

Appendix 1. Landscape attributes used for categorical scoring of crossing points in both linkage areas.

Attribute	Score Guide
1. Evidence of mountain lion use	
Confirmed crossing or roadkill, or close approach both sides	1
Approach within 100 meters (close approach) - either side	0.66
Approach within 500 meters (medium approach) - either side	0.33
No known approaches	0
2. Landscape pattern - broad scale <i>What is the overall landscape connectivity like, i.e., can animals effectively reach the vicinity of the crossing point?</i>	
<i>Both sides have good connectivity</i>	1
<i>One side has good connectivity</i>	0.5
<i>Neither side has good connectivity</i>	0
3. Landscape pattern - fine scale <i>Is the landscape in the immediate vicinity of the crossing conducive to wildlife movement - all the way to the crossing structure or freeway edge itself?</i>	
Both sides conducive to animals getting to and through the crossing	1
One side conducive to animals getting to and through the crossing	0.5
Neither side conducive	0
4. Land securement - broad scale <i>Is land generally continuously protected in larger blocks within 1 km of site?</i>	
Both sides protected	1
One side protected	0.5
<i>Neither side protected</i>	0
5. Land securement - fine scale <i>Is land protected leading to the crossing point from larger blocks of habitat, and at the crossing?</i>	
Both sides protected	1
One side protected	0.5
Neither side protected	0

Appendix 2. Results of trail camera monitoring 2015 - 2016.

Site Name	General area	Mountain Lion	Bobcat	Coyote	Deer	Feral Pig	Fox	Striped Skunk	Spotted Skunk	Opossum	Raccoon	Ringtail	Ground Squirrel	Gray Squirrel	Woodrat	Mouse	Cottontail	Brush rabbit	Jack-rabbit	Quail	Turkey	Other bird	Other animals	Total camera nights	
WGO1	Wilderness Gardens	2	1	49	1	0	0	0	0	0	3	0	5	0	0	0	0	0	0	0	0	10	94	1	557
WGO2	Wilderness Gardens	0	5	17	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136
WGO3	Wilderness Gardens	0	19	47	1	0	3	0	0	0	2	0	0	0	0	0	0	7	0	0	0	0	0	0	602
WGO4	Wilderness Gardens	3	96	14	0	0	1	0	0	0	5	0	0	0	2	0	0	0	0	0	0	28	0	532	
WGO5	Wilderness Gardens	6	69	80	2	0	0	0	0	0	5	0	0	0	0	0	0	2	0	0	2	0	1	543	
WGO6	Wilderness Gardens	0	12	47	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	124	
WGO7	Wilderness Gardens	0	53	21	1	0	2	0	0	0	0	0	0	0	8	0	0	143	0	0	0	10	1	485	
WGO8	Wilderness Gardens	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	202
WGO9	Wilderness Gardens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOO1	Mount Olympus	0	46	155	0	0	19	3	0	0	1	0	0	0	0	0	0	0	0	0	0	10	4	329	
MOO2	Mount Olympus	0	15	84	0	0	7	2	0	0	6	0	0	1	0	0	3	21	0	0	0	35	2	236	
MOO3	Mount Olympus	0	23	51	0	0	7	2	0	0	4	0	0	0	0	0	0	0	0	0	0	33	0	266	
MOO4	Mount Olympus	0	0	1	0	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	101
MOO5	Mount Olympus	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101
PLCR01	Plaiasted Creek	0	14	23	20	0	7	3	0	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	393
PLCR02	Plaiasted Creek	2	19	6	72	0	64	24	0	6	4	0	0	0	0	0	0	0	0	6	2	87	1	431	
PLCR03	Plaiasted Creek	0	4	1	0	0	0	3	1	16	102	0	0	0	12	0	0	0	0	0	2	2	2	229	
PLCR04	Plaiasted Creek	3	2	15	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19	1	325	
AroubaRd1	Arouba Rd	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	70	
AroubaRd2	Arouba Rd	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
SLR01	San Luis Rey	0	26	121	0	0	0	10	0	9	153	0	1	0	2	0	20	114	0	0	0	5	10	356	
SLR02	San Luis Rey	0	1	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	394	
PAUM01	Pauma Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAUM02	Pauma Creek	45	20	7	8	0	54	120	0	0	27	0	0	0	2	0	0	0	0	22	0	4	6	371	
PAUM03	Pauma Creek	40	3	3	27	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	434
PAUM04	Pauma Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PALA01	Pala Creek	0	5	70	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	203
PALA02	Pala Creek	1	8	161	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	9	0	0	463
PALA03	Pala Creek	0	2	27	0	0	1	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	121
PALA04	Pala Creek	0	0	2	24	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	228
PALA05	Pala Creek	0	5	124	2	0	5	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	1	0	256
PALA06	Pala Draw	0	0	4	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	17
PALA07	Pala Draw	1	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
LIRD01	Lilac Road	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208
LIRD02	Lilac Road	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	217
LIRD03	Lilac Road	0	2	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	217
HH1	Hellhole Canyon	0	0	1	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
HH2	Hellhole Canyon	0	0	0	164	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	69
HH3	Hellhole Canyon	0	5	166	0	0	0	3	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	69
VM1	Volcan Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VM2	Volcan Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VM3	Volcan Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VM4	Volcan Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Star1	near Vail Lake	0	2	2	33	0	0	0	1	1	0	0	0	0	24	0	0	0	0	0	0	1	0	0	170
Star2	near Vail Lake	15	19	43	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211
Star3	near Vail Lake	0	0	8	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211
Star4	near Vail Lake	0	2	0	87	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	211
Star5	near Vail Lake	0	6	7	30	0	2	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	1	0	114
Star6	near Vail Lake	0	58	162	176	0	0	4	0	0	0	0	0	0	0	0	5	0	2	39	0	10	0	0	211
BOCA1	Boden Canyon	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
BOCA2	Boden Canyon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
BOCA3	Boden Canyon	0	1	0	1	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
DR1	Daley Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
DR2	Daley Ranch	0	3	70	5	0	0	0	0	0	37	0	0	0	19	0	20	0	0	0	0	0	0	0	111
DR3	Daley Ranch	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	6	0	44
DR4	Daley Ranch	0	5	92	0	0	16	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	111
FREY01	Frey Creek	4	20	42	2	0	2	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	138
PANG01	Pechanga Creek	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	23	0	0	0	0	3	1	82	
PANG02	Pechanga Creek	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	82
PANG03	Pechanga Creek	0	4	15	0	0	0	0	0	1	4	0	0	1	0	0	80	0	0	0	0	23	0	0	82
PANG04	Pechanga Creek	0	2	5	0	0	0	2	0	0	0	0	3	0	8	0	8	0	0	0	0	55	6	82	
PANG05	Pechanga Creek	0	0	0	0	0	0	0	0	1	1	0	0	0	8	0	0	0	0	0	0	1	0	0	78
PANG06	Pechanga Creek	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	82
PANG07	Pechanga Creek	0	0	8	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	1	0	29
PANG08	Pechanga Creek	0	1	21	0	0	0	0	0	0	0	0	0	14	1	1	9	0	0	0	0	3	0	0	82
TEME1	Temecula Escarpmer	0	4	6	0	0	0	0	0	0	0	0	3	0	2	28	6	0	0	0	0	30	1	58	
TEME2	Temecula Escarpmer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	58	
TEME3	Temecula Escarpmer	0	3	18	0	0	0	0	0	0	0	0	0	0	10	29	0	0	0	0	0	37	2	58	
TEME4	Temecula Escarpmer	0	0	5	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	58
TEME5	Temecula Escarpmer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	5	0	13	1	0	51	
TEME6	Temecula Escarpmer	0	0	0	0	0	0	0	0	0	0	1	0	0	0	31	0	0	32	0	32	1	0	58	
TEME7	Temecula Escarpmer	0	0	7	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	58
Total Camera Events		122	580	1864	8																				

Appendix 3 - Results of trail camera monitoring 2013 - 2014.

Site Name	General area	Mountain Lion	Bobcat	Coyote	Deer	Feral Pig	Fox	Striped Skunk	Spotted Skunk	Opossum	Raccoon	Ringtail	Ground Squirrel	Gray Squirrel	Woodrat	Mouse	Cottontail	Brush rabbit	Jackrabbit	Quail	Turkey	Other bird	Other animals	Dog	Cat	Human on foot	Mtn Biker	Equestrian	Vehicle	Total camera nights
BL1	Barrett Lake 1	2	1	10	121	0	4	9	0	15	24	1	0	0	0	0	58	0	0	1	11	1	4	0	0	2	0	0	139	
BO1	Boulder Oaks	4	0	3	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	433	
BO2	Boulder Oaks	6	0	8	35	0	77	4	0	0	0	0	0	0	0	3	0	0	0	0	160	0	19	0	3	0	0	533		
BO3	Boulder Oaks	9	34	73	95	0	47	1	0	0	0	10	0	0	0	19	0	0	4	1	6	0	19	0	21	2	6	85	562	
CC1	Canada de San Vicente	0	15	0	45	0	0	4	0	6	0	0	5	0	0	1	0	0	0	8	5	0	0	1	0	0	0	0	448	
CC2	Canada de San Vicente	13	20	12	143	0	2	18	0	14	8	0	0	0	0	2	0	0	0	4	1	0	1	0	6	0	0	652		
CC3	Canada de San Vicente	2	4	6	519	0	34	8	0	86	0	0	191	0	0	3	0	2	112	35	16	0	0	0	0	1	0	701		
CC4	Canada de San Vicente	6	53	501	198	0	0	1	0	1	2	0	201	0	0	0	33	0	0	365	582	67	0	2	0	19	0	242	691	
CC7a	Canada de San Vicente	4	23	21	5	0	0	1	0	14	2	1	43	0	0	0	79	0	0	21	1	13	0	0	0	0	0	0	197	
CC7b	Canada de San Vicente	5	6	18	25	0	0	0	0	4	0	3	0	0	0	9	0	0	0	16	386	1	4	0	133	0	0	54	658	
CC8	Canada de San Vicente	1	6	3	54	0	1	2	0	6	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0	0	0	0	471	
CC9	Canada de San Vicente	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CC10	Canada de San Vicente	0	0	1	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	
CER1	Crestridge Ecological Reserve	0	15	1086	2	0	54	0	0	3	0	0	0	1	0	9	0	0	0	34	0	31	0	11	5	0	1	343		
CER2	Crestridge Ecological Reserve	0	0	455	8	0	12	0	0	0	0	0	0	1	0	85	0	1	1	0	13	2	26	0	4	1	0	307		
CER3	Crestridge Ecological Reserve	0	9	29	0	0	91	9	1	0	13	0	0	2	0	5	0	0	0	16	0	15	0	0	0	0	0	343		
CER4	Crestridge Ecological Reserve	0	0	11	1	0	18	1	0	0	23	0	1	0	0	3	0	9	0	0	36	3	0	0	0	0	0	0	300	
CTT1	San Diego Country Estates	24	14	37	4	0	32	0	0	8	0	0	0	0	0	15	0	1	0	0	1	13	12	0	7	0	0	3	487	
CTT2	San Diego Country Estates	0	19	3	9	6	98	0	0	0	0	0	0	0	21	13	0	6	0	3	7	0	0	0	0	0	0	0	451	
CTT3	San Diego Country Estates	0	2	2	5	0	4	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	556	
DRCN1	Deer Canyon 1	0	241	138	605	0	1	0	1	0	11	0	0	3	0	0	0	0	2	0	0	0	51	0	245	629	0	0	259	
DRCN2	Deer Canyon 2	0	7	37	189	0	0	0	2	0	0	1	0	19	1	16	0	0	6	0	0	0	3	0	0	0	0	0	280	
DRCN3	Deer Canyon 3	0	33	10	41	0	0	0	0	2	10	0	0	0	33	0	1	0	0	0	18	0	0	0	0	0	0	0	280	
DESC1	Sweetwater River S of Descanso	3	21	37	84	0	18	2	0	3	100	0	14	0	0	3	0	0	0	0	410	0	6	0	7	0	0	310		
DFG1	Rancho Jamul	0	1	42	216	0	0	0	0	0	4	0	0	0	0	63	0	32	0	1	6	0	0	10	0	0	0	562		
DC1	Dulzera Creek	0	12	51	283	0	0	0	0	14	5	0	10	0	4	0	8	0	1	2	0	0	1	0	2	2	0	0	243	
DC2-A	Dulzera Creek	0	0	0	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	
DC2-B	Dulzera Creek	0	0	9	14	0	0	0	0	1	3	0	3	0	0	0	7	0	0	0	3	1	1	0	21	0	0	0	304	
ECC1	Chocolate Canyon	2	2	46	509	5	14	0	0	4	0	12	0	4	0	2	0	0	0	6	4	0	5	0	5	0	0	1	819	
ECC2	Chocolate Canyon	0	12	29	8	0	9	0	0	1	27	0	2	0	1	0	0	0	0	0	31	0	3	0	4	0	0	0	600	
ECC3	Chocolate Canyon	0	13	62	240	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	30	0	0	0	21	299	
HC1	Hollenbeck Cyn	0	0	9	0	0	0	2	0	7	0	0	14	0	18	0	55	0	0	0	2	2	5	0	3	0	0	0	378	
HC2	Hollenbeck Cyn	1	1	4	14	0	2	0	0	1	0	2	0	0	0	3	0	0	0	0	1	0	0	1	0	0	0	0	327	
HS1	Rancho Jamul	0	2	330	522	0	6	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	7	0	31	0	0	4	684	
HS2	Rancho Jamul	0	0	0	57	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	
HW94-1	Rancho Jamul	0	0	14	0	0	0	0	0	0	0	0	0	0	0	44	0	0	34	0	18	0	0	0	2	0	0	0	451	
HWY94-2	Rancho Jamul	0	0	31	0	0	0	1	0	1	16	0	0	15	0	1	0	0	0	1	0	0	0	4	0	0	0	0	384	
PQ1	Penasquitos Canyon	0	6	29	123	0	0	18	2	8	131	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	214	
PQ2	Penasquitos Canyon	0	20	112	47	0	0	1	0	57	331	0	0	3	0	14	0	0	0	12	0	98	0	726	607	4	0	0	205	
PQ3	Penasquitos Canyon	0	80	13	173	0	0	0	0	0	35	0	0	2	0	2	0	0	24	0	1	0	2	0	52	0	0	0	214	
PV 1	Pamo Valley	1	25	35	138	0	5	2	0	2	1	0	1	0	0	0	0	0	0	14	2	233	2	0	36	0	0	0	389	
SCC-1	Sloane Canyon	1	2	36	71	0	119	47	3	139	119	9	48	36	1	0	0	0	0	7	0	33	3	47	1	33	3	0	2	658
SCC-3	Sloane Canyon	2	0	15	24	0	9	2	0	0	2	0	0	2	1	0	0	0	0	0	0	3	1	10	0	1	0	0	674	
SCC-4	Sloane Canyon	0	2	43	15	0	12	0	0	6	34	0	1	2	0	0	0	0	0	0	0	66	2	79	0	84	0	0	670	
SR1	Sutherland Reserve	5	15	0	2	0	11	1	0	0	38	0	6	0	0	0	0	0	0	8	1	1	0	0	5	0	0	0	653	
SR2	Sutherland Reserve	1	26	2	302	0	24	1	0	1	1	0	2	0	0	0	0	0	0	44	0	16	1	0	14	0	0	0	656	
SR3	Sutherland Reserve	1	42	54	53	0	7	0	0	1	2	0	64	0	0	0	1	0	2	0	7	7	0	0	32	0	0	0	617	
SR4	Sutherland Reserve	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	
SR5	Sutherland Reserve	13	17	0	219	0	9	0	0	28	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	0	0	0	555	
SVC2	San Vicente	0	1	16	54	0	4	0	0	0	0	12	0	0	0	13	0	0	1	0	14	0	0	2	0	0	0	0	462	
SVC4	San Vicente	0	0	14	8	0	0	0	0	0	0	0	0	0	2	0	9	0	0	1	0	8	0	0	2	0	0	0	90	
SVC5	San Vicente	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SVC6	San Vicente	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	64	
LR1	Loveland Reservoir	0	15	9	4	0	31	10	0	0	3	0	15	0	25	0	12	0	0	0	0	3	5	0	0	0	0	0	322	
LR2	Loveland Reservoir	3	7	30	443	0	57	2	0	3	0	0	0	1	0	86	0	0	0	0	2	4	0	0	7	0	0	0	510	
LR4	Loveland Reservoir	31	3	20	98	0	11	3	0	0	0	0	17	0	0	0	10	0	0	10	3	3	0	1	2	0	0	0	301	
SW 1	Sweetwater Canyon 1	0	5	140	0	0	0	0	0	2	71	0	8	0	4	0	1	0	0	0	1	0	11	20	55	2	0	0	240	
SYC1	Sycamore Cyn	0	11	43	27	0	1	0	0	0	0	3	0	0	0	2	0	0	0	1	0	0	219	0	984	83	68	0	451	
SYC2	Sycamore Cyn	0	3	26	34	0	0	0	0	2	0	4	0	1	0	5	0	0	0	1	0	0	0	4	0	0	0	0	452	
SYC3	Sycamore Cyn	1	10	313	44	0	2	0	0	5	0	3	0	0	0	19	0	0	3	6	0	2	0	0	2	0	2	0	400	
SYC4	Sycamore Cyn	0	7	19	70	0	0	0	0	0	1	0	0	0	0	14	0	3	0	0	1	0	1	0	5	1	0	0	447	
DESC 2		0	0	23	0	0	4	55	39	0	0	1	0																	