,361	2,338	0	836	196	291	1,088	1,356	0	6,630	836
Grain and Hay Crops	1,507	0	0	0	2	NA	NA	NA	NA	0	NA	NA
Wheat	4,731	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Oats	74	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Misc. grain and hay	27,667	67	215	0	99	NA	NA	NA	NA	0	NA	NA
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed grain and hay	32	0	118	0	0	NA	NA	NA	NA	0	NA	NA
Non-irrigated Mixed grain and hay	2	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Field Crops	81	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cotton	78	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Safflower	15,592	65	0	0	83	NA	NA	NA	NA	0	NA	NA
Sugar Beets	464	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Corn	102,424	50	904	0	140	NA	NA	NA	NA	0	NA	NA
Grain sorghum	324	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Sudan	6,356	3	71	0	1	NA	NA	NA	NA	0	NA	NA
Beans (dry)	6,025	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Sunflowers	1,175	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Hybrid sorghum/sudan	305	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Miscellaneous field	4,571	11	0	0	0	NA	NA	NA	NA	0	NA	NA
Pasture	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Irrigated Alfalfa & Alfalfa Mixtures	81,032	474	375	0	104	NA	NA	NA	NA	0	NA	NA
Non-Irrigated Alfalfa & Alfalfa Mixtures	365	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Clover	41	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed pasture	30,750	67	101	0	41	NA	NA	NA	NA	0	NA	NA
Non-irrigated mixed pasture	2,995	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Native Pasture	8,376	0	118	0	0	NA	NA	NA	NA	0	NA	NA
Non-irrigated native pasture	3,465	7	0	0	0	NA	NA	NA	NA	0	NA	NA
Misc. grasses	422	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Turf farms	3,740	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Rye grass	29	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Other Pasture	577	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Rice	10,259	10	1	0	35	NA	NA	NA	NA	0	NA	NA
Wild Rice	578	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Truck, nursery, and berry crops	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Artichokes	49	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Asparagus	11,301	0	0	0	17	NA	NA	NA	NA	0	NA	NA
Beans (green)	122	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Carrots	197	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Celery	105	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Lettuce	20	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Melons, squash, and cucumbers (all types)	4,432	0	0	0	1	NA	NA	NA	NA	0	NA	NA
Onions/garlic	303	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Potatoes	3,053	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Tomatoes (processing)	31,366	6	271	0	82	NA	NA	NA	NA	0	NA	NA
Flowers, nursery, Christmas trees	114	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed	39	6	0	0	0	NA	NA	NA	NA	0	NA	NA
Misc. truck	1,585	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Bush berries	218	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Strawberries	18	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Peppers	535	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Broccoli	13	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cabbage	222	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Market Tomatoes	2	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Deciduous fruits and nuts	19,992	107	0	0	46	NA	NA	NA	NA	0	NA	NA
Citrus and Sub-tropical	264	1	0	0	1	NA	NA	NA	NA	0	NA	NA
Vineyards	33,980	301	45	0	122	NA	NA	NA	NA	0	NA	NA
Native Vegetation	28,103	134	111	0	55	NA	NA	NA	NA	0	NA	NA
Idle	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cropped within the past three years	8,166	53	9	0	8	NA	NA	NA	NA	0	NA	NA
New lands being prepped for crop production	235	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Non Cropland	27,328	75	102	0	36	NA	NA	NA	NA	0	NA	NA
Semi-agricultural and incidental	5	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Farmsteads (includes a farm residence)	2,132	16	0	0	4	NA	NA	NA	NA	0	NA	NA
Livestock feedlots	180	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Dairies	891	0	0	0	1	NA	NA	NA	NA	0	NA	NA
Poultry farms	38	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Farmsteads (without residence)	820	7	5	0	2	NA	NA	NA	NA	0	NA	NA
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	45	97	0	28	NA	NA	NA	NA	0	NA	NA
Riparian Vegetation	352	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Water surface	211	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Other Ag Lands	2,097	7	0	0	1	NA	NA	NA	NA	0	NA	NA
Developed	90,660	60	26	0	53	4	0	0	0	0	90	53

** Specific cropland types were not estimated for restoration impacts*
NA = Not Available

Table 12E-26. Direct Effects on Wildlife and Plants – Alternative 2D (acres) [Version November 18, 2015]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM4 Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	Total Habitat Affected	
		Tunnel/Pipeline Facilities Construction				Construction and Inundation			Construction and Inundation	Construction of recreational-related facilities		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (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	14	0	0	3	0	0	0	0	0	14	3
Grassland habitat	3,103	164	0	0	51	0	0	0	0	0	164	51
Total	6,011	178	0	0	54	0	0	0	0	0	178	54
Riparian woodrat											0	0
Habitat	2,166	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
Salt marsh harvest mouse											0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	0	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	0	0	0	0	0
Total	35,588	0	0	0	0	0	0	0	0	0	0	0
San Joaquin kit fox											0	0
Breeding, foraging, and dispersal habitat	5,327	196	62	0	68	0	0	0	0	4	262	68
Total	5,327	196	62	0	68	0	0	0	0	4	262	68
Suisun shrew											0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	4,387	0	0	0	0	0	0	0	0	0	0	0
Total	7,515	0	0	0	0	0	0	0	0	0	0	0
Birds											0	0
California black rail											0	0
Primary habitat	7,467	0	0	0	6	1	0	0	0	0	1	6
Secondary habitat	17,915	0	0	0	0	1	0	0	0	0	1	0
Total	25,382	0	0	0	6	2	0	0	0	0	2	6
California clapper rail											0	0
Primary habitat	296	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	6,420	0	0	0	0	0	0	0	0	0	0	0
Total	6,716	0	0	0	0	0	0	0	0	0	0	0
California least tern											0	0
Nesting and Migratory Habitat	86,263	283	1	0	2,010	0	0	0	0	0	285	2,010
Total	86,263	283	1	0	2,010	0	0	0	0	0	285	2,010
Greater sandhill crane											0	0
Roosting and foraging - Permanent	7,340	0	0	0	0	0	0	0	0	0	0	0
Roosting and foraging - Temporary	16,579	16	0	0	48	1	0	0	0	0	17	48
Foraging	164,676	336	1,726	0	612	90	292	849	1,356	3	4,652	612
Total	188,594	352	1,726	0	660	91	292	849	1,356	3	4,669	660
Least Bell's vireo											0	0
Migratory and breeding	14,850	17	14	0	16	10	0	0	0	0	41	16
Total	14,850	17	14	0	16	10	0	0	0	0	41	16
Suisun song sparrow											0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	23,986	0	0	0	0	0	0	0	0	0	0	0
Total	27,707	0	0	0	0	0	0	0	0	0	0	0
Swainson's hawk											0	0
Foraging habitat	477,879	1,171	2,419	0	764	259	292	1,088	1,356	20	6,606	764
Nesting habitat	9,796	10	10	0	9	5				0	25	9
Total	487,675	1,181	2,429	0	773	264	292	1,088	1,356	20	6,631	773
Tricolored blackbird											0	0
Breeding habitat-ag foraging	102,184	667	814	0	177	82	2	413	515	0	2,494	177
Breeding habitat-foraging	60,828	234	62	0	90	35	4	0	0	20	355	90
Breeding habitat-nesting	1,935	15	0	0	5	0	0	0	0	0	15	5
Nonbreeding habitat-foraging ag	196,713	155	974	0	258	77	286	675	841	0	3,007	258
Nonbreeding habitat-roosting	28,067	1	8	0	16	17	0	0	0	0	26	16
Nonbreeding habitat-foraging	34,313	23	157	0	44	23	0	0	0	0	203	44
Total	424,040	1,095	2,015	0	591	235	292	1,088	1,356	20	6,101	591
Western burrowing owl											0	0
High-value habitat	152,014	458	530	0	225	155	1	239	183	20	1,587	225
Low-value habitat	254,352	685	1,800	0	427	99	291	849	1,173	0	4,896	427
Total	406,366	1,143	2,330	0	652	254	291	1,088	1,356	20	6,482	652
Western yellow-billed cuckoo											0	0
Breeding habitat	1,970	0	6	0	1	2	0	0	0	0	8	1
Migratory habitat	10,425	10	6	0	12	7	0	0	0	0	23	12
Total	12,395	10	12	0	13	9	0	0	0	0	31	13
White-tailed kite											0	0
Breeding habitat	14,069	17	12	0	15	9				0	38	15
Foraging habitat	507,922	1,173	2,424	0	764	260	292	1,088	1,356	20	6,612	764
Total	521,991	1,190	2,435	0	780	269	292	1,088	1,356	20	6,650	780
Yellow-breasted chat											0	0
Primary nesting and migratory habitat	8,178	10	6	0	9	6	0	0	0	0	22	9
Secondary nesting and migratory habitat	5,528	7	8	0	7	4	0	0	0	0	19	7
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0					0	0	0
Total	14,547	17	14	0	16	10	0	0	0	0	41	16
Reptiles											0	0
Giant garter snake											0	0
Aquatic - tidal	12,097	14	2	0	55	0	0	0	0	0	15	55
Aquatic - nontidal	19,184	20	175	0	41	3	0	0	0	0	199	41
Upland-high	21,649	42	103	0	48	15	0	0	0	0	160	48
Upland-moderate	25,953	232	36	0	116	27	0	0	0	0	295	116
Upland-low	5,683	28	4	0	10	4	0	0	0	0	36	10
Total	84,567	337	319	0	270	49	0	0	0	0	705	270
Aquatic breeding, foraging, and movement (miles)	2,802	5	6	0	5	2	0	0	0	0	14	5
Western pond turtle											0	0
Aquatic habitat	81,666	277	58	0	1,976	23	0	0	0	0	358	1,976
Upland nesting and overwintering habitat	16,184	130	53	0	35	9	1	0	0	0	192	35
Upland nesting and overwintering habitat-NHD	12,680	28	51	0	28	29	0	0	0	0	108	28
Total	110,530	435	161	0	2,039	61	1	0	0	0	658	2,039

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM4 Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	Total Habitat Affected	
		Tunnel/Pipeline Facilities Construction				Construction and Inundation			Construction and Inundation	Construction of recreational-related facilities		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Aquatic habitat linear (miles) - NHD	1,425	3	5	0	3	2	0	0	0	0	9	3
Amphibians											0	0
California red-legged frog											0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	1	0
Upland cover and dispersal habitat	7,766	21	0	0	32	0	0	0	0	11	32	32
Total	7,925	22	0	0	32	0	0	0	0	11	33	32
Aquatic habitat (miles)	30	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	17	0	0	0	0	17	0
Terrestrial cover and aestivation	29,459	19	0	0	32	24	0	0	0	17	60	32
Total	37,732	19	0	0	32	41	0	0	0	17	77	32
Invertebrates											0	0
Valley elderberry longhorn beetle											0	0
Riparian vegetation	17,786	30	14	0	22	11	0	0	0	0	55	22
Nonriparian channels and grasslands	16,670	143	65	0	68	12	0	0	0	0	220	68
Total	34,456	173	79	0	90	23	0	0	0	0	275	90
California linderiella											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Conservancy fairy shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Longhorn fairy shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Midvalley fairy shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Vernal pool fairy shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Vernal pool tadpole shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
											0	0
Plants											0	0
Brittlescale total	451	0	0	0	0	1	0	0	0	0	1	0
Heartscale total	6,528	0	0	0	0	15	0	0	0	0	15	0
San Joaquin spearscale total	14,933	35	30	0	10	21	0	0	0	0	86	10
Carquinez goldenbush total	1,346	0	0	0	0	1	0	0	0	0	1	0
Delta button celery total	3,361	46	42	0	8	0	0	0	0	0	89	8
Delta mudwort total	6,081	15	2	0	20	0	0	0	0	0	17	20
Mason's lilaeopsis total	6,081	15	2	0	20	0	0	0	0	0	17	20
Delta tule pea total	5,853	0	0	0	2	0	0	0	0	0	0	2
Suisun Marsh aster total	5,853	0	0	0	2	0	0	0	0	0	0	2
Side-flowering skullcap total	2,497	1	0	0	2	0	0	0	0	0	2	2
Slough thistle total	1,834	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	0	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	0	0	0
Vernal Pool Plants											0	0
Alkali milk-vetch											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Legenere											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Heckard's peppergrass											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Boggs Lake hedge-hyssop											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Dwarf downingia											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3

1

Alternative 3

1 **Table 12E-27. Direct Effects on Natural Communities–Alternative 3 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	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	0	1	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-28. Direct Effects on Natural Communities–Alternative 3 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: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	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 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)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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
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	0	0	0	0	0	0	1	1	1	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	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-29. Direct Effects on Wildlife and Plants–Alternative 3 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: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent - Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0	13	0	0	0	13	35	12,298	474	1,337

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	0	12	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	0	12	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

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																																	
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

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1 **Table 12E-30. 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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: 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	0	300	1,350	4	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	0	300	1,350	4	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

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0	375	0	0

Alternative 4

Table 12E-31. Direct Effects on Natural Communities – Alternative 4 with Tunnel Alignment and Isolated Conveyance (Near-Term) (acres) [Version November 18, 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	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 rereational-related facilities	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)	Permanent (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	279	1	24	1,995	8	11	0	0	1	0	0	0	0	1	1	11	0	0	0	14	0	0	0	0	0	0	0	0	302	2,030
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
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
Tidal Freshwater Emergent Wetland	8,856	0	1	2	8	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	8	10
Valley/Foothill Riparian	17,966	23	14	5	19	89	88	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	423	112
Grassland	78,047	249	219	25	133	388	239	0	0	1	0	0	0	0	39	3	345	37	16	6	448	0	0	4	0	0	0	13	35	1,356	397
Alkali Seasonal Wetland Complex	3,723	1	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	59	0
Vernal Pool Complex	12,133	19	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	220	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	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	2	2	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	5
Nontidal Perennial Aquatic	5,567	3	55	3	3	24	12	0	0	0	0	0	0	0	5	2	19	8	0	0	34	0	0	0	0	0	0	0	0	116	17
Managed Wetland	70,798	16	0	10	15	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	5,759	69
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
Cultivated Lands	487,106	1,292	2,253	251	904	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	11,901	1,518
Cropland	459,778	1,224	2,161	245	869	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	11,347	1,449
Grain and Hay Crops	1,507	0	0	0	2	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	113
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
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
Misc. grain and hay	27,667	64	175	31	96	31	0	0	0	0	0	0	0	0	32	0	149	331	120	0	632	0	0	0	0	0	0	0	0	901	127
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
Mixed grain and hay	32	0	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	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
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
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
Safflower	15,592	18	0	0	74	5	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	101
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
Corn	102,424	50	893	109	137	0	0	0	0	0	0	0	0	0	0	29	21	23	0	73	0	0	1	0	123	185	0	0	1,326	246	
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
Sudan	6,356	3	71	0	1	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	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
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
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
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	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	0	306	0
Irrigated Alfalfa & Alfalfa Mixtures	81,032	474	375	24	105	0	12	0	0	0	0	0	0	0	0	0	66	30	28	0	124	0	0	0	0	198	80	0	0	1,251	140
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	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
Mixed pasture	30,750	1	101	0	105	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	2,066	105
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
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
Non-irrigated native pasture	3,465	1	0	0	6	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	6
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
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
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
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
Rice	10,259	10	1	6	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	0	0	94	41
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
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
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
Asparagus	11,301	0	0	16	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
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
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
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
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
Melons, squash, and cucumbers (all types)	4,432	0	0	0	1	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	1
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
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
Tomatoes (processing)	31,366	6	217	26	82	68	49	0	0	0	0	0	0	0	0	0	132	321	19	0	471	0	0	0	0	0	0	0	0	763	157
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
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
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	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
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
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
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
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
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

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 rereational-related facilities	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)	Permanent (Acres)	Temporary (Acres)
Deciduous fruits and nuts	19,992	99	0	3	37	0	80	0	0	0	0	0	0	0	0	0	53	32	3	0	88	0	0	0	0	12	19	0	0	218	120
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
Vineyards	33,980	301	13	23	117	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	1,557	140
Native Vegetation	28,103	126	71	5	48	18	19	0	0	0	0	0	0	0	6	1	301	15	26	29	377	0	0	0	0	0	0	0	0	593	73
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
Cropped within the past three years	8,166	53	9	1	8	2	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	22
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
Non Cropland	27,328	68	92	6	34	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	69
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
Farmsteads (includes a farm residence)	2,132	11	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	17	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
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	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	0
Farmsteads (without residence)	820	6	5	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	54	2
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	44	87	5	27	17	25	0	0	0	0	0	0	0	10	2	129	35	18	2	196	0	0	2	0	0	0	0	0	346	57
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
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	7	0	1	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	53	2
Developed	90,660	43	26	9	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	207	72

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Table 12E-32. Direct Effects on Natural Communities – Alternative 4 with Tunnel Alignment and Isolated Conveyance (Late Long-Term) (acres) [Version November 18, 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	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 (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)	Permanent (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	279	1	24	1,995	8	11	0	0	1	0	0	0	0	1	1	14	0	0	0	18	2	5	0	0	0	0	0	0	309	2,034
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
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
Tidal Freshwater Emergent Wetland	8,856	0	1	2	8	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	9	11
Valley/Foothill Riparian	17,966	23	14	5	19	89	88	0	0	0	0	0	0	0	0	0	490	25	28	8	552	43	35	0	0	0	0	0	0	720	147
Grassland	78,047	249	219	25	133	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	2,523	432
Alkali Seasonal Wetland Complex	3,723	1	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	73	0
Vernal Pool Complex	12,133	19	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	391	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	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	2	2	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	5
Nontidal Perennial Aquatic	5,567	3	55	3	3	24	12	0	0	0	0	0	0	0	25	0	94	23	38	10	189	28	16	0	0	0	0	0	0	300	33
Managed Wetland	70,798	16	0	10	15	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	13,786	69
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
Cultivated Lands	487,106	1,292	2,253	251	904	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	54,328	2,712
Cropland	459,778	1,224	2,161	245	869	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	50,587	2,557
Grain and Hay Crops	1,507	0	0	0	2	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	113
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
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
Misc. grain and hay	27,667	64	175	31	96	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	3,218	198
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
Mixed grain and hay	32	0	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	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
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
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
Safflower	15,592	18	0	0	74	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	1,631	170
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
Corn	102,424	50	893	109	137	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	5,182	390
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
Sudan	6,356	3	71	0	1	0	20	0	0	0	0	0	0	0	1	0	29	11	93	1	134	0	0	0	0	0	0	0	0	208	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	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
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
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	0	110	4
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	0	362	338	0	700	0
Irrigated Alfalfa & Alfalfa Mixtures	81,032	474	375	24	105	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	13,937	473
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	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
Mixed pasture	30,750	1	101	0	105	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	3,618	126
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
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	0	1,669	6
Non-irrigated native pasture	3,465	1	0	0	6	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	8
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	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
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
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
Rice	10,259	10	1	6	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	223	0	0	288	41
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
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
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
Asparagus	11,301	0	0	16	17	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	48
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
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	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	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
Melons, squash, and cucumbers (all types)	4,432	0	0	0	1	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	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
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
Tomatoes (processing)	31,366	6	217	26	82	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	5,166	327
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
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
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	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
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
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	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
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	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
Deciduous fruits and nuts	19,992	99	0	3	37	0	80	0	0	0	0	0	0	0	152	0	421	65	136	1	775	14	10	0	0	22	46	0	0	956	129
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
Vineyards	33,980	301	13	23	117	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	2,823	207
Native Vegetation	28,103	126	71	5	48	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	2,400	96
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
Cropped within the past three years	8,166	53	9	1	8	2	13	0	0	0	0	0	0	0	4	0	48	6	8	1	66	77	45	40	156	0	0	0	0	403	67
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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Geotechnical) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
Non Cropland	27,328	68	92	6	34	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	155
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
Farmsteads (includes a farm residence)	2,132	11	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	0	0	108	8
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	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	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	0
Farmsteads (without residence)	820	6	5	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	108	6
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	44	87	5	27	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	3,134	123
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
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	7	0	1	1	10	0	0	0	0	0	0	0	0	4	0	63	9	19	9	105	9	9	98	0	0	0	0	0	228	10
Developed	90,660	43	26	9	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	872	140

1 **Table 12E-33. Direct Effects on Wildlife and Plants – Alternative 4 (Near-Term) (acres) [Version November 18, 2015]**

		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 rereational-related facilities	Construction		
Resource	**Total Existing Modeled Habitat in the Plan Area (Acres)**	**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)**	**Permanent (Acres)**	**Temporary (Acres)**
Mammals																																
Riparian brush rabbit																															0	0
Riparian habitat	2,909	14	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	14	3
Grassland habitat	3,103	164	0	17	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	68
Total	6,011	178	0	17	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	178	71
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	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
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	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	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
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	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	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	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	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	196	62	0	68	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	261	68
Total	5,327	196	62	0	68	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	261	68
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	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	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	0	89	15	0	0	0	0	0	0	0	105	0
Birds																															0	
California black rail																															0	0
Primary habitat	7,467	0	0	5	6	5	0	0	0	69	0	0	0	0	0	0	0	0	0	1	0	2	69	0	0	0	0	0	0	0	76	11
Secondary habitat	17,935	0	0	0	0	0	0	49	0	0	402	532	2	0	0	0	0	1	0	0	0	936	50	0	0	0	0	0	0	0	986	0
Total	25,403	0	0	5	6	5	0	49	0	69	402	532	2	0	0	0	0	1	0	1	0	938	120	0	0	0	0	0	0	0	1,063	11
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	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	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	0	33	0	0	0	0	0	0	0	33	0
California least tern																															0	0
Nesting and Migratory Habitat	86,263	279	1	24	1,995	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	318	2,030
Total	86,263	279	1	24	1,995	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	318	2,030
Greater sandhill crane																															0	0
Roosting and foraging - Permanent	7,340	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
Roosting and foraging - Temporary	16,579	16	0	22	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	16	71
Foraging	165,700	202	1,506	204	656	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	4,483	860
Total	189,619	217	1,506	230	704	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	4,498	934
Least Bell's vireo																															0	0
Migratory and breeding	14,850	16	14	5	15	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	411	107
Total	14,850	16	14	5	15	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	411	107
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	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	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	0	1,151	0
Swainson's hawk																															0	0
Foraging habitat	477,939	1,039	2,199	242	810	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	12,154	1,556
Nesting habitat	10,112	6	10	3	7	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	268	64
Total	488,051	1,045	2,209	245	817	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	12,423	1,620
Tricolored blackbird																															0	0
Breeding habitat-ag foraging	102,184	655	734	5	167	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	3,046	256
Breeding habitat-foraging	60,828	228	62	17	88	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	1,007	259
Breeding habitat-nesting	1,935	15	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	0	28	80
Nonbreeding habitat-foraging ag	196,713	84	963	161	325	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	4,794	541
Nonbreeding habitat-roosting	28,096	1	8	5	16	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	579	21
Nonbreeding habitat-foraging	34,313	22	157	9	44	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	638	53
Total	424,069	1,005	1,924	197	645	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	10,092	1,209
Western burrowing owl																															0	0
High-value habitat	152,087	373	490	28	286	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	5,362	559
Low-value habitat	254,435	634	1,660	145	414	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	5,821	703
Total	406,523	1,007	2,150	174	699	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	11,184	1,262
Western yellow-billed cuckoo																															0	0
Breeding habitat	2,245	0	6	1	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	34	6
Migratory habitat	10,467	9	6	4	11	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	98
Total	12,712	9	12	5	12	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	104
White-tailed kite																															0	0
Breeding habitat	14,386	13	12	4	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	104
Foraging habitat	508,416	1,041	2,204	243	810	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	13	35	11,980	1,571
Total	522,802	1,054	2,215	247	823	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	13	35	12,316	1,674

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Geotechnical) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of rereational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
Yellow-breasted chat																														0	0
Primary nesting and migratory habitat	8,495	9	6	3	8	9	58	0	0	0	0	0	0	0	0	0	83	1	2	1	87	0	0	0	0	0	0	0	0	111	68
Secondary nesting and migratory habitat	5,528	7	8	2	7	3	0	0	0	0	0	0	0	0	0	0	199	5	2	1	206	0	0	0	0	0	0	0	0	224	9
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	16	14	5	15	83	88	1	0	3	1	1	0	0	0	0	282	6	4	2	299	0	0	0	0	0	0	0	0	411	107
Reptiles																															
Giant garter snake																														0	0
Aquatic - tidal	12,097	12	2	6	53	9	2	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	24	61
Aquatic - nontidal	19,184	20	175	11	41	59	13	0	0	0	0	0	0	0	5	2	89	9	3	0	109	0	0	0	0	0	0	0	0	364	64
Upland-high	21,649	32	84	6	44	178	158	0	0	0	0	0	0	0	43	1	239	32	32	17	364	0	0	0	0	0	0	0	0	658	209
Upland-moderate	25,953	226	36	27	113	60	61	0	0	0	0	0	0	0	70	43	552	26	7	1	700	0	0	0	0	0	0	0	35	1,058	201
Upland-low	5,683	26	4	5	9	1	0	0	0	0	0	0	0	0	11	0	116	1	1	1	129	0	0	0	0	0	0	0	0	160	15
Total	84,567	317	301	55	260	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	2,264	550
Aquatic breeding, foraging, and movement (miles)	2,802	5	6	1	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	59	16
Western pond turtle																														0	0
Aquatic habitat	81,666	277	58	29	1,976	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	418	2,028
Upland nesting and overwintering habitat	16,184	130	53	19	35	109	70	2	1	48	41	16	0	0	2	0	24	2	0	0	136	0	0	0	4	0	0	0	0	431	124
Upland nesting and overwintering habitat-NHD	12,680	28	51	2	28	21	49	5	5	12	7	2	0	0	9	1	88	9	5	2	144	0	0	0	0	0	0	0	0	244	79
Total	110,530	435	161	50	2,039	167	141	52	6	60	48	18	0	0	10	1	111	11	6	2	326	0	0	0	4	0	0	0	0	1,093	2,230
Aquatic habitat linear (miles) - NHD	1,425	3	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	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	21	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	8	0	29	32
Total	7,925	22	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	8	0	30	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	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	0
Terrestrial cover and aestivation	29,459	19	0	0	32	42	0	0	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	311	32
Total	37,732	19	0	0	32	42	0	0	0	0	0	0	0	0	0	0	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	35	311	32
Invertebrates																															
Valley elderberry longhorn beetle																														0	0
Riparian vegetation	17,786	23	14	5	19	83	76	0	0	0	0	0	0	0	0	0	286	6	4	2	298	0	0	0	0	0	0	0	0	418	100
Nonriparian channels and grasslands	16,670	136	65	22	65	41	94	1	0	9	4	0	0	0	7	0	59	13	6	1	100	0	0	0	0	0	0	0	0	342	181
Total	34,456	159	79	27	84	125	170	1	0	9	4	0	0	0	7	1	345	19	10	2	398	0	0	0	0	0	0	0	0	760	281
California linderiella																														0	0
Vernal pool complex	9,607	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	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	20	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	221	3
Conservancy fairy shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	221	3
Longhorn fairy shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	221	3
Midvalley fairy shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	221	3
Vernal pool fairy shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	221	3
Vernal pool tadpole shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	221	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	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 rereational-related facilities	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)	Permanent (Acres)	Temporary (Acres)
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
Heartscale total	6,528	0	0	0	0	0	0	0	0	1	0	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	35	30	0	10	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	317	11
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
Delta button celery total	3,361	46	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	0	89	8
Delta mudwort total	6,081	13	2	4	18	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	23	24
Mason's lilaeopsis total	6,081	13	2	4	18	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	23	24
Delta tule pea total	5,853	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	1	2
Suisun Marsh aster total	5,853	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	1	2
Side-flowering skullcap total	2,497	1	0	2	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	5	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
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
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
Vernal Pool Plants																																
Alkali milk-vetch																															0	0
Vernal pool complex	9,557	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	0	13	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	0	207	2
Alkali seasonal wetland	188	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
Total	12,320	20	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	221	3
Legenere																															0	0
Vernal pool complex	9,557	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	0	13	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	0	207	2
Alkali seasonal wetland	188	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
Total	12,320	20	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	221	3
Heckard's peppergrass																															0	0
Vernal pool complex	9,557	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	0	13	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	0	207	2
Alkali seasonal wetland	188	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
Total	12,320	20	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	221	3
Boggs Lake hedge-hyssop																															0	0
Vernal pool complex	9,557	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	0	13	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	0	207	2
Alkali seasonal wetland	188	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
Total	12,320	20	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	221	3
Dwarf downingia																															0	0
Vernal pool complex	9,557	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	0	13	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	0	207	2
Alkali seasonal wetland	188	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
Total	12,320	20	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	221	3

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Table 12E-34. Direct Effects on Wildlife and Plants – Alternative 4 (Late Long-Term) (acres) [Version November 18, 2015]

		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 (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)	Permanent (Acres)	Temporary (Acres)
Mammals																																
Riparian brush rabbit																															0	0
Riparian habitat	2,909	14	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	0	76	38
Grassland habitat	3,103	164	0	17	51	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	208	88
Total	6,011	178	0	17	54	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	284	126
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	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	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	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
Breeding, foraging, and dispersal habitat	5,327	196	62	0	68	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	266	68
Total	5,327	196	62	0	68	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	266	68
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	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
Primary habitat	7,467	0	0	5	6	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	11
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	0	3,043	0
Total	25,403	0	0	5	6	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	11
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	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
Nesting and Migratory Habitat	86,263	279	1	24	1,995	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	326	2,034
Total	86,263	279	1	24	1,995	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	326	2,034
Greater sandhill crane																															0	0
Roosting and foraging - Permanent	7,340	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
Roosting and foraging - Temporary	16,579	16	0	22	48	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	57	71
Foraging	165,700	202	1,506	204	656	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	6,074	860
Total	189,619	217	1,506	230	704	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	6,131	934
Least Bell's vireo																															0	0
Migratory and breeding	14,850	16	14	5	15	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	686	128
Total	14,850	16	14	5	15	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	686	128
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	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
Foraging habitat	477,939	1,039	2,199	242	810	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	51,749	2,592
Nesting habitat	10,112	6	10	3	7	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	427	96
Total	488,051	1,045	2,209	245	817	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	52,176	2,688
Tricolored blackbird																															0	0
Breeding habitat-ag foraging	102,184	655	734	5	167	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	10,914	531
Breeding habitat-foraging	60,828	228	62	17	88	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	2,281	289
Breeding habitat-nesting	1,935	15	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	0	89	82
Nonbreeding habitat-foraging ag	196,713	84	963	161	325	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	25,002	907
Nonbreeding habitat-roosting	28,096	1	8	5	16	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	1,651	22
Nonbreeding habitat-foraging	34,313	22	157	9	44	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	1,520	56
Total	424,069	1,005	1,924	197	645	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	41,457	1,887
Western burrowing owl																															0	0
High-value habitat	152,087	373	490	28	286	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	12,432	642
Low-value habitat	254,435	634	1,660	145	414	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	30,800	1,530
Total	406,523	1,007	2,150	174	699	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	43,232	2,171
Western yellow-billed cuckoo																															0	0
Breeding habitat	2,245	0	6	1	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	147	12
Migratory habitat	10,467	9	6	4	11	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	109
Total	12,712	9	12	5	12	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	120
White-tailed kite																															0	0
Breeding habitat	14,386	13	12	4	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	137
Foraging habitat	508,416	1,041	2,204	243	810	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	50	35	55,919	2,539
Total	522,802	1,054	2,215	247	823	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	50	35	56,452	2,676

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Geotechnical) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
Yellow-breasted chat																														0	0
Primary nesting and migratory habitat	8,495	9	6	3	8	9	58	0	0	0	0	0	0	0	0	0	149	14	16	3	182	0	23	15	0	0	0	0	0	230	84
Secondary nesting and migratory habitat	5,528	7	8	2	7	3	0	0	0	0	0	0	0	0	0	0	328	9	9	3	349	0	5	6	0	0	0	0	0	371	15
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	16	14	5	15	83	88	2	1	8	1	2	0	0	0	0	478	23	25	6	545	0	28	21	0	0	0	0	0	686	128
Reptiles																															
Giant garter snake																														0	0
Aquatic - tidal	12,097	12	2	6	53	9	2	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	3	0	0	0	0	0	25	64
Aquatic - nontidal	19,184	20	175	11	41	59	13	0	0	0	0	0	0	0	37	0	237	38	60	21	393	0	34	21	0	0	0	0	0	682	85
Upland-high	21,649	32	84	6	44	178	158	0	0	0	0	0	0	0	33	0	477	17	26	39	594	0	0	0	0	0	0	0	0	887	209
Upland-moderate	25,953	226	36	27	113	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	1,759	225
Upland-low	5,683	26	4	5	9	1	0	0	0	0	0	0	0	0	7	0	137	4	3	2	154	0	20	18	0	0	0	0	0	204	32
Total	84,567	317	301	55	260	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	3,558	615
Aquatic breeding, foraging, and movement (miles)	2,802	5	6	1	5	5	9	0	0	0	0	0	0	0	8	0	73	18	23	16	138	0	2	1	0	0	0	0	0	155	17
Western pond turtle																														0	0
Aquatic habitat	81,666	277	58	29	1,976	37	23	45	0	0	0	0	0	0	0	0	0	0	0	0	45	0	32	21	0	0	0	0	0	449	2,049
Upland nesting and overwintering habitat	16,184	130	53	19	35	109	70	3	5	86	95	139	2	0	13	0	113	6	5	4	473	0	12	15	10	0	0	0	0	785	140
Upland nesting and overwintering habitat-NHD	12,680	28	51	2	28	21	49	9	9	48	11	64	1	0	12	1	203	16	15	11	399	0	4	2	0	0	0	0	0	503	81
Total	110,530	435	161	50	2,039	167	141	57	14	134	107	203	3	0	24	1	316	22	20	15	917	0	48	39	10	0	0	0	0	1,737	2,269
Aquatic habitat linear (miles) - NHD	1,425	3	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	116	8
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	21	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	24	45	32
Total	7,925	22	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	24	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	19	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	653	32
Total	37,732	19	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	653	32
Invertebrates																															
Valley elderberry longhorn beetle																														0	0
Riparian vegetation	17,786	23	14	5	19	83	76	0	0	0	0	0	0	0	0	0	490	25	28	8	552	0	43	35	0	0	0	0	0	715	135
Nonriparian channels and grasslands	16,670	136	65	22	65	41	94	1	2	11	10	18	0	0	18	0	149	16	22	13	260	0	9	14	0	0	0	0	0	511	195
Total	34,456	159	79	27	84	125	170	1	2	11	10	18	0	0	18	0	640	42	50	21	813	0	52	49	0	0	0	0	0	1,226	331
California linderiella																														0	0
Vernal pool complex	9,607	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	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	20	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	392	3
Conservancy fairy shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	392	3
Longhorn fairy shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	392	3
Midvalley fairy shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	392	3
Vernal pool fairy shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	392	3
Vernal pool tadpole shrimp																														0	0
Vernal pool complex	9,607	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	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	20	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	392	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	35	30	0	10	56	0	0	0	1	0	0	0	0	83	0	525	4	8	0	622	0	1	1	0	0	0	0	0	744	11
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	46	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	95	16
Delta mudwort total	6,081	13	2	4	18	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	25	26
Mason's lilaeopsis total	6,081	13	2	4	18	3	2	0	0	0	0	0	0	0	0	0	0	2	2	2	6	0	1	2	0	0	0	0	0	25	26
Delta tule pea total	5,853	0	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	2	3
Suisun Marsh aster total	5,853	0	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	2	3
Side-flowering skullcap total	2,497	1	0	2	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	6	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	**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	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	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	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
Total	12,320	20	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	392	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	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 (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)**	**Permanent (Acres)**	**Temporary (Acres)**
Legenere																															0	0
Vernal pool complex	9,557	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	13	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	0	378	2
Alkali seasonal wetland	188	1	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	1	0
Total	12,320	20	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	0	392	3
Heckard's peppergrass																															0	0
Vernal pool complex	9,557	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	0	13	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	0	378	2
Alkali seasonal wetland	188	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
Total	12,320	20	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	0	392	3
Boggs Lake hedge-hyssop																															0	0
Vernal pool complex	9,557	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	0	13	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	0	378	2
Alkali seasonal wetland	188	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
Total	12,320	20	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	0	392	3
Dwarf downingia																															0	0
Vernal pool complex	9,557	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	0	13	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	0	378	2
Alkali seasonal wetland	188	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
Total	12,320	20	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	0	392	3

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Alternative 4A

Table 12E-35. Direct Effects on Natural Communities – Alternative 4A (acres) [Version November 18, 2015]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Geotechnical) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Acres)	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of recreational-related facilities: Permanent (Acres)	TOTAL Habitat Affected: Permanent (Acres)	TOTAL Habitat Affected: Temporary (Acres)
Tidal Perennial Aquatic	86,263	279	1	24	1,995	0	0	0	0	0	280	2,019
Mudflat	Not available	Not available	Not available	Not available	Not available	0	0	0	0	0	0	0
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	0	1	2	8	0	0	0	0	0	1	10
Valley/Foothill Riparian	17,966	23	14	5	19	11	0	0	0	0	47	24
Grassland	78,047	249	219	25	133	40	1	0	0	20	528	158
Alkali Seasonal Wetland Complex	3,723	1	0	0	0	1	0	0	0	0	2	0
Vernal Pool Complex	12,133	19	0	0	3	25	0	0	0	0	44	3
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	2	2	1	0	0	0	0	3	4
Nontidal Perennial Aquatic	5,567	3	55	3	3	2	0	0	0	0	60	6
Managed Wetland	70,798	16	0	10	15	20	0	0	0	0	36	25
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	1,292	2,253	251	904	192	250	1,070	832	0	5,888	1,155
Cropland*	459,778	1,224	2,161	245	869	192	250	1,070	832	0	5,729	1,115
Grain and Hay Crops	1,507	0	0	0	2	NA	NA	NA	NA	0	NA	NA
Wheat	4,731	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Oats	74	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Misc. grain and hay	27,667	64	175	31	96	NA	NA	NA	NA	0	NA	NA
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed grain and hay	32	0	118	0	0	NA	NA	NA	NA	0	NA	NA
Non-irrigated Mixed grain and hay	2	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Field Crops	81	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cotton	78	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Safflower	15,592	18	0	0	74	NA	NA	NA	NA	0	NA	NA
Sugar Beets	464	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Corn	102,424	50	893	109	137	NA	NA	NA	NA	0	NA	NA
Grain sorghum	324	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Sudan	6,356	3	71	0	1	NA	NA	NA	NA	0	NA	NA
Beans (dry)	6,025	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Sunflowers	1,175	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Hybrid sorghum/sudan	305	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Miscellaneous field	4,571	11	0	2	0	NA	NA	NA	NA	0	NA	NA
Pasture	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Irrigated Alfalfa & Alfalfa Mixtures	81,032	474	375	24	105	NA	NA	NA	NA	0	NA	NA
Non-Irrigated Alfalfa & Alfalfa Mixtures	365	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Clover	41	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed pasture	30,750	1	101	0	105	NA	NA	NA	NA	0	NA	NA
Non-irrigated mixed pasture	2,995	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Native Pasture	8,376	0	118	0	0	NA	NA	NA	NA	0	NA	NA
Non-irrigated native pasture	3,465	1	0	0	6	NA	NA	NA	NA	0	NA	NA
Misc. grasses	422	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Turf farms	3,740	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Rye grass	29	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Other Pasture	577	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Rice	10,259	10	1	6	35	NA	NA	NA	NA	0	NA	NA
Wild Rice	578	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Truck, nursery, and berry crops	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Artichokes	49	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Asparagus	11,301	0	0	16	17	NA	NA	NA	NA	0	NA	NA
Beans (green)	122	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Carrots	197	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Celery	105	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Lettuce	20	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Melons, squash, and cucumbers (all types)	4,432	0	0	0	1	NA	NA	NA	NA	0	NA	NA
Onions/garlic	303	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Potatoes	3,053	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Tomatoes (processing)	31,366	6	217	26	82	NA	NA	NA	NA	0	NA	NA
Flowers, nursery, Christmas trees	114	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed	39	6	0	0	0	NA	NA	NA	NA	0	NA	NA
Misc. truck	1,585	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Bush berries	218	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Strawberries	18	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Peppers	535	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Broccoli	13	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cabbage	222	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Market Tomatoes	2	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Deciduous fruits and nuts	19,992	99	0	3	37	NA	NA	NA	NA	0	NA	NA
Citrus and Sub-tropical	264	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Vineyards	33,980	301	13	23	117	NA	NA	NA	NA	0	NA	NA
Native Vegetation	28,103	126	71	5	48	NA	NA	NA	NA	0	NA	NA
Idle	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cropped within the past three years	8,166	53	9	1	8	NA	NA	NA	NA	0	NA	NA
New lands being prepped for crop production	235	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Non Cropland	27,328	68	92	6	34	NA	NA	NA	NA	0	NA	NA
Semi-agricultural and incidental	5	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Farmsteads (includes a farm residence)	2,132	11	0	0	3	NA	NA	NA	NA	0	NA	NA
Livestock feedlots	180	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Dairies	891	0	0	0	1	NA	NA	NA	NA	0	NA	NA
Poultry farms	38	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Farmsteads (without residence)	820	6	5	0	2	NA	NA	NA	NA	0	NA	NA
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	44	87	5	27	NA	NA	NA	NA	0	NA	NA
Riparian Vegetation	352	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Water surface	211	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Other Ag Lands	2,097	7	0	1	1	NA	NA	NA	NA	0	NA	NA
Developed	90,660	43	26	9	47	4	0	0	0	0	73	56

** Specific cropland types were not estimated for restoration impacts*
NA = Not Available

Table 12E-36. Direct Effects on Wildlife and Plants – Alternative 4A (acres) [Version November 18, 2015]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM4 Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	TOTAL Habitat Affected	
		Tunnel/Pipeline Facilities Construction				Construction and Inundation			Construction and Inundation	Construction of rereational-related facilities		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (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	14	0	0	3	0	0	0	0	0	14	3
Grassland habitat	3,103	164	0	17	51	0	0	0	0	0	164	68
Total	6,011	178	0	17	54	0	0	0	0	0	178	71
Riparian woodrat											0	0
Habitat	2,166	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
Salt marsh harvest mouse											0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	0	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	0	0	0	0	0
Total	35,588	0	0	0	0	0	0	0	0	0	0	0
San Joaquin kit fox											0	0
Breeding, foraging, and dispersal habitat	5,327	196	62	0	68	0	0	0	0	4	262	68
Total	5,327	196	62	0	68	0	0	0	0	4	262	68
Suisun shrew											0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	4,387	0	0	0	0	0	0	0	0	0	0	0
Total	7,515	0	0	0	0	0	0	0	0	0	0	0
Birds											0	0
California black rail											0	0
Primary habitat	7,467	0	0	5	6	1	0	0	0	0	1	11
Secondary habitat	17,915	0	0	0	0	1	0	0	0	0	1	0
Total	25,382	0	0	5	6	2	0	0	0	0	2	11
California clapper rail											0	0
Primary habitat	296	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	6,420	0	0	0	0					0	0	0
Total	6,716	0	0	0	0	0	0	0	0	0	0	0
California least tern											0	0
Nesting and Migratory Habitat	86,263	279	1	24	1,995	0	0	0	0	0	281	2,019
Total	86,263	279	1	24	1,995	0	0	0	0	0	281	2,019
Greater sandhill crane											0	0
Roosting and foraging - Permanent	7,340	0	0	4	0					0	0	4
Roosting and foraging - Temporary	16,579	16	0	22	48	1	0	0	0	0	16	71
Foraging	164,676	202	1,506	204	656	88	251	843	832	3	3,724	860
Total	188,594	217	1,506	230	704	89	251	843	832	3	3,741	934
Least Bell's vireo											0	0
Migratory and breeding	14,850	16	14	5	15	10	0	0	0	0	40	20
Total	14,850	16	14	5	15	10	0	0	0	0	40	20
Suisun song sparrow											0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	23,986	0	0	0	0	0	0	0	0	0	0	0
Total	27,707	0	0	0	0	0	0	0	0	0	0	0
Swainson's hawk											0	0
Foraging habitat	477,879	1,039	2,199	242	810	254	251	1,070	832	20	5,665	1,052
Nesting habitat	9,796	6	10	3	7	5				0	21	10
Total	487,675	1,045	2,209	245	817	259	251	1,070	832	20	5,686	1,062
Tricolored blackbird											0	0
Breeding habitat-ag foraging	102,184	655	734	5	167	81	2	407	316	0	2,195	172
Breeding habitat-foraging	60,828	228	62	17	88	35	3			20	347	105
Breeding habitat-nesting	1,935	15	0	0	4	0	0			0	15	4
Nonbreeding habitat-foraging ag	196,713	84	963	161	325	76	246	663	516	0	2,549	487
Nonbreeding habitat-roosting	28,067	1	8	5	16	17	0			0	26	21
Nonbreeding habitat-foraging	34,313	22	157	9	44	23	0			0	202	53
Total	424,040	1,005	1,924	197	645	232	251	1,070	832	20	5,334	842
Western burrowing owl											0	0
High-value habitat	152,014	373	490	28	286	153	1	235	112	20	1,384	314
Low-value habitat	254,352	634	1,660	145	414	97	250	835	720	0	4,196	559
Total	406,366	1,007	2,150	174	699	250	251	1,070	832	20	5,580	873
Western yellow-billed cuckoo											0	0
Breeding habitat	1,970	0	6	1	1	2	0	0	0	0	7	2
Migratory habitat	10,425	9	6	4	11	7	0	0	0	0	22	15
Total	12,395	9	12	5	12	9	0	0	0	0	30	16
White-tailed kite											0	0
Breeding habitat	14,069	13	12	4	13	9				0	34	16
Foraging habitat	507,922	1,041	2,204	243	810	256	251	1,070	832	20	5,673	1,054
Total	521,991	1,054	2,215	247	823	265	251	1,070	832	20	5,707	1,070
Yellow-breasted chat											0	0
Primary nesting and migratory habitat	8,178	9	6	3	8	6	0	0	0	0	21	10
Secondary nesting and migratory habitat	5,528	7	8	2	7	4	0	0	0	0	19	9
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0					0	0	0
Total	14,547	16	14	5	15	10	0	0	0	0	40	20
Reptiles											0	0
Giant garter snake											0	0
Aquatic - tidal	12,097	12	2	6	53	0	0	0	0	0	14	59
Aquatic - nontidal	19,184	20	175	11	41	3	0	0	0	0	199	51
Upland-high	21,649	32	84	6	44	15	0	0	0	0	131	51
Upland-moderate	25,953	226	36	27	113	27	0	0	0	0	289	140
Upland-low	5,683	26	4	5	9	4	0	0	0	0	34	15
Total	84,567	317	301	55	260	49	0	0	0	0	667	316
Aquatic breeding, foraging, and movement (miles)	2,802	5	6	1	5	2	0	0	0	0	13	6
Western pond turtle											0	0
Aquatic habitat	81,666	277	58	29	1,976	23	0	0	0	0	358	2,005
Upland nesting and overwintering habitat	16,184	130	53	19	35	9	1	0	0	0	192	55
Upland nesting and overwintering habitat-NHD	12,680	28	51	2	28	29	0	0	0	0	108	29
Total	110,530	435	161	50	2,039	61	1	0	0	0	658	2,089

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM4 Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	TOTAL Habitat Affected	
		Tunnel/Pipeline Facilities Construction				Construction and Inundation			Construction and Inundation	Construction of rereational-related facilities		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Aquatic habitat linear (miles) - NHD	1,425	3	4	1	3	2	0	0	0	0	8	4
Amphibians											0	0
California red-legged frog											0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	1	0
Upland cover and dispersal habitat	7,766	21	0	0	32	0	0	0	0	11	32	32
Total	7,925	22	0	0	32	0	0	0	0	11	33	32
Aquatic habitat (miles)	30	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	17	0	0	0	0	17	0
Terrestrial cover and aestivation	29,459	19	0	0	32	24	0	0	0	17	60	32
Total	37,732	19	0	0	32	41	0	0	0	17	77	32
Invertebrates											0	0
Valley elderberry longhorn beetle											0	0
Riparian vegetation	17,786	23	14	5	19	11	0	0	0	0	48	24
Nonriparian channels and grasslands	16,670	136	65	22	65	12	0	0	0	0	213	87
Total	34,456	159	79	27	84	23	0	0	0	0	261	111
California linderiella											0	0
Vernal pool complex	9,607	**13**	0	0	**0**	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	**2**	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Conservancy fairy shrimp											0	0
Vernal pool complex	9,607	**13**	0	0	**0**	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	**2**	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Longhorn fairy shrimp											0	0
Vernal pool complex	9,607	**13**	0	0	**0**	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	**2**	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Midvalley fairy shrimp											0	0
Vernal pool complex	9,607	**13**	0	0	**0**	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	**2**	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Vernal pool fairy shrimp											0	0
Vernal pool complex	9,607	**13**	0	0	**0**	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	**2**	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Vernal pool tadpole shrimp											0	0
Vernal pool complex	9,607	**13**	0	0	**0**	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	**2**	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
											0	0
Plants											0	0
Brittlescale total	451	0	0	0	0	**1**	0	0	0	0	1	0
Heartscale total	6,528	0	0	0	0	14	0	0	0	0	14	0
San Joaquin spearscale total	14,933	35	30	0	10	21	0	0	0	0	86	10
Carquinez goldenbush total	1,346	0	0	0	0	**1**	0	0	0	0	1	0
Delta button celery total	3,361	46	42	0	8		0	0	0	0	89	8
Delta mudwort total	6,081	13	2	4	18	0	0	0	0	0	15	22
Mason's lilaeopsis total	6,081	13	2	4	18	0	0	0	0	0	15	22
Delta tule pea total	5,853	0	0	0	2	**0**	0	0	0	0	0	2
Suisun Marsh aster total	5,853	0	0	0	2	**0**	0	0	0	0	0	2
Side-flowering skullcap total	2,497	1	0	2	2	0	0	0	0	0	2	5
Slough thistle total	1,834	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	0	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	0	0	0
Vernal Pool Plants											0	0
Alkali milk-vetch											0	0
Vernal pool complex	9,557	**12**	0	0	**0**	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	**2**	8	0	0	0	0	15	2
Alkali seasonal wetland	188	**1**	0	0	**0**	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Legenere											0	0
Vernal pool complex	9,557	**12**	0	0	**0**	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	**2**	8	0	0	0	0	15	2
Alkali seasonal wetland	188	**1**	0	0	**0**	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Heckard's peppergrass											0	0
Vernal pool complex	9,557	**12**	0	0	**0**	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	**2**	8	0	0	0	0	15	2
Alkali seasonal wetland	188	**1**	0	0	**0**	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Boggs Lake hedge-hyssop											0	0
Vernal pool complex	9,557	**12**	0	0	**0**	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	**2**	8	0	0	0	0	15	2
Alkali seasonal wetland	188	**1**	0	0	**0**	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Dwarf downingia											0	0
Vernal pool complex	9,557	**12**	0	0	**0**	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	**2**	8	0	0	0	0	15	2
Alkali seasonal wetland	188	**1**	0	0	**0**	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3

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Alternative 5

Table 12E-37. Direct Effects on Natural Communities–Alternative 5 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7: 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)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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
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
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	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	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	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	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	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
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	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	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	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
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	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	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	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	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
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	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	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
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
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	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	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	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
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	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
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	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
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	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
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	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	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	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
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	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	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	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	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	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
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
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
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	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
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	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
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	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	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
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
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
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	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
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
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	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
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
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	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
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
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
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
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
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
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	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	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	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	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
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	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

		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)
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
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-38. Direct Effects on Natural Communities–Alternative 5 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: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration	CM7: 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)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	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	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	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	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	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	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
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	1	0	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	0	0	223	13	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-39. Direct Effects on Wildlife and Plants–Alternative 5 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 (Borow 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 (Borow 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	0	1	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	0	257	567	1	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	0	257	567	1	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	0	13	0	1,054	527	13	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	0	13	0	1,054	527	13	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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent - Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	0	12	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	0	12	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: 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)
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	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	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
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	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	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	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
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	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	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	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
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	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	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	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
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	204	0	0

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Table 12E-40. 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: 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	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	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	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	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	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	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
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	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	0	1,898	721	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	0	140	248	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	0	236	158	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	0	2,275	1,201	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	0	59	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	0	81	24	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	0	140	24	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	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	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	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	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	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	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	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	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	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	41	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	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	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	0	381	6	4	2	403	0	28	21	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	0	381	6	4	2	403	0	28	21	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	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	0	1,479	102	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	0	1,479	157	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	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	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	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	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	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	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	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	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	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	541	0	120

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: 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	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	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
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	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	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	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
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	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	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	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
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	272	0	0

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Alternative 5A

Table 12E-41. Direct Effects on Natural Communities – Alternative 5A (acres) [Version November 18, 2015]

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM4 Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	Habitat Loss	
		Tunnel/Pipeline/Conveyance Facilities Construction				Construction and Inundation			Construction and Inundation	Construction of recreational-related facilities		
		Permanent (Acres)	Permanent Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Tidal Perennial Aquatic	86,263	275	1	0	1,977	0	0	0	0	0	277	1,977
Mudflat	Not available	Not available	Not available	Not available	Not available	0	0	0	0	0	0	0
Tidal Brackish Emergent Wetland	8,501	0	0	0	0	0	0	0	0	0	0	0
Tidal Freshwater Emergent Wetland	8,856	0	1	0	8	0	0	0	0	0	1	8
Valley/Foothill Riparian	17,966	18	14	0	14	10	0	0	0	0	42	14
Grassland	78,047	235	219	0	130	40	1	0	0	20	515	130
Alkali Seasonal Wetland Complex	3,723	1	0	0	0	1	0	0	0	0	2	0
Vernal Pool Complex	12,133	19	0	0	3	25	0	0	0	0	44	3
Other Natural Seasonal Wetland	842	0	0	0	0	0	0	0	0	0	0	0
Nontidal Freshwater Perennial Emergent Wetland	1,509	1	1	0	2	1	0	0	0	0	3	2
Nontidal Perennial Aquatic	5,567	3	55	0	3	2	0	0	0	0	60	3
Managed Wetland	70,798	16	0	0	15	20	0	0	0	0	36	15
Inland Dune Scrub	19	0	0	0	0	0	0	0	0	0	0	0
Cultivated Lands	487,106	1,133	2,253	0	804	190	212	1,043	832	0	5,663	804
Cropland*	459,778	1,072	2,161	0	773	190	212	1,043	832	0	5,510	773
Grain and Hay Crops	1,507	0	0	0	2	NA	NA	NA	NA	0	NA	NA
Wheat	4,731	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Oats	74	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Misc. grain and hay	27,667	64	175	0	97	NA	NA	NA	NA	0	NA	NA
Non-irrigated Misc. Grain and Hay	1,303	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed grain and hay	32	0	118	0	0	NA	NA	NA	NA	0	NA	NA
Non-irrigated Mixed grain and hay	2	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Field Crops	81	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cotton	78	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Safflower	15,592	0	0	0	60	NA	NA	NA	NA	0	NA	NA
Sugar Beets	464	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Corn	102,424	50	893	0	136	NA	NA	NA	NA	0	NA	NA
Grain sorghum	324	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Sudan	6,356	3	71	0	1	NA	NA	NA	NA	0	NA	NA
Beans (dry)	6,025	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Sunflowers	1,175	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Hybrid sorghum/sudan	305	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Miscellaneous field	4,571	11	0	0	0	NA	NA	NA	NA	0	NA	NA
Pasture	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Irrigated Alfalfa & Alfalfa Mixtures	81,032	443	375	0	88	NA	NA	NA	NA	0	NA	NA
Non-Irrigated Alfalfa & Alfalfa Mixtures	365	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Clover	41	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed pasture	30,750	10	101	0	96	NA	NA	NA	NA	0	NA	NA
Non-irrigated mixed pasture	2,995	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Native Pasture	8,376	0	118	0	0	NA	NA	NA	NA	0	NA	NA
Non-irrigated native pasture	3,465	1	0	0	5	NA	NA	NA	NA	0	NA	NA
Misc. grasses	422	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Turf farms	3,740	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Rye grass	29	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Other Pasture	577	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Rice	10,259	10	1	0	35	NA	NA	NA	NA	0	NA	NA
Wild Rice	578	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Truck, nursery, and berry crops	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Artichokes	49	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Asparagus	11,301	0	0	0	17	NA	NA	NA	NA	0	NA	NA
Beans (green)	122	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Carrots	197	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Celery	105	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Lettuce	20	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Melons, squash, and cucumbers (all types)	4,432	0	0	0	1	NA	NA	NA	NA	0	NA	NA
Onions/garlic	303	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Potatoes	3,053	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Tomatoes (processing)	31,366	6	217	0	82	NA	NA	NA	NA	0	NA	NA
Flowers, nursery, Christmas trees	114	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Mixed	39	6	0	0	0	NA	NA	NA	NA	0	NA	NA
Misc. truck	1,585	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Bush berries	218	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Strawberries	18	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Peppers	535	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Broccoli	13	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cabbage	222	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Market Tomatoes	2	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Deciduous fruits and nuts	19,992	56	0	0	17	NA	NA	NA	NA	0	NA	NA
Citrus and Sub-tropical	264	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Vineyards	33,980	251	13	0	90	NA	NA	NA	NA	0	NA	NA
Native Vegetation	28,103	108	71	0	39	NA	NA	NA	NA	0	NA	NA
Idle	0	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Cropped within the past three years	8,166	53	9	0	7	NA	NA	NA	NA	0	NA	NA
New lands being prepped for crop production	235	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Non Cropland	27,328	61	92	0	31	NA	NA	NA	NA	0	NA	NA
Semi-agricultural and incidental	5	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Farmsteads (includes a farm residence)	2,132	10	0	0	1	NA	NA	NA	NA	0	NA	NA
Livestock feedlots	180	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Dairies	891	0	0	0	1	NA	NA	NA	NA	0	NA	NA
Poultry farms	38	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Farmsteads (without residence)	820	5	5	0	2	NA	NA	NA	NA	0	NA	NA
Misc. semi-ag (small roads, ditches, non-planted areas of cropped fields)	20,602	39	87	0	26	NA	NA	NA	NA	0	NA	NA
Riparian Vegetation	352	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Water surface	211	0	0	0	0	NA	NA	NA	NA	0	NA	NA
Other Ag Lands	2,097	7	0	0	1	NA	NA	NA	NA	0	NA	NA
Developed	90,660	33	26	0	42	4	0	0	0	0	63	42

** Specific cropland types were not estimated for restoration impacts*

NA = Not Available

Table 12E-42. Direct Effects on Wildlife and Plants – Alternative 5A (acres) [Version November 18, 2015]

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM4 Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	Total Habitat Affected	
		Tunnel/Pipeline Facilities Construction				Construction and Inundation			Construction and Inundation	Construction of recreational-related facilities		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (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	14	0	0	3	0	0	0	0	0	14	3
Grassland habitat	3,103	164	0	0	51	0	0	0	0	0	164	51
Total	6,011	178	0	0	54	0	0	0	0	0	178	54
Riparian woodrat											0	0
Habitat	2,166	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
Salt marsh harvest mouse											0	0
Tidal brackish emergent wetland primary	3,641	0	0	0	0	0	0	0	0	0	0	0
Tidal brackish emergent wetland secondary	2,718	0	0	0	0	0	0	0	0	0	0	0
Upland secondary	749	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—wetland primary, low long-term conservation value	21,891	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—wetland secondary, low long-term conservation value	2,800	0	0	0	0	0	0	0	0	0	0	0
Managed wetland—upland, low long-term conservation value	3,787	0	0	0	0	0	0	0	0	0	0	0
Total	35,588	0	0	0	0	0	0	0	0	0	0	0
San Joaquin kit fox											0	0
Breeding, foraging, and dispersal habitat	5,327	196	62	0	68	0	0	0	0	4	262	68
Total	5,327	196	62	0	68	0	0	0	0	4	262	68
Suisun shrew											0	0
Primary habitat	3,128	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	4,387	0	0	0	0	0	0	0	0	0	0	0
Total	7,515	0	0	0	0	0	0	0	0	0	0	0
Birds											0	0
California black rail											0	0
Primary habitat	7,467	0	0	0	6	1	0	0	0	0	1	6
Secondary habitat	17,915	0	0	0	0	1	0	0	0	0	1	0
Total	25,382	0	0	0	6	2	0	0	0	0	2	6
California clapper rail											0	0
Primary habitat	296	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	6,420	0	0	0	0	0	0	0	0	0	1	0
Total	6,716	0	0	0	0	0	0	0	0	0	0	0
California least tern											0	0
Nesting and Migratory Habitat	86,263	275	1	0	1,977	0	0	0	0	0	277	1,977
Total	86,263	275	1	0	1,977	0	0	0	0	0	277	1,977
Greater sandhill crane											0	0
Roosting and foraging - Permanent	7,340	0	0	0	0					0	0	0
Roosting and foraging - Temporary	16,579	16	0	0	48	1	0	0	0	0	17	48
Foraging	164,676	121	1,506	0	600	88	213	824	832	3	3,587	600
Total	188,594	137	1,506	0	648	89	213	824	832	3	3,604	648
Least Bell's vireo											0	0
Migratory and breeding	14,850	14	14	0	11	10	0	0	0	0	38	11
Total	14,850	14	14	0	11	10	0	0	0	0	38	11
Suisun song sparrow											0	0
Primary habitat	3,722	0	0	0	0	0	0	0	0	0	0	0
Secondary habitat	23,986	0	0	0	0	0	0	0	0	0	0	0
Total	27,707	0	0	0	0	0	0	0	0	0	0	0
Swainson's hawk											0	0
Foraging habitat	477,879	974	2,199	0	759	252	213	1,043	832	20	5,533	759
Nesting habitat	9,796	2	10	0	5	5				0	17	5
Total	487,675	976	2,209	0	764	257	213	1,043	832	20	5,550	764
Tricolored blackbird											0	0
Breeding habitat-ag foraging	102,184	640	734	0	156	81	2	396	316	0	2,169	156
Breeding habitat-foraging	60,828	223	62	0	87	35	2			20	342	87
Breeding habitat-nesting	1,935	15	0	0	4	0	0			0	15	4
Nonbreeding habitat-foraging ag	196,713	61	963	0	300	76	209	647	516	0	2,471	300
Nonbreeding habitat-roosting	28,067	1	8	0	13	17	0			0	26	13
Nonbreeding habitat-foraging	34,313	14	157	0	42	22	0			0	193	42
Total	424,040	953	1,924	0	603	231	213	1,043	832	20	5,216	603
Western burrowing owl											0	0
High-value habitat	152,014	353	490	0	265	152	1	229	112	20	1,358	265
Low-value habitat	254,352	579	1,660	0	380	96	212	814	720	0	4,080	380
Total	406,366	932	2,150	0	646	248	213	1,043	832	20	5,438	646
Western yellow-billed cuckoo											0	0
Breeding habitat	1,970	0	6	0	1	2	0	0	0	0	8	1
Migratory habitat	10,425	7	6	0	8	7	0	0	0	0	21	8
Total	12,395	7	12	0	9	9	0	0	0	0	28	9
White-tailed kite											0	0
Breeding habitat	14,069	9	12	0	9	9	0	0	0	0	30	9
Foraging habitat	507,922	972	2,204	0	759	254	213	1,043	832	20	5,538	759
Total	521,991	981	2,215	0	768	263	213	1,043	832	20	5,568	768
Yellow-breasted chat											0	0
Primary nesting and migratory habitat	8,178	7	6	0	6	6	0	0	0	0	19	6
Secondary nesting and migratory habitat	5,528	7	8	0	5	4	0	0	0	0	19	5
Suisun Marsh/upper Yolo Bypass nest and migratory habitat	841	0	0	0	0					0	0	0
Total	14,547	14	14	0	11	10	0	0	0	0	38	11
Reptiles											0	0
Giant garter snake											0	0
Aquatic - tidal	12,097	11	2	0	49	0	0	0	0	0	12	49
Aquatic - nontidal	19,184	20	175	0	41	3	0	0	0	0	199	41
Upland-high	21,649	16	84	0	42	15	0	0	0	0	115	42
Upland-moderate	25,953	223	36	0	107	27	0	0	0	0	286	107
Upland-low	5,683	25	4	0	9	4	0	0	0	0	33	9
Total	84,567	295	301	0	248	49	0	0	0	0	645	248
Aquatic breeding, foraging, and movement (miles)	2,802	5	6	0	5	2	0	0	0	0	13	5
Western pond turtle											0	0
Aquatic habitat	81,666	277	58	0	1,976	23	0	0	0	0	358	1,976
Upland nesting and overwintering habitat	16,184	130	53	0	35	9	1	0	0	0	192	35
Upland nesting and overwintering habitat-NHD	12,680	28	51	0	28	29	0	0	0	0	108	28
Total	110,530	435	161	0	2,039	61	0	0	0	0	657	2,039

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation				CM4 Tidal Natural Communities Restoration	CM7 Riparian Natural Community Restoration	CM8 Grassland Restoration	CM10 Nontidal Marsh Natural Community Restoration	CM11 Natural Community Enhancement and Management	Total Habitat Affected	
		Tunnel/Pipeline Facilities Construction				Construction and Inundation			Construction and Inundation	Construction of recreational-related facilities		
		Permanent (Acres)	Permanent - Reusable Tunnel Material (Acres)	Temporary (Geotechnical) (Acres)	Temporary (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Permanent (Acres)	Temporary (Acres)
Aquatic habitat linear (miles) - NHD	1,425	3	4	0	3	2	0	0	0	0	9	3
Amphibians											0	0
California red-legged frog											0	0
Aquatic habitat	159	1	0	0	0	0	0	0	0	0	1	0
Upland cover and dispersal habitat	7,766	21	0	0	32	0	0	0	0	11	32	32
Total	7,925	22	0	0	32	0	0	0	0	11	33	32
Aquatic habitat (miles)	30	0	0	0	0	0	0	0	0	0	0	0
California tiger salamander											0	0
Aquatic breedng habitat	8,273	0	0	0	0	17	0	0	0	0	17	0
Terrestrial cover and aestivation	29,459	19	0	0	32	24	0	0	0	17	60	32
Total	37,732	19	0	0	32	41	0	0	0	17	77	32
Invertebrates											0	0
Valley elderberry longhorn beetle											0	0
Riparian vegetation	17,786	18	14	0	14	10	0	0	0	0	42	14
Nonriparian channels and grasslands	16,670	123	65	0	63	12	0	0	0	0	200	63
Total	34,456	142	79	0	76	22	0	0	0	0	242	76
California linderiella											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Conservancy fairy shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Longhorn fairy shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Midvalley fairy shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Vernal pool fairy shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
Vernal pool tadpole shrimp											0	0
Vernal pool complex	9,607	13	0	0	0	17	0	0	0	0	30	0
Degraded vernal pool complex	2,713	7	0	0	2	8	0	0	0	0	15	2
Total	12,320	20	0	0	3	25	0	0	0	0	45	3
											0	0
Plants											0	0
Brittlescale total	451	0	0	0	0	1	0	0	0	0	1	0
Heartscale total	6,528	0	0	0	0	14	0	0	0	0	14	0
San Joaquin spearscale total	14,933	35	30	0	10	20	0	0	0	0	85	10
Carquinez goldenbush total	1,346	0	0	0	0	1	0	0	0	0	1	0
Delta button celery total	3,361	46	42	0	8	0	0	0	0	0	89	8
Delta mudwort total	6,081	11	2	0	14	0	0	0	0	0	14	14
Mason's lilaeopsis total	6,081	11	2	0	14	0	0	0	0	0	14	14
Delta tule pea total	5,853	0	0	0	2	0	0	0	0	0	0	2
Suisun Marsh aster total	5,853	0	0	0	2	0	0	0	0	0	0	2
Side-flowering skullcap total	2,497	0	0	0	2	0	0	0	0	0	0	2
Slough thistle total	1,834	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	0	0	0
Suisun thistle total	1,281	0	0	0	0	0	0	0	0	0	0	0
Vernal Pool Plants											0	0
Alkali milk-vetch											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Legenere											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Heckard's peppergrass											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Boggs Lake hedge-hyssop											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3
Dwarf downingia											0	0
Vernal pool complex	9,557	12	0	0	0	17	0	0	0	0	29	0
Degraded vernal pool complex	2,576	7	0	0	2	8	0	0	0	0	15	2
Alkali seasonal wetland	188	1	0	0	0	1	0	0	0	0	2	0
Total	12,320	20	0	0	3	26	0	0	0	0	46	3

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Alternative 7

Table 12E-43. Direct Effects on Natural Communities–Alternative 7 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	11	0	0	0	14	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
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
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	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	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	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
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	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	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	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
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	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	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	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	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
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	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	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
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
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	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	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	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
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	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
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	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
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	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
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	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	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	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
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	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	70	0	0
Native Pasture	8,376	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	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	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	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
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
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
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	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
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	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
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	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	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
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
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
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	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
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
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	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
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	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	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
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
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
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
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
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
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	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	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	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	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
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	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

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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	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

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Table 12E-44. Direct Effects on Natural Communities–Alternative 7 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: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	4	9	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
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	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	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	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	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	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	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
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	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	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	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
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	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	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	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	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
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	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	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
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
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	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	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	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	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	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
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	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	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	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
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	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	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	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
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	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	184	0	0
Native Pasture	8,376	0	0	0	1	0	0	0	0	0	0	0	0	0	225	1	1,079	121	103	8	1,537	27	13	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	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	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
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	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
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	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
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	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
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	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	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	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	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	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	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	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
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	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
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	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	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	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
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	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	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	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
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	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	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	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	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
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	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	31	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-45. Direct Effects on Wildlife and Plants–Alternative 7 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: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Mid Tidal Brackish Marsh	Low Tidal Brackish Marsh	Intertidal mudflat	Subtidal 1	Subtidal 2	Subtidal 3	Delta: Ecotone	Intertidal mudflat	Tidal freshwater marsh	Subtidal 1	Subtidal 2	Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: 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	0	1,349	564	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	0	74	241	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	0	94	71	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	0	1,517	948	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	0	3	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	0	3	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	0	58	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	0	31	15	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	0	89	15	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	0	1	0	2	69	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	0	1	0	0	0	936	50	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	0	1	0	1	0	938	120	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	0	26	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	0	7	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	0	33	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	0	257	567	1	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	0	257	567	1	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	0	13	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	0	13	12,285	478	1,402
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

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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	0	8	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	0	8	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	0	12	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	0	12	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
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	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	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	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	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	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	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	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	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	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	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	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	0	204	0	0

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Table 12E-46. Direct Effects on Wildlife and Plants – Alternative 7 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: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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
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
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	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	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	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	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	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	401	0	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	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	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	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	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	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	35	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	14	8	9	0	36	0	4	9	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	89	0	128
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	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	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	0	300	1,350	4	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	0	300	1,350	4	6,295	138	677
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	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
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	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	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	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	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
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
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
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
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
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	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

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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	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	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
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	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	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
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	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	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	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
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	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	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	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
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	375	0	0

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Alternative 8

Table 12E-47. Direct Effects on Natural Communities–Alternative 8 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: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	11	0	0	0	14	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
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
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	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	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	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	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	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	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	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	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	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
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	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	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
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
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	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	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	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
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	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
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	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
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	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
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	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	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	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
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	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	70	0	0
Native Pasture	8,376	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	68	41	25	0	134	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	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	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
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
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
Rice	10,259	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	52	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
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	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
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	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	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
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
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
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	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
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
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	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
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	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	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
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
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
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
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
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
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	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	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	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	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
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	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

		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)
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
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	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

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Table 12E-48. Direct Effects on Natural Communities–Alternative 8 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: Permanent (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	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	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	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	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	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	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	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
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	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	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	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
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	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	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	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	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
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	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	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
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
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	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	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	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	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	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
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	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	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	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
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	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	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	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
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	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	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	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	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	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
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	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
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	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
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	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
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	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	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	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	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	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	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	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
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	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
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	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	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	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
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	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	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	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
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	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	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	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	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
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	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	31	0	0

Natural Community	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline/Conveyance Facilities Construction: Permanent (Acres)	CM1: Permanent Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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
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

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Table 12E-49. 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: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	0	1,349	564	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	0	74	241	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	0	94	71	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	0	1,517	948	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	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	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	0	58	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	0	31	15	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	0	89	15	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	0	1	0	2	69	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	0	1	0	0	0	936	50	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	0	1	0	1	0	938	120	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	0	26	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	0	7	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	0	33	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	2	0	709	852	363	26	1,951	0	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	2	0	709	852	363	26	1,951	0	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	1,054	0	0	13	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	1,054	0	0	13	12,285	478	1,402
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

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: Temporary (Acres)
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	182	0	21	0	0	0	203	0	0	0	0	0	0	0	12	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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
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	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	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	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	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	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	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
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	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	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	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	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
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	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	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	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
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	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	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	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	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	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	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	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	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	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	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	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	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	0	204	0	0

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1 **Table 12E-50. 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 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																															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	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	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	124
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	124
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	1,154	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	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	0	300	1,350	4	6,295	138	677
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	125
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	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	2,012	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	2,318
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	99
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	2,417
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	467
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	44	35	2,196	151	215
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	80
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	885
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	1	1	0	0	0	0	0	0	1,666	0	10
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	76
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	1,733
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	492
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	1,470
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	1,961
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	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	108
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	118
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	138
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	2,265
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	2,403
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	78
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	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	125

Resource	Total Existing Modeled Habitat in the Plan Area (Acres)	CM1 Water Facilities and Operation: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Temporary (Borrow and Spoil) (Acres)	Temporary (Acres)
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	2	3	0	0	0	0	0	0	36	0	22
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	47
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	27	24	0	0	0	0	0	35	1,781	6	158
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	22
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	472
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	17
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	32	21	0	0	0	0	0	0	163	0	122
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	77
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	301
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	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	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	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	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	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	43	35	0	0	0	0	0	0	726	0	136
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	177
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	313
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	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	14
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	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	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	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: Tunnel/Pipeline Facilities Construction: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	*Mid Tidal Brackish Marsh*	*Low Tidal Brackish Marsh*	*Intertidal mudflat*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	Delta: *Ecotone*	*Intertidal mudflat*	*Tidal freshwater marsh*	*Subtidal 1*	*Subtidal 2*	*Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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

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Alternative 9

Table 12E-51. 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: Permanent (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	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)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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

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)
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
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	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

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Table 12E-52. Direct Effects on Natural Communities–Alternative 9 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: Separate Corridors Impacts: Permanent (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Permanent Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: 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	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	0	46	181	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

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)
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
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

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1 **Table 12E-53. 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: Permanent (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Permanent - Reusable Tunnel Material (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Temporary (Borrow and Spoil) (Acres)	CM1 Water Facilities and Operation: Separate Corridors Impacts: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Temporary (Acres)	Suisun Marsh: *High Tidal Brackish Marsh*	Suisun Marsh: *Mid Tidal Brackish Marsh*	Suisun Marsh: *Low Tidal Brackish Marsh*	Suisun Marsh: *Intertidal mudflat*	Suisun Marsh: *Subtidal 1*	Suisun Marsh: *Subtidal 2*	Suisun Marsh: *Subtidal 3*	Delta: *Ecotone*	Delta: *Intertidal mudflat*	Delta: *Tidal freshwater marsh*	Delta: *Subtidal 1*	Delta: *Subtidal 2*	Delta: *Subtidal 3*	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	0	1	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	0	1	0	1	0	938	120	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	0	257	567	1	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	0	257	567	1	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	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	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	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	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: Separate Corridors Impacts: Permanent (Acres)	CM1: Permanent - Reusable Tunnel Material (Acres)	CM1: Temporary (Borrow and Spoil) (Acres)	CM1: Temporary (Acres)	CM2 Yolo Bypass Fisheries Enhancement: Fremont Weir and Yolo Bypass Improvements: Permanent (Acres)	CM2: Temporary (Acres)	Suisun Marsh: High Tidal Brackish Marsh	Suisun Marsh: Mid Tidal Brackish Marsh	Suisun Marsh: Low Tidal Brackish Marsh	Suisun Marsh: Intertidal mudflat	Suisun Marsh: Subtidal 1	Suisun Marsh: Subtidal 2	Suisun Marsh: Subtidal 3	Delta: Ecotone	Delta: Intertidal mudflat	Delta: Tidal freshwater marsh	Delta: Subtidal 1	Delta: Subtidal 2	Delta: Subtidal 3	CM4 Tidal Natural Communities Restoration: Construction and Inundation: Permanent (Acres)	CM4: Conversion (Acres)	CM5 Seasonally Inundated Floodplain Restoration: Levee Construction: Permanent (Acres)	CM5: Temporary (Acres)	CM7 Riparian Natural Community Restoration: Riparian Restoration as Part of Tidal Natural Communities Restoration: Permanent (Acres)	CM7: Riparian Restoration as Part of Seasonal Floodplain Restoration: Permanent (Acres)	CM8 Grassland Restoration: Permanent (Acres)	CM10 Nontidal Marsh Natural Community Restoration: Construction and Inundation: Permanent (Acres)	CM11 Natural Community Enhancement and Management: Construction of Recreational-Related Facilities: Permanent (Acres)	CM18 Conservation Hatcheries: Construction: Permanent (Acres)	Maximum Allowable Habitat Loss: Permanent (Acres)	Maximum Allowable Habitat Loss: Temporary (Borrow and Spoil) (Acres)	Maximum Allowable Habitat Loss: 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	0	83	1	2	1	87	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	0	199	5	2	1	206	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	0	5	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	0	282	6	4	2	299	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	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	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	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	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	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	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	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	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	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	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	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	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
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	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	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
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	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	292	35	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	292	35	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	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	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	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
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	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	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
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	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	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
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	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	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
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	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	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
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	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	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
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	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	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
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	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	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
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
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	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	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	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	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	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
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	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	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	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	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
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	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	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	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
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	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	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	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
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	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	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	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
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	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	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	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
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	201	0	0

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Table 12E-54. Direct Effects on Wildlife and Plants – Alternative 9 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		
		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)
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	0	1	0	1,467	514	614	117	2,713	0	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	0	1	0	1,508	514	614	117	2,754	0	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	0	477	23	25	6	545	0	28	21	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	0	477	23	25	6	545	0	28	21	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	56	0	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
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

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)
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	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	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
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	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	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	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
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	372	0	0

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