



Table 4-9. Maximum Extent of Permanent Direct Impacts on Modeled Covered Species Habitat Types and Known Occurrences by CAZ and UPA (acres unless noted otherwise in the first column)

Covered Species Modeled or Mapped Habitat Type Occurrences	Existing Inside UPAs	Existing Outside UPAs	Existing in Plan Area	Modeled Habitat and Occurrences Removed by CAZ and UPA																										Total Removed	Percent Remaining					
				Cascade Foothills CAZ						Sierra Foothills CAZ						Northern Orchards CAZ						Southern Orchards CAZ						Basin CAZ								
				Outside UPAs	Chico	State Route-99	Foothill Area	Neal Road Drop Off & Recycling Facility	Total	Outside UPAs	Honcut	Oroville	Bangor	Foothill Area	Total	Outside UPAs	Chico	Chico Wastewater Treatment Plant	Dayton	Durham	Nord	State Route-99	Total	Outside UPAs	Gridley-Biggs	Gridley Wastewater Treatment Plant	Oroville	Total	Outside UPAs			Nelson	Richvale	State Route-99	Total	Sacramento River CAZ
<i>Conservancy Fairy Shrimp</i> <sup>13</sup>	9	8	17	2	0	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	3	82.4	
No. of Occurrences	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0		
<i>Vernal Pool Fairy Shrimp</i>	4,869	29,372	34,241	37	186	54	5	141	423	15	0	901	0	0	916	51	0	0	0	0	0	9	60	0	0	0	0	0	6	0	0	17	23	0	1,422	95.8
Habitat <sup>12</sup>	21	8	29	1	0	0	0	0	1	0	0	15	0	0	15	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	17	41.4	
No. of Occurrences	504	1,704	2,208	2	92	0	0	0	94	0	0	0	0	0	15	47	0	0	0	0	0	62	0	0	0	0	0	0	0	0	20	20	0	176	92.0	
Habitat	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0	
No. of Occurrences	0	2	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	100.0		
No. of Occurrences	4,869	29,372	34,241	37	186	54	5	141	423	15	0	901	0	0	916	51	0	0	0	0	0	9	60	0	0	0	0	6	0	0	17	23	0	1,422	95.8	
Habitat <sup>12</sup>	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0	
No. of Occurrences	4,869	29,372	34,241	37	186	54	5	141	423	15	0	901	0	0	916	51	0	0	0	0	0	9	60	0	0	0	0	6	0	0	17	23	0	1,422	95.8	
Habitat <sup>12</sup>	3	14	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	0	0	0	0	0	0	100.0	
No. of Occurrences	4,869	29,372	34,241	37	186	54	5	141	423	15	0	901	0	0	916	51	0	0	0	0	0	9	60	0	0	0	0	6	0	0	17	23	0	1,422	95.8	
Habitat <sup>12</sup>	2	30	32	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	96.9		
No. of Occurrences	2,511	14,239	16,750	14	282	0	0	7	302	0	0	0	0	0	18	0	0	0	0	0	0	18	0	0	0	0	12	0	0	0	12	0	331	98.0		
Primary Habitat	1,960	4,399	6,360	1	866	0	0	291	1,157	0	0	0	0	0	2	0	0	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	1,161	81.7		
Secondary Habitat	4,472	18,638	23,110	15	1,147	0	0	297	1,459	0	0	0	0	0	19	0	0	0	0	0	3	22	0	0	0	0	12	0	0	0	12	0	1,493	93.5		
Subtotal	Not applicable <sup>15</sup>																																			
No. of Occurrences	6	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0		
No. of Occurrences	4,869	29,372	34,241	37	186	54	5	141	423	15	0	901	0	0	916	51	0	0	0	0	9	60	0	0	0	0	6	0	0	17	23	0	1,422	95.8		
Habitat <sup>12</sup>	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0	
No. of Occurrences	4,869	29,372	34,241	37	186	54	5	141	423	15	0	901	0	0	916	51	0	0	0	0	9	60	0	0	0	0	6	0	0	17	23	0	1,422	95.8		
Habitat <sup>12</sup>	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0	
No. of Occurrences	4,869	29,372	34,241	37	186	54	5	141	423	15	0	901	0	0	916	51	0	0	0	0	9	60	0	0	0	0	6	0	0	17	23	0	1,422	95.8		
Habitat <sup>12</sup>	2	3	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	100.0	
No. of Occurrences	5	2	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	0	0	0	0	0	0	0	100.0	
No. of Occurrences	8,341	28,481	36,823	0	1,967	0	310	360	2,638	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,638	92.8		
Habitat	93	34	127	0	3	0	2	2	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8	93.7			
No. of Occurrences	452	14,545	14,998	9	1	59	38	31	137	0	0	0	0	0	0	0	0	0	0	0	31	31	0	0	0	0	57	0	0	11	67	0	236	98.4		
Habitat	0	18	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	100.0		
No. of Occurrences	4,869	29,372	34,241	37	186	54	5	141	423	15	0	901	0	0	916	51	0	0	0	0	9	60	0	0	0	0	6	0	0	17	23	0	1,422	95.8		
Habitat <sup>12</sup>	1	4	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	100.0	
No. of Occurrences																																				

Note: Discrepancies in totals are due to rounding.  
<sup>1</sup> 140 acres of permanent direct effects due to borrow sites from Caltrans roadway construction projects in the Cascade and Sierras CAZs outside of UPAs and rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>2</sup> Removal of tricolored blackbird nesting colonies that have been active within the last five years will be avoided.  
<sup>3</sup> 100 acres of permanent direct effects due to borrow sites from Caltrans roadway construction projects in the Cascade and Sierras CAZs outside of UPAs and rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>4</sup> 40 acres of permanent direct effects due to rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>5</sup> Habitat for this species has not been modeled. A description of this species' habitat requirements is provided in Appendix A, Covered Species Accounts.  
<sup>6</sup> 40 acres of permanent direct effects due to rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>7</sup> 100 acres of permanent direct effects due to borrow sites from Caltrans roadway construction projects in the Cascade and Sierras CAZs outside of UPAs and rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>8</sup> 140 acres of permanent direct effects due to borrow sites from Caltrans roadway construction projects in the Cascade and Sierras CAZs outside of UPAs and rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>9</sup> 40 acres of permanent direct effects due to rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>10</sup> 40 acres of permanent direct effects due to rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>11</sup> 20 acres of permanent direct effects due to rerouting existing canals in the Basin CAZ outside of UPAs are included.  
<sup>12</sup> The difference in impact between the vernal pool species habitat models and the grassland with vernal swale complex land cover type is that individually mapped large vernal pools outside of grassland with vernal swale complex are included in the vernal pool species habitat models.  
<sup>13</sup> Habitat for this species has not been modeled. A description of this species' habitat requirements is provided in Appendix A, Covered Species Accounts.  
<sup>14</sup> Habitat acreage shown is mapped based on aerial imagery and soil survey maps.  
<sup>15</sup> See Table 4-10.

Gray-shaded cells - Values in these cells are less than the total amount of GIS-generated overlap between modeled habitats and the covered activities effects footprint data layer. These acreage values were adjusted down to reflect the likely level of impact for these specific modeled habitat types due to the likelihood of projects avoiding impacts and are therefore less than the total amount of impact that was generated from the GIS analyses. Covered activities are authorized only to the amount of modeled habitat acreage removal (permanent direct effects) identified in this table and will avoid impacts on the remaining acreage of these modeled habitat types. The GIS footprint of permanent direct effects on known tricolored blackbird nesting colonies is 1 colony and actual permanent direct effects are 0. The GIS footprint of permanent direct effects on modeled yellow-breasted chat nesting and foraging habitat is 980 acres and actual permanent direct effects are 278 acres. The GIS footprint of permanent direct effects on modeled yellow-breasted chat nesting and foraging habitat (known use area) is 48 acres and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled bank swallow nesting habitat is 9.1 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled American peregrine falcon nesting habitat and known nest sites is 9 acres and 1 site, respectively, and there are no actual permanent direct effects on either. The GIS footprint of permanent direct effects on modeled Swainson's hawk nesting habitat is 712 acres and actual permanent direct effects are 315 acres. The GIS footprint of permanent direct effects on modeled white-tailed kite nesting habitat is 3,079 acres and actual permanent direct effects are 2,598 acres. The GIS footprint of permanent direct effects on modeled bald eagle nesting habitat is 2,784 acres and actual permanent direct effects are 2,708 acres. The GIS footprint of permanent direct effects on modeled bald eagle year-round foraging habitat is 85 acres and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled giant garter snake breeding and movement habitat; managed and emergent wetlands, willow scrub is 56 acres and actual permanent direct effects are 54 acres. The GIS footprint of permanent direct effects on modeled western pond turtle aquatic habitat is 81 acres and actual permanent direct effects are 35 acres. The GIS footprint of permanent direct effects on modeled Central Valley steelhead adult migration-juvenile rearing and migration habitat is 0.4 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled Central Valley steelhead non-natal juvenile rearing habitat is 0.04 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled Central Valley spring-run Chinook salmon adult migration-juvenile rearing and migration habitat is 0.5 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled Central Valley spring-run Chinook salmon adult spawning and migration-juvenile rearing and migration habitat is 0.1 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled Central Valley fall/late fall-run Chinook salmon adult spawning and migration-juvenile rearing and migration habitat is 0.1 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled Central Valley spring-run Chinook salmon non-natal juvenile rearing habitat is 0.6 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled Sacramento splittail rearing, migration, and potential spawning habitat is 0.1 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled green sturgeon adult migration and potential spawning habitat is 1.5 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled river lamprey spawning, rearing, and migration habitat is 1.5 linear miles and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on modeled valley elderberry longhorn beetle habitat is 3,360 acres and actual permanent direct effects are 2,280 acres. The GIS footprint of permanent direct effects on vernal pool tadpole shrimp, vernal pool fairy shrimp, Hoovers' spurge, Ahart's dwarf rush, Red Bluff dwarf rush, hairy orcutt grass, slender orcutt grass, Ahart's paronychia, and Greene's tuctoria is 1,963 acres and there are 1,422 acres of actual permanent direct effects. The GIS footprint of permanent direct effects on Conservancy fairy shrimp occurrences is 2 and there are no actual permanent direct effects. The GIS footprint of permanent direct effects on veiny monardella occurrences is 6 and there are no actual permanent direct effects.