

CWHR HABITAT ELEMENT CHECK LIST

Point 56B-71

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.	I	SOIL, GRAVELLY - Gravel 3-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) 1b11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
<del>I</del>	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	I	SOIL, SANDY - Sand 0.5-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	I	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag <3m (10') high
O	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag <3m (10') high
I	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill	I	NUTS - Hard-shelled, dry fruit		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
O	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	O	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	O	TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
O	FRUITS - Pulpy fruit	I	ROOTS I/O		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	O	TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE	O	TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants	O	SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface	I	SEEDS - Other than listed above	O	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL	O	SHRUB/WATER - Interface	O	WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.	O	WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt, flows < .5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
O	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF



MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10-1-18

Sample Crew: SA, DL, AL, LP, TC, DL

Plot Number: 7A

Location: Quail Lake

SGB = SGB-1A (Red dot)

Visual estimate before sampling; CWHR habitat type: SGB

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above buttess)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0"	S	Sparse cover	10 0-24 9% Shrub, 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1 5-19 9" (PO) 1 5-5 9" (JT)	2 0'-9 9'	P	Open cover	25 0-39 9% Shrub, 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0'-19 9'	M	Mod. cover	40 0-59 9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0'	D	Dense cover	≥ 60 0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1					-	26					
2					-	27					-
3					-	28					
4	ERINAW	M	2	49 in.	+	29					
5						30					
6						31					
7						32					
8						33					
9						34					
10						35					
11						36					
12	ERINAW	M	2	44 in.	+	37					
13						38					
14						39					
15						40					
16	CRY SP.	D	1	5 in.	+	41					
207	CRY SP.	D	1	3 in.	+	42					
18						43					
19						44					
207	ERINAW	M	2	40 in.	+	45					
2122						46					
223						47					
224						48					
225						49					
2						50					

**VEGETATION COVER MEASUREMENT**

17/26 = 65.4%

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =      (# veg. hits/25 or 30) \* 100

CRY = Cryptantha (dried out)  
↳ Stantec sp. list says intermedia

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/1/18 Sample Crew: LP, AL, DL Plot Number: 5689b Location: Quail Lake - east side

Visual estimate before sampling; CWHR habitat type: Rabbit rabbit brush scrub (5689b)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 20.0-99% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dominant

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	grass	D	1	5	+	27	grass	D	1	5	+
2	BRA SP.	D	2	25	+						
3	BRA SP.	D	2	29	+						
4					-						
5	BRA SP.	D	2	29	+						
6	ERI NAU	DM	4	46	+						
7											
8											
9											
10											
11											
12					-						
13					-						
14	grass	D	1	2	+						
15	grass			3	+						
16	grass			3	+						
17	grass			5	+						
18	grass			3	+						
19	grass			4	+						
20	grass			3	+						
21	grass			3	+						
22					-						
23					-						
24					-						
25					-						

brassica

\*

grass = Bromus madritensis \* VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

19/26 = 73%

BRA SP. = Brassica sp  
S M D (dried out, unidentifiable)  
other species → Artemisia dracuncul  
Sambucus nigra sp

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/1/18 Sample Crew: SA, DL, JC Plot Number: 5GB the 2c Location: Quail Lake

Visual estimate before sampling; CWHR habitat type: Rubus Rabbit brush scrub (5GB)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. shrub & bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1					-	26					
2	Erion	Small	1	21	+	27					-
3					-	28					
4					-	29					
5	Erion	Med	2	56	+	30					
6						31					
7						32					
8						33					
9						34					
10	Erion	Med	2	55	+	35					
11						36					
12						37					
13						38					
14						39					
15						40					
16					-	41					
17					-	42					
18	Erion	Med	3	63	+	43					
19						44					
20					+	45					
21						46					
22						47					
23	Erion	Med	2	54	+	48					
24						49					
25					-	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$19/26 = 73\%$

Hi. incans  
Act done 100' West of point up to 30%  
Seethal & ibiting e Junipers out



5GB2 ✓

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	/	LAYER, HERBACEOUS >10% herb understory	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	/	LAYER, SHRUB >10% shrub understory	SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc		LAYER, TREE >10% subcanopy trees	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT		LICHENS	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	/	LITHIC - Rock scatter <10" diam	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border	/	LITTER - Residue <1" in diam	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg within veg area		LOG, LARGE (HOLLOW) >20" diam	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam	SOIL, FRIABLE - Easily crumbled
BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam	SOIL, GRAVELLY - Gravel 3-3" diam
BIRDS, MED - 110-450g (4oz-1lb) lb11111111		LOG, MEDIUM (HOLLOW) 10-20" diam	SOIL, ORGANIC - >20% organic matter (wght)
BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam	SOIL, SALINE - Alkaline soils/veg
BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam	SOIL, SANDY - Sand .05-2mm diam
BRUSH PILE - >1m high, >15m <sup>2</sup> basal area	/	MAMMALS, LARGE - > 2270g (5lb)	SPRINGS-Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc	/	MAMMALS, MED - 110-2270g (4oz-5lb)	SPRINGS, HOT
BURROW - Excavation made by animal	/	MAMMALS, SMALL - < 110g (4oz)	SPRINGS, MINERAL
CAMPGROUND		MOSS - Bryophytes	STEEP SLOPE-Slopes > 50%
CARRION - Any dead animal matter		MUD FLATS- contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface		NECTAR	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity	STUMP (ROTTEN)-snag<3m (10') high
CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform	STUMP (SOUND)-snag<3m (10') high
DUFF - Non-structured decaying mater		NEST ISLAND - Man-made nesting island	TALUS-Slope from rock accumulation
DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.	TIDEPOOLS
EGGS - Any bird or reptile eggs		PACK STATION - with assoc human use	TRANSMISSION LINES
FENCES - Any type	/	PONDS - Permanent, <2ha (5 acres) surf area	TREE LEAVES
FERN - Spore-forming plants with fronds	/	REPTILES	TREE, BROKEN LIVE TOP >11" dbh
FISH		RIPARIAN INCLUSION - Riparian veg (small)	TREE, W/ CAVITIES
FLOWERS	/	RIVERS - Perm., >6m (20') wide in dry season	TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	/	ROOTS	TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc		SALT PONDS - Saline ponds	TREE/SHRUB - Interface
GRAIN - A single, hard cereal seed		SAND DUNE	TREE/WATER - Interface
GRAMINOIDS - Grass-like plants	/	SAP	TREES, FIR - <i>Abies sp</i> >11" dbh
GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	TREES, HARDWOOD - >11" dbh
GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface	TREES, PINE - <i>Pinus sp</i> >11" dbh
INSECTS, FLYING - Insect eaten in air	/	SHRUB/GRASS - Interface	VERNAL POOLS
INSECTS, TERRESTRIAL	/	SHRUB/WATER - Interface	WATER - Any source of free water
INVERTEBRATES	/	SHRUBS - Woody plants, not kecs	WATER, FAST - Unaided, >2ft/sec flows
INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam	WATER, CREATED BODY - Guzzler, well, etc
JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam	WATER, SLOW - Some silt; flows < .5ft/sec
KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam	WATER/AGRICULTURE- Interface
LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter	WHARF

MINE - excavated for minerals

Canal

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/18 Sample Crew: LP Plot Number: 5GB2A Location: lower Quail Canal  
 Visual estimate before sampling; CWHR habitat type: Rubber rabbitbrush (5GB)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above buttes)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1.5"	< 2 0"	S	Sparse cover	10 0-24 9% Shrub; 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1 5-19 9" (PO) 1 5-5 9" (JT)	2 0-9 9"	P	Open cover	25 0-39 9% Shrub, 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0-19 9"	M	Mod cover	40 0-59 9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0"	D	Dense cover	≥ 60 0% all types

*dominant*

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss
1					-	20					-
2	Erodium	D	1	1	+	27					
3	ERINAV	D	4	29	+	28	BROMAD	D	1	10	+
4					+	29					
5					+	30					
6					+	31					
7					+	32	BROMAD	D	1	8	+
8	ERINAV	M	3	38	+	33					
9					+	34	BROMAD	D	1	7	+
10					+	35	BRODIA	D	1	8	+
11					-	36					
12	ERINAV	M	3	27	+	37					
13					+	38					
14					+	39					
15					+	40					
16					+	41	BROMAD	D	1	7	+
17	BROMAD	D	1	6	+	42					
18	ERINAV	M	3	26	+	43					
19	Erodium	D	1	2	+	44					
20					-	45					
21	dead BR			21	+	46	BROMAD	D	1	10	+
22						47	BROMAD	D	1	9	+
23						48	Poa	D	1	9	+
24						49	BROMAD	D	1	8	+
25						50	BROMAD	D	2	12	+

\* BRODIA actually BROTEC

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover = (# veg. hits/25 or 30) \* 100

24/26 = 85%

logger-head shrike  
 crow  
 jackrabbit  
 bear → scat

- Bromus madritensis
- Bromus diandrus
- Bromus tectorum
- Brassica sp.
- Erodium sp. → dried, but likely Erodium cicutarium

decadent  
shrubland

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: LP Plot Number: 5632B Location: lower Quail Canal

Visual estimate before sampling; CWHR habitat type: Rubber rabbitbrush (SGB)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bud)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1.5"	< 2 0"	S	Sparse cover	10.0-24.9% Shrub, 20.0-99% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1 0% (None)	≥ 12 1"	1.5- 19.9"(PO) 1.5-5.9"(JT)	2 0"-9 9"	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0"-19 9"	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0"	D	Dense cover	≥ 60 0% all types

dominant

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	BRODIA	D	1	9	+	20	BROMAD	D	1	5	+
2	Dead PR			30	+	27					
3	BROMAD	D	1	8	+	28					
4	ERINAW	M	2	46	+	29					
5	Erodium	D	1	7	+	30					
6	↓	↓	↓	↓	↓	31					
7	↓	↓	↓	↓	↓	32	BROMAD	D	1	10	+
8	BROMAD	D	1	3	+	33					
9	BROMAD	D	1	6	+	34					
10	BROMAD	D	1	2	+	35					
11					-	36					
12	Croton	D	1	4	+	37					
13	BROMAD	D	1	2	+	38					
14					-	39					
15					-	40					
16	BRODIA	D	1	2	+	41					
17	BROMAD	D	1	2	+	42					
18	POA	D	1	8	+	43					
19	BROMAD	D	1	3	+	44					
20	Dead PR			26	+	45	BROMAD	D	1	12	+
21	↓	↓	↓	↓	↓	46	BROMAD	D	1	9	+
22	↓	↓	↓	↓	↓	47	BROMAD	D	1	9	+
23	BROMAD	D	1	12	+	48					
24	BRODIA	D	1	10	+	49					
25	BROMAD	D	1	4	+	50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

23/26 = 88%

dead PR = ERINAW

same species as (a)  
+ Stephanomeria

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/18 Sample Crew: LP Plot Number: 518<sup>26</sup> Location: Lower Quail Canal

Visual estimate before sampling; CWHR habitat type: Rubber Rabbitbrush (SG-B)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. shoot/bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dom

most shrubs are 100% dead

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht (in ft)	hit or miss
1	BROMAD	D	1	1	+	26	Erodium	D	1	1	+
2					-	27					
3	BROMAD	D	1	3	+	28					
4					-	29					
5	BRODIA	D	1	4	+	30					
6					-	31					
7	Dead RL			33	+	32	BROMAD	D	1	5	+
8	"			"	"	33	BROMAD	D	1	7	+
9	"			"	"	34	BROMAD	D	1	6	+
10	BROMAD	D	1	5	+	35					
11	Erodium	D	1	1	+	36					
12					-	37					
13	Brassica	D	2	32	+	38					
14	BRODIA	D	1	7	+	39					
15	EPILAU	D	2	40	+	40	BROMAD	D	1	11	+
16	"	"	"	"	+	41	BRODIA	D	1	5	+
17	"	"	"	"	+	42					
18					↓	43					
19					↓	44					
20					↓	45	BRODIA	D	1	10	+
21	BROMAD	D	1	7	+	46					
22	BROMAD	D	1	3	+	47					
23	BRODIA	D	1	4	+	48					
24	BROMAD	D	1	2	+	49					
25					-	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover = (# veg. hits/25 or 30) \* 100

21/26 = 81%

checklist w/ WTM60

~~change~~

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP Plot Number: 5GB3A Location: Elderberry Forebay  
AL

Visual estimate before sampling; CWHR habitat type: chap CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WTIR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	ERIO	Y	2	71	+	26	ERIO	M	3	108	+
2	"	"	"	"	"	27					
3	ERIO	Y	2	64	+	28					
4	ERIO	M	3	77	+	29					
5	↓					30					
6	↓					31					
7	↓					32					
8	↓					33					
9	↓					34					
10					-	35					
11					-	36					
12					-	37					
13					-	38					
14					-	39					
15	BROMAD	D	21	4	+	40					
16					-	41					
17					-	42					
18	Dead shrub			37	+	43					
19	↓			↓	↓	44					
20	↓			↓	↓	45					
21	ERIO	M	3	58	+	46					
22	ERIO	M	3	32	+	47					
23	"	"	"	"	"	48					
24	↓			↓	↓	49					
25						50					

ERIO = *Eriodictyon crassifolium* VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

19/26 = 73%

semi disturbed  
not SGB

one lone cottonwood

*Rhus ovata*

ARTCAL BROMAD

~~RESTORATION~~

*Exchange*

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP AL Plot Number: 5GB313 Location: Elderberry Forebay

Visual estimate before sampling: CWHR habitat type: chap CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0'	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1'	1.5-1.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	↓		↓		↓	20	ERIFAS	M	3	34	+
2	↓		↓		↓	27					
3	↓		↓		↓	28					
4	↓		↓		↓	29	Forb	D	1	7	+
5					-	30					
6					-	31					
7	Dead ERIO			82	+	32					
8	Forb	D	1	6	+	33					
9	ARTCAL	D	3	49	+	34					
10	↓		↓		↓	35					
11	↓		↓		↓	36					
12	↓		↓		↓	37					
13	Dead shrub			28	+	38	BIRNAD	D	1	3	+
14	Dead shrub			36	+	39					
15	ERIO	Y	2	44	+	40	BIRNAD	D	1	5	+
16	"	"	"	"	"	41					
17	ARTCAL	D	3	63	+	42					
18	↓		↓		↓	43					
19	↓		↓		↓	44					
20	ERIFAS	M	3	48	+	45					
21	↓		↓		↓	46					
22	↓		↓		↓	47					
23	ARTCAL	D	3	52	+	48					
24	↓		↓		↓	49					
25	↓		↓		↓	50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

*24/26 = 92%*



*Xchange*

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP AL Plot Number: SGB30 Location: Elderberry Forebay

Visual estimate before sampling; CWHR habitat type: chap CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above budout)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	"	"	"	"	"	160	ARTCAL	D	3	35	+
2					-	27					
3	ARTCAL	Y	2	17	+	28					
4					-	29					
5	Dead shrub			23	+	30					
6	ERFAS	M	3	33	+	31					
7						32					
8						33					
9						34					
10						35					
11						36					
12	ER10	M	3	8.6	+	37					
13						38	FORS	D	2	4	+
14						39					
15						40	BROMAD	D	2	5	+
16						41					
17						42					
18					-	43					
19					-	44					
20	FORSB	D	2	5	+	45					
21	ERIFAS	M	3	53	+	46	BROMAD	D	1	7	+
22						47	"	D	1	9	+
23						48	"	D	1	8	+
24						49					
25						50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =      (# veg. hits/25 or 30) \* 100

*27/26 = 85%*

~~checklist~~

checklist on MCH 36 page

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/3/2018 Sample Crew: IC/OL Plot Number: SGB 4A + 4B Location: Gorman Creek

Visual estimate before sampling; CWHR habitat type: Disturbed RRS (SGB)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1.5"	< 2 0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-99% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 10% (None)	≥ 12 1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2 0'-9 9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0'-19 9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20 0'	D	Dense cover	≥ 60.0% all types

4A 4B  
Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines. 4 4 2 +

Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	bromel.	4	4	2	+	26	1				-
2					-	27	2				-
3	bromel	4	4	7	+	28	3	bromel	4	4	+
4					-	29	4	bromel	4	4	+
5					-	30	5				-
6	bromel	4	4	2	+	31	6				-
7	bromel	4	4	4	+	32	7	prina	3	2	+
8	bromel	4	4	11	+	33	8				+
9					↓	34	9				↓
10					↓	35	10				↓
11	prina	3	2	39	+	36	11				↓
12					↓	37	12				↓
13	bromel	4	4	3	+	38	13				↓
14	prina	3	3	40	+	39	14				↓
15					↓	40	15	prina	3	2	+
16					↓	41	16				↓
17					↓	42	17				↓
18					↓	43	18				↓
19					-	44	19				↓
20	bromel	4	4	8	+	45	20				↓
21					↓	46	21				↓
22					↓	47	22				↓
23					↓	48	23				-
24					-	49	24	bromel	4	4	+
25	bromel	4	4	2	+	50	25	bromel	4	4	+

VEGETATION COVER MEASUREMENT *addsp: stefunu*

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

*addsp: hir incana, cent mel*

4A - 20/26 = 77%

4B - 21/26 = 81%

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: DL IC Plot Number: 585-4C Location: Gorman Creek

Visual estimate before sampling; CWHR habitat type: Dist RRS (SG-B)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht (m/ft)	hit or miss
1	brmed	4	4	2	+	26					
2					-	27					
3					-	28					
4	brmed	4	4	5	+	29					
5	erina	3	2	27	+	30					
6	↓	↓	↓	↓	↓	31					
7	↓	↓	↓	↓	↓	32					
8	↓	↓	↓	↓	↓	33					
9					-	34					
10					-	35					
11	artdra	3	4	46	+	36					
12	↓	↓	↓	↓	↓	37					
13	↓	↓	↓	↓	↓	38					
14	↓	↓	↓	↓	↓	39					
15	↓	↓	↓	↓	↓	40					
16	↓	↓	↓	↓	↓	41					
17	brmed	4	4	6	+	42					
18	erina	3	2	29	+	43					
19	↓	↓	↓	↓	↓	44					
20	↓	↓	↓	↓	↓	45					
21	erina	3	2	35	+	46					
22	↓	↓	↓	↓	↓	47					
23	↓	↓	↓	↓	↓	48					
24	↓	↓	↓	↓	↓	49					
25	artdra	3	4	57	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\# \text{ veg. hits}}{25 \text{ or } 30} * 100$

*Croton setiger*  
~~artdra~~  
*seriph cer*

$21/26 = 81\%$

CWHR HABITAT ELEMENT CHECK LIST

AGS-5  
10/2/17 ✓

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	I <sub>0</sub>	LAYER, HERBACEOUS >10% herb understorey		SNAG, LARGE (ROT TEN) >30" dbh
	ALGAE - Any algae other than kelp	E <sub>0</sub>	LAYER, SHRUB >10% shrub understorey		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc	O	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROT TEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I <sub>0</sub>	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROT TEN) <15" dbh
	BANK - Cut, hollow or lake border		LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg within veg area		LOG, LARGE (HOLLOW) >20" diam	I <sub>0</sub>	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I <sub>0</sub>	SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 3-3" diam.
	BIRDS, MED - 110-450g (4oz-1b) 1b1111111		LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - >20% organic matter (weight)
	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam	I <sub>0</sub>	SOIL, SANDY - Sand .05-2mm diam
	BRUSH PILE - >1m high, >15m <sup>2</sup> basal area	I <sub>0</sub>	MAMMALS, LARGE - >2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc	I <sub>0</sub>	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
I <sub>0</sub>	BURROW - Excavation made by animal	I <sub>0</sub>	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body	O	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	I <sub>0</sub>	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
I <sub>0</sub>	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill	I	NUTS - Hard-shelled, dry fruit.		TIDEPOOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc human use	O	TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	O	TREE LEAVES
	FERN - Spore-forming plants with fronds		REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH	O	RIPARIAN INCLUSION - Riparian veg. (small)	O	TREE, W/ CAVITIES
I <sub>0</sub>	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	O	TREE, W/ LOOSE BARK
I <sub>0</sub>	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS	O	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc		SALT PONDS - Saline ponds	O	TREE/SHRUB - Interface
I <sub>0</sub>	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I <sub>0</sub>	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface	I <sub>0</sub>	SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp</i> > 11" dbh
I <sub>0</sub>	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I <sub>0</sub>	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
	INVERTEBRATES	I <sub>0</sub>	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt; flows < 5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

Riparian Inclusion - scattered willows + cottonwoods along small drainage

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/18 Sample Crew: ICDL Plot Number: AGS-SA and 5B Location: CA Canal

Visual estimate before sampling; CWHR habitat type: RFS SGB

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. shoot & height)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb. Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	<b>P</b>	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb. Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

AGS-SA

AGS-5B

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (ft)	hit or miss (+/-)
1					-	A 26 0	Bra. med	4	4	5	+
2	Er. ab.	2	3	8	+	B 27 0	primav	3	2	44"	+
3					-	28 1	↓	↓	↓	↓	↓
4					-	29 2	er. ab.	3	3	40"	+
5					-	30 3	↓	↓	↓	↓	↓
6	Bra.	4	4	10	+	31 4	↓	↓	↓	↓	↓
7	"	4	4	10	+	32 5	↓	↓	↓	↓	↓
8					-	33 6	er. ab.	3	2	48"	+
9					-	34 7	↓	↓	↓	↓	↓
10					-	35 8	↓	↓	↓	↓	↓
11	Er. ab.	4	4	8	+	36 9	↓	↓	↓	↓	↓
12	Primav	4	4	6	+	37 10	↓	↓	↓	↓	↓
13	↓	↓	↓	↓	+	38 11	↓	↓	↓	↓	↓
14	↓	↓	↓	↓	+	39 12	↓	↓	↓	↓	↓
15	↓	↓	↓	↓	+	40 13	br. med	4	4	10"	+
16	Bra.	4	4	6	+	41	br. med	4	4	5"	+
17	↓	↓	↓	↓	+	42	↓	↓	↓	↓	↓
18	↓	↓	↓	↓	+	43 16	br. med	4	4	8"	+
19					-	44 17	br. med	4	4	8"	+
20					-	45 18	↓	↓	↓	↓	↓
21					-	46 19	↓	↓	↓	↓	↓
22					-	47 20	br. med	4	4	8"	+
23					-	48 21	↓	↓	↓	↓	↓
24	Br. med	4	4	5	+	49 22	↓	↓	↓	↓	↓
25	"				+	50 23	↓	↓	↓	↓	↓

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

A -  $\frac{13}{26} =$

B -  $\frac{25}{26} =$

area of NMG with RFS median NMG < 0.1 area  
address species: Steph tenu (slender wrench plant)  
↳ not

also 4,4 ↓

\* had to modify wooded datasheet

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
 NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: JC DL Plot Number: ARS-SC Location: CA Canal

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: SGB  
 Structure: Even-structure, or Uneven-structure: same as A/B

Standards For Tree Size <i>Shrub</i>					Standards For Canopy Closure <i>Shrub</i>		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g, 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	prnaw		3	3	42	+	26						
2							27						
3							28						
4							29						
5							30						
6							31						
7	brnmed		4	4	6"	+	32						
8	prnaw		4	4	24"	+	33						
9							34						
10							35						
11							36						
12	brnmed		4	4	6"	+	37						
13							38						
14							39						
15							40						
16							41						
17	sisiri		4	4	23"	+	42						
18	sisiri		4	4	23"	+	43						
19	brnmed		4	4	6"	+	44						
20							45						
21	brnmed		4	4	4"	+	46						
22	brnmed		4	4	4"	+	47						
23	brnmed		4	4	4"	+	48						
24	prnaw		3	2	53"	+	49						
25	prnaw		3	2	53"	+	50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.  
 Percent Cover = (no. hits/25) \* 100.

N-S: \_\_\_\_\_ E-W: \_\_\_\_\_  
 (Center stake)

24/26 = 92%

Grasses overall, insubstantial over 2 separate from surrounding RRS



AGS 6

CWHR HABITAT ELEMENT CHECKLIST



Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input checked="" type="checkbox"/>	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.	O	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border		LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 8-3" diam
I	BIRDS, MED. - 110-450g (4oz-1lb) (b1111111)		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - > 20% organic matter (wght)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	\	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	\	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	\	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body	O	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area		TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	O	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
\	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
\	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted; >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP Plot Number: AG56A Location: Los Hornos LG

Visual estimate before sampling; CWHR habitat type: AL AGS - Hordeum monoculture

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above julius)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss
1	HOR	D	2	20	+	10	HOR			15	-
2			2	46		27					
3			2	21		28					
4			2	13		29					
5			2	42		30					
6			2	39		31					
7				16		32					
8				14		33					
9				18		34					
10			1	5		35					
11			2	17		36					
12				38		37					
13				29		38					
14				20		39					
15				14		40					
16				23		41					
17				22		42					
18				45		43					
19				18		44					
20				10		45					
21			2	20		46					
22				27		47					
23				12		48					
24				51		49					
25				34		50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

quail  
cotton tail  
predator evidence  
→ dead quail

$26/26 = 100\%$   
HOR = Hordeum sp. murinum  
~~Hordeum~~? ssp. leporinum

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP Plot Number: AG56B Location: Los Alamos CG

Visual estimate before sampling; CWHR habitat type: AL AGS Hordeum monoculture

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above budline)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0'	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1'	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	HOR	D	2	17	+	20					-
2				24	+	27					
3				30		28					
4				14		29					
5				18		30					
6				42		31					
7				15		32					
8				22		33					
9				15		34					
10				26		35					
11				16		36					
12				32		37					
13			↓	44		38					
14				4		39					
15			2	52		40					
16				15		41					
17				18		42					
18				23		43					
19				34		44					
20				47		45					
21				21		46					
22				22		47					
23				26		48					
24				53		49					
25				48		50					

HOR = Hordeum sp.  
murinum

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =      (# veg. hits/25 or 30) \* 100

$25/26 = 96\%$

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP Plot Number: AGS6C Location: Los Alamos CG  
 Visual estimate before sampling; CWHR habitat type: AL AGS

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-39.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss
1	<del>HOR</del>	<del>2</del>	miss		-	26	HOR				-
2	BRASSICA	D	2	30	+	27					
3	HOR			14	+	28					
4	HOR			26	+	29					
5				23	+	30					
6				15	+	31					
7				19	+	32					
8				44	+	33					
9	↓		↓	12	+	34					
10					-	35					
11	HOR		2	15	+	36					
12	HOR		2	33	+	37					
13				5	-	38					
14					-	39					
15	HOR		2	13	+	40					
16			1	11	+	41					
17			2	16	+	42					
18			2	22	+	43					
19	↓		2	14	+	44					
20					-	45					
21					-	46					
22					-	47					
23	HOR		2	24	+	48					
24	HOR		2	14	+	49					
25	HOR	↓	2	15	+	50					

HOR = *Hordeum sp. murinum*

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$18/26 = 69\%$

animal trails  
 gopher/burrows  
 ↓  
 creates bars/misses.

10/4/2018

IC/DL

#inaccessible, plots not collected over the fence assessment

CWHR HABITAT ELEMENT CHECKLIST

AGS-7

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	10	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.	0	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	10	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	10	LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
10	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 8-3" diam.
10	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
10	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	10	SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb)		SPRINGS - Freshwater springs, seeps
0	BUILDINGS - Houses, sheds, etc.	10	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
10	BURROW - Excavation made by animal	10	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
0	CAMPGROUND		MOSS - Bryophytes	0	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body	0	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	10	NECTAR		STREAMS, PERMANENT
0	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large e platform		STUMP (SOUND) snag <3m (10') high
10	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	0	TRANSMISSION LINES
10	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	0	TREE LEAVES
	FERN - Spore-forming plants with fronds	10	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	0	TREE, W/ CAVITIES
10	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	0	TREE, W/ LOOSE BARK
10	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS	0	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
10	GRAIN - A single, hard cereal seed		SAND DUNE	0	TREE/WATER - Interface
10	GRAMINIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface	0	SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
10	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
10	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
10	INVERTEBRATES	10	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.	0	WATER, SLOW - Some silt; flows < .5 ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
0	LAKES - Permanent >2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

Area is fenced off. AGS 7A includes bromegrass (80-90%), Ambacum (5%)  
 hirinc (1%), coiset (1%)

AGS 7B: hirinc (5-10%), bromus (60-70%), ~~epilobium~~ (5-10%), Lepid sga  
 Lepidospartum  
 squamatum

BAR 8

CWHR HABITAT ELEMENT CHECKLIST



Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input type="checkbox"/>	LAYER, HERBACEOUS >10% herb. understory	<input type="checkbox"/>	SNAG, LARGE (ROT TEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE, (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROT TEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	<input type="checkbox"/>	LITHIC - Rock water <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROT TEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border	<input type="checkbox"/>	LITTER - Residue <1" indiam.	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg. with veg. area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam.	<input type="checkbox"/>	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROT TEN) >20" diam.	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam.	<input type="checkbox"/>	SOIL, GRAVELLY - Gravel 3-3" diam
<input type="checkbox"/>	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic mater (wght)
<input type="checkbox"/>	BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROT TEN) 10-20" diam.	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg.
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas	<input type="checkbox"/>	LOG, MEDIUM (SOUND) 10-20" diam.	<input type="checkbox"/>	SOIL, SANDY - Sand 0.5-2mm diam
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/>	MAMMALS, LARGE - > 2270g (5lb.)	<input type="checkbox"/>	SPRINGS-Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc.	<input type="checkbox"/>	MAMMALS, MED. - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
<input type="checkbox"/>	BURROW - Excavation made by animal	<input type="checkbox"/>	MAMMALS, SMALL - < 110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input type="checkbox"/>	STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS- contiguous with water body	<input type="checkbox"/>	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	<input type="checkbox"/>	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROT TEN)-snag<3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND)-snag<3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying mater	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS-Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit.	<input type="checkbox"/>	TIDEPOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc. human use	<input type="checkbox"/>	TRANSMISSION LINES
<input type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf area	<input type="checkbox"/>	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	<input type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input type="checkbox"/>	FLOWERS	<input type="checkbox"/>	RIVERS - Perm., >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam.	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/>	SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE/SHRUB - Interface
<input type="checkbox"/>	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
<input type="checkbox"/>	GRAMINOIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	<input type="checkbox"/>	SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE- Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB/GRASS - Interface	<input type="checkbox"/>	VERNAL POOLS
<input type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB/WATER - Interface	<input type="checkbox"/>	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES	<input type="checkbox"/>	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsalted, >2ft/sec flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROT TEN) Residue 3-10" diam.	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	<input type="checkbox"/>	WATER, SLOW - Some silt; flows < .5ft/sec.
<input type="checkbox"/>	KELP - Large, coarse, brown algae	<input type="checkbox"/>	SLASH, LARGE (SOUND) Residue 3-10" diam.	<input type="checkbox"/>	WATER/AGRICULTURE- Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/>	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WHARF



MINE - excavated for minerals



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP Plot Number: BAR 8A Location: Los Alamos Campgro

Visual estimate before sampling; CWHR habitat type: AL Barren (BAR)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above butt)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

no hits

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1					-	26					-
2					-	27					-
3					-	28					-
4					-	29					-
5					-	30					-
6					-	31					-
7					-	32					-
8					-	33					-
9					-	34					-
10					-	35					-
11					-	36					-
12					-	37					-
13					-	38					-
14					-	39					-
15					-	40					-
16					-	41					-
17					-	42					-
18					-	43					-
19					-	44					-
20					-	45					-
21					-	46					-
22					-	47					-
23					-	48					-
24					-	49					-
25					-	50					-

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$0/26 = 0\%$

some scattered  
Salsola tragus  
Bromus  
~~unknown~~  
Croton setigerus

house finch  
harriser? → flying by  
Cuth. quail  
Song sparrow  
Humming bird sp.  
scrub jay

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP Plot Number: BAR 8 B Location: Los Alamos Campground  
 Visual estimate before sampling; CWHR habitat type: AL barren (BAR)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss
1					-	25					-
2						26					
3						27					
4						28					
5						29					
6						30					
7						31					
8						32					
9						33					
10						34					
11						35					
12						36					
13						37					
14						38					
15						39					
16						40					
17						41					
18						42					
19						43					
20						44					
21						45					
22						46					
23						47					
24						48					
25						49					
						50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

0/26 = 0%

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP Plot Number: BAR 8<sup>C</sup> Location: Los Alamos campground

change this area to AG

Visual estimate before sampling; CWHR habitat type: Mowed - possible AGS, cover > 1%

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. above Julius)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss
1					-	26	Erodium	D	1	1	+
2					-	27					
3	Erodium	D	1	1	+	28					
4					-	29					
5					-	30					
6	Erodium	D	1	1	+	31					
7	Erodium	D	1	1	+	32					
8					-	33					
9					-	34					
10	Erodium	D	1	1	+	35					
11	Erodium	D	1	1	+	36					
12	Erodium	D	1	1	+	37					
13	Bromus	D	1	1	+	38					
14					-	39					
15					-	40					
16	Erodium	D	1	1	+	41					
17	Erodium	D	1	1	+	42					
18	Erodium	D	1	1	+	43					
19					-	44					
20	Erodium	D	1	1	+	45					
21					-	46					
22					-	47					
23					-	48					
24	Erodium	D	1	1	+	49					
25					-	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$13/26 = 50\%$

Erodium = Erodium cicutarium

### CWHR HABITAT ELEMENT CHECK LIST

BAR-9

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	10	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	10	LITTER - Residue <1" diam.		SNAG, SMALL (SOUND) <15" dbh
0	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
10	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 8-3" diam.
10	BIRDS, MED. - 110-450g (4oz-1lb) 11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - > 20% organic matter (wght)
10	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	10	SOIL, SANDY - Sand 0.5-2mm diam.
0	BRUSH PILE - >1m high, >15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb)		SPRINGS - Freshwater springs, seeps
0	BUILDINGS - Houses, sheds, etc.	10	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	10	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	0	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	10	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
10	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
0	FENCES - Any type	0	PONDS - Permanent, <2ha (5 acres) surf. area	10	TREE LEAVES
	FERN - Spore-forming plants with fronds	10	REPTILES	10	TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	10	TREE, W/ CAVITIES
10	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	10	TREE, W/ LOOSE BARK
10	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
10	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
10	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
10	GRAMINOIDS - Grass-like plants	10	SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface	10	SEEDS - Other than listed above	10	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
10	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
10	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface	10	WATER - Any source of free water
10	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt, flows < .5ft/sec.
	KELP - Large, coarse, brown algae	10	SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
	LAKES - Permanent > 2ha (5 acres)	10	SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/4/18 Sample Crew: DLIC Plot Number: BAR-94/9B Location: Castaic Lagoon

Visual estimate before sampling; CWHR habitat type: Rubra / Dist AGS (too much cover to be BAR)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above/below)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

9A      9B

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss
1					—	26 1					—
2					—	27 2	<i>Saltra</i>	3	2	16	+
3	<i>atrsem</i>	3	2	4	+	28 3	↓	↓	↓	↓	↓
4					—	29 4	<i>A</i>				—
5	<i>atrsem</i>	3	2	4	+	30 5					—
6	<i>atrsem</i>	3	2	4	+	31 6					—
7					—	32 7	<i>atrsem</i>	3	2	5	+
8					—	33 8	↓	↓	↓	↓	↓
9					—	34 9	↓	↓	↓	↓	↓
10	<i>atrsem</i>	3	2	8	+	35 10	<i>atrsem</i>	4	4	12	+
11					—	36 11	↓	↓	↓	↓	↓
12					—	37 12	↓	↓	↓	↓	↓
13					—	38 13	<i>Saltra</i>	3	2	31	+
14					—	39 14	↓	↓	↓	↓	↓
15					—	40 15	↓	↓	↓	↓	↓
16					—	41 16	↓	↓	↓	↓	↓ <i>atrsem</i>
17					—	42 17					—
18					—	43 18					—
19					—	44 19					—
20					—	45 20					—
21					—	46 21					—
22					—	47 22					—
23					—	48 23					—
24					—	49 24					—
25					—	50 25					—

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =     (# veg. hits/25 or 30) \* 100

$A - 4/26 = 15\%$

$B - 21/26 = 81\%$

Significant grass/patch cover, 80% mowed?

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/14/18 Sample Crew: DLIC Plot Number: BAR-9C Location: Castaic Lagoon

Visual estimate before sampling; CWHR habitat type: ~~Pine/Rubert~~ AGS

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam.)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

0 Salvia 3 2 10 +  
Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1					—	26					
2					—	27					
3					—	28					
4	Salvia	3	2	6	+	29					
5	brn med	4	4	4	+	30					
6	Salvia	3	2	5	+	31					
7					—	32					
8					—	33					
9					—	34					
10	arsem	3	4	1	+	35					
11	brn med	4	4	4	+	36					
12					—	37					
13					—	38					
14					—	39					
15	Salvia	3	2	11	+	40					
16	Salvia	3	2	11	+	41					
17	Salvia	3	2	16	+	42					
18	↓	↓	↓	↓	↓	43					
19					—	44					
20					—	45					
21					—	46					
22					—	47					
23					—	48					
24					—	49					
25					—	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

10/26 = 38%

ornamental eucalyptus cam in the area, plus poplars



BOP10A

2/2 datasheets

CWHR HABITAT ELEMENT CHECKLIST

only 2 datasheets due to small area/private property

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

I	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT	I	LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" in diam		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam		SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 3-3" diam
I	BIRDS, MED - 110-450g (4oz-1lb) (b1111111)		LOG, MEDIUM (HOLLOW) 10-20" diam	I	SOIL, ORGANIC - >20% organic matter (wght)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam		SOIL, SANDY - Sand 0.5-2mm diam
I	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc	I	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag <3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
O	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES	I	TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
O	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	I	TREE, W/ LOOSE BARK
	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit	I	ROOTS	I	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	I	TREE/SHRUB - interface
	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	I	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt; flows < .5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF



MINE - excavated for minerals

# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10/11/15 Sample Crew: LP I C AL Plot Number: BOP 104 Location: CA aqueduct

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: ~~BOP Turbidity class~~ BOW  
Structure: Even-structure: \_\_\_\_\_, or Uneven-structure: X

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
(2)	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
(3)	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
(4)	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	(D)	Dense Cover	>60.0%
(5)	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g., 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Quercus douglasii

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	<del>Quercus</del>	0	75	70	40	NW	26						
2	"	0	42	65	40	NE	27						
3	"	0	30	65	25	SE	28						
4							29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

### OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$

N-S: ++ + + + + + + + + + + +

E-W: + + + + + + + 0 0 0 0 +

21/25  
84%

(Center stake)

Most part clear + some cover, some point sampling signs. Pines visible at red 1 part

Big me!

*Persea arborea* → *peritoma arborea*

modified non-wooded datasheet - for wooded area

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
 NON-WOODED HABITAT SAMPLING DATASHEET

Count 1, 2  
 du 3rd  
 due to access

Date: 10/1/19 Sample Crew: LCALJC BOPOB Plot Number:  Location: CA aqueduct

Visual estimate before sampling; CWHR habitat type: ~~Open~~ ~~Intermediate~~ 30W

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. show bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

1  
2  
3  
5

P

5 → Joshua → uneven

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)
1	Quercus	45	36		NI-	26					
2	Quercus	45	26	25	NI	27					
3	"	45	12+12+18+12	25	SW	28					
4	"		42+18+18+12		NW	29					
5	"	8	5	15	NW	30					
6						31					
7						32					
8						33					
9						34					
10						35					
11						36					
12						37					
13						38					
14						39					
15						40					
16						41					
17						42					
18						43					
19						44					
20						45					
21						46					
22						47					
23						48					
24						49					
25						50					

Quercus douglasii

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover = (# veg. hits/25 or 30) \* 100

H. whipplei  
 B. marit  
 Ericaceae sticky lines  
 Po. sp.

115 X 00 X X 0 1 0 0 0 5 0  
 |  
 center

[ W X X X X 0 0 0 X 0 X X X  
 |  
 cen

13/25 = 52

10/1/18 DL, SA, DL

CWHR HABITAT ELEMENT CHECKLIST

19 BOP

BOP-11 (red dot) ✓

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak I, O	LAYER, HERBACEOUS >10% herb understory I, O	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	LAYER, SHRUB >10% shrub understory	SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.	LAYER, TREE >10% subcanopy trees	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	LICHENS I, O	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	LITHIC - Rock scatter <10" diam	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border	LITTER - Residue <1" in diam I, O	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg within veg. area	LOG, LARGE (HOLLOW) >20" diam	SOIL, AERATED - Well drained
BERRIES - Small pulpy fruit	LOG, LARGE (ROTTEN) >20" diam	SOIL, FRIABLE - Easily crumbled I, O
BIRDS, LARGE - > 450g (1lb) I, O	LOG, LARGE (SOUND) >20" diam	SOIL, GRAVELLY - Gravel 8-3" diam
BIRDS, MED - 110-450g (4oz-1lb) I, O	LOG, MEDIUM (HOLLOW) 10-20" diam	SOIL, ORGANIC - >20% organic matter (wght)
BIRDS, SMALL - < 110g (4oz) I, O	LOG, MEDIUM (ROTTEN) 10-20" diam	SOIL, SALINE - Alkaline soils/veg
BOGS - Low-lying, residue rich areas	LOG, MEDIUM (SOUND) 10-20" diam	SOIL, SANDY - Sand .05-2mm diam I, O
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	MAMMALS, LARGE - > 2270g (5lb) I, O	SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.	MAMMALS, MED - 110-2270g (4oz-5lb) I, O	SPRINGS, HOT
BURROW - Excavation made by animal I, O	MAMMALS, SMALL - < 110g (4oz) I, O	SPRINGS, MINERAL
CAMPGROUND	MOSS - Bryophytes	STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter	MUD FLATS - contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	NECTAR I, O	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face	NEST BOX - Constructed nesting cavity	STUMP (ROTTEN) - snag < 3m (10') high
CONES - From gymnosperm trees I, O	NEST PLATFORM - Const. large platform	STUMP (SOUND) - snag < 3m (10') high I
DUFF - Non-structured decaying matter I, O	NEST ISLAND - Man-made nesting island	TALUS - Slope from rock accumulation
DUMP - Sanitary landfill	NUTS - Hard-shelled, dry fruit	TIDEPOOLS
EGGS - Any bird or reptile eggs	PACK STATION - with assoc human use	TRANSMISSION LINES
FENCES - Any type 0	PONDS - Permanent, < 2ha (5 acres) surf area	TREE LEAVES I, O
FERN - Spore-forming plants with fronds	REPTILES I, O	TREE, BROKEN LIVE TOP > 11" dbh
FISH	RIPARIAN INCLUSION - Riparian veg (small)	TREE, W/ CAVITIES
FLOWERS I, O	RIVERS - Perm., > 6m (20') wide in dry season	TREE, W/ LOOSE BARK I, O
FORBS - Herbaceous dicotyledons	ROCK - Outcrop > 10" diam	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	ROOTS I, O	TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.	SALT PONDS - Saline ponds	TREE/SHRUB - Interface I, O
GRAIN - A single, hard cereal seed	SAND DUNE	TREE/WATER - Interface
GRAMINOIDS - Grass-like plants I, O	SAP I, O	TREES, FIR - <i>Abies sp</i> > 11" dbh
GRASS/AGRICULTURE - Interface	SEEDS - Other than listed above	TREES, HARDWOOD - > 11" dbh I
GRASS/WATER - Interface	SHRUB/AGRICULTURE - Interface	TREES, PINE - <i>Pinus sp</i> > 11" dbh
INSECTS, FLYING - Insect caught in air I, O	SHRUB/GRASS - Interface	VERNAL POOLS
INSECTS, TERRESTRIAL I, O	SHRUB/WATER - Interface	WATER - Any source of free water 0
INVERTEBRATES I, O	SHRUBS - Woody plants, not trees 0	WATER, FAST - Unsalt, > 2ft/sec flows
INVERTEBRATES, AQUATIC	SLASH, LARGE (ROTTEN) Residue 3-10" diam	WATER, CREATED BODY - Guzzler, well, etc
JETTY - Rock/concrete extending into water	SLASH, LARGE (HOLLOW) Residue 3-10" diam	WATER, SLOW - Some silt, flows < 5ft/sec
KELP - Large, coarse, brown algae	SLASH, LARGE (SOUND) Residue 3-10" diam	WATER/AGRICULTURE - Interface
LAKES - Permanent > 2ha (5 acres)	SLASH, SMALL Residue 1-3" diameter	WHARF

MINE - excavated for minerals

Raven feather  
Quail  
woodrat nest



# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date 10-1-18 Sample Crew: DL, SA, DL Plot Number 19A Location Quail Lake  
 BOP = BOP-11A

Visual estimate at plot center before sampling CWHR habitat type, size class and canopy closure class: BOP MCH  
 Structure Even-structure: \_\_\_\_\_ or Uneven-structure WNEVEN

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥60% (layers must have ≥10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	QUE.	O	7+3+8 = 27 in.			SW	20	QUE.	O	12+5 = 17 in.			
2			+6+3				21	QUE.	U	8+5+5 = 18 in.			
3	QUE.	O	6+7+9 = 22 in.	9 ft	12 ft	SW	28						
4			8+4 = 12 in.				29						
5	QUE.	O	10+12+10 = 32 in.				30						
6	QUE.	U	2.5+4 = 6.5 in.				31						
7	QUE.	U	2+1+0 = 3 in.				32						
8	QUE.	O	4+10 = 14 in.		15 ft	SE	33						
9	QUE.	O	3 main trunks				34						
10			(1.5+3.5+4+2) = 11.5 in.				35						
11	QUE.	O	3+1+1 = 5 in.	5 ft	12 ft	NE	36						
12			2+2 = 4 in.				37						
13	QUE.	O	8+5+4 = 17 in.				38						
14			+4 = 4 in.				39						
15	QUE.	O	10.5+6 = 16.5 in.				40						
16			+6+4 = 10 in.				41						
17			+3+3+2 = 8 in.				42						
18	QUE.	O	6+9+4 = 19 in.				43						
19			+5 = 5 in.				44						
20	QUE.	U	(2+3+2) = 7 in.	6 ft	10 ft	NW	45						
21			+4+3 = 7 in.				46						
22			3+2 = 5 in.				47						
23	QUE.	U	6+10 = 16 in.				48						
24	QUE.	U	4+10 = 14 in.				49						
25	QUE.	O	10+14 = 24 in.				50						

### OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval. Percent Cover =  $(\frac{16}{25}) * 100$  = 64% cover

N-S = = = + + + + + - - - E-W + - - + + + + + + + +  
 (Center stake) Need to ID Quercus - John-tucker

Mostly Quercus w/ just a few Pinus - mostly saplings  
 Heavy stuff  
 NNGs in understory (Bro MAD, Ericameria, Phytolacca)

# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10-1-18 Sample Crew DL, SA, DL Plot Number 198 <sup>POP = 60P-11B</sup> Location Quail Lake

Visual estimate at plot center before sampling CWHR habitat type, size class and canopy closure class 70P MCH  
Structure: Even-structure \_\_\_\_\_, or Uneven-structure uneven

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1 0"	S	Sparse Cover	10 0 24 9
2	Sapling tree	n/a	<15 0'	1 0"-5 9"	P	Open cover	25 0-39 9
3	Pole tree	<12 0'	15 0'-29 9'	6 0"-10 9"	M	Mod Cover	40 0-59 9
4	Small tree	12 0'-23 9'	30 0'-44 9'	11 0"-23 9"	D	Dense Cover	>60 0%
5	Medium/large tree	≥24 0'	≥45 0'	≥24 0"	Uneven-structure _3 CWHR size classes or if only 2 classes present then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation Plots are even-structured if they do not meet uneven-structure definition		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

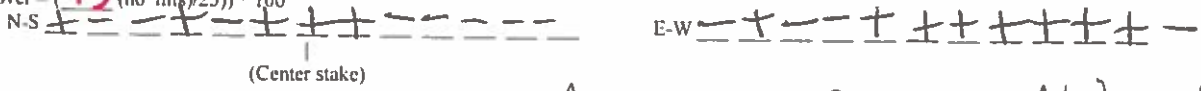
Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius) Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot Overstory trees include pre-dominants and dominants and generally co-dominants Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees

Pinus = monophylla  
Quercus = john-tuckeri

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	PIN	O	4 in.	18 ft	15 ft	NW	26	QUE.	O	10+8+1	16 ft	12 ft	SW
2	PIN	O	4 in.				27		U	18+10+3+2			
3	QUE.	U	4+3+4				28	QUE.	U	4+4			
4			(+3+5+4+2)				29	QUE.	U	15 in.			
5							30						
6	QUE.	U	5x2=10				31						
7			+3x1=3				32						
8	QUE.	U	3x2=6				33						
9			+3x1=3				34						
10	QUE.	U	multi	3 ft	10 ft	SE	35						
11			(tot = 10 in.)				36						
12	QUE.	U	3 trunks				37						
13			(15 in.)				38						
14	QUE.	O	multi (tot = 17 in.)				39						
15	QUE.	O	4+3+2	6 ft	13 ft	NE	40						
16			+4+6				41						
17	QUE.	O	multi (tot = 11 in.)				42						
18	QUE.	U	6 in.				43						
19	QUE.	U	multi	44 in. tot.)			44						
20	PIN	U					45						
21	PIN	U					46						
22	QUE.	O	4+2+4+				47						
23			3+3				48						
24	QUE.	O	3+2+3+2+4+3+3+3+2				49						
25	QUE.	O	multi (27 in. tot.)				50						

### OVERSTORY CANOPY COVER MEASUREMENT

Overstory canopy hits (+) and misses (0) measured through a sighting tube at 6.2 ft intervals beginning at the North stake and proceeding along the N-S axis for 13 readings then from the East stake along the E-W axis for 12 readings and skipping the center stake Take readings with tube held over the 6.2 ft interval  
Percent Cover =  $(\frac{13 \text{ hits}}{25}) * 100 = 52\%$



Oak dom. less Pinus  
Needle fascicle  
Juniperus californica  
Arctostaphylos  
Erios. fasc.  
woodrat nest  
rabbit pellets



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

Date: 10-1-18 Sample Crew: DL, SA, DL Plot Number: 19C Location: Quail lake  
BOP = BOP-11C  
BOP MCH

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class  
Structure: Even-structure: \_\_\_\_\_, or Uneven-structure: uneven

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<u>Uneven-structure</u> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	PIN	U	4.5 in.	3 ft.	10 ft.	SE	26						
2	QUE.	O	15 ft. 12 in.	3 ft.	17 ft.	SW	27						
3			14 in.				28						
4			3+4				29						
5	QUE.	U	3+2.5 in. = 5.5 in.				30						
6	QUE.	U	17 in.	10 ft.	12 ft.	NW	31						
7			(multi)				32						
8	QUE.	D	5+9+2+2+2+2+4+3+3+3+4 = 38 in.				34						
9							35						
10	QUE.	U	multi	10 ft.	13 ft.	NE	36						
11			(22 in. tot)				37						
12							38						
13							39						
14							40						
15							41						
16							42						
17							43						
18							44						
19							45						
20							46						
21							47						
22							48						
23							49						
24							50						
25													

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval. Percent Cover = (3 (no. hits)/25) \* 100. **12% cover**

N-S: - - - + - - - - - + - - - - - E-W: - - - - - + - - - - -

(Center stake)

*Pinus = monophylla*  
*Quercus = john-tuckeri*  
*Cercocarpus betuloides*  
*Ericameria pihifolia*

Bow 12

CWHR HABITAT ELEMENT CHECKLIST

private, inaccessible  
binoculars used

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb understorey	I	SNAG, LARGE (ROT TEN) >30" dbh
ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understorey	I	SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.	I	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROT TEN) 15-30" dbh
AQUATICS, EMERGENT	I	LICHENS	I	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROT TEN) <15" dbh
BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam.	I	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg within veg area	O	LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 3-3" diam
BIRDS, MED - 110-450g (4oz-1lb) lb11111111	I	LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - >20% organic matter (wght)
BIRDS, SMALL - < 110g (4oz)	I	LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg
BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc	I	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
CAMPGROUND		MOSS - Bryophytes	I	STEEP SLOPE-Slopes > 50%
CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	I	NECTAR		STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform	I	STUMP (SOUND)-snag<3m (10') high
DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
EGGS - Any bird or reptile eggs		PACK STATION - with assoc human use	O	TRANSMISSION LINES
FENCES - Any type	O	PONDS - Permanent, <2ha (5 acres) surf area	I	TREE LEAVES
FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
FISH		RIPARIAN INCLUSION - Riparian veg (small)	I	TREE, W/ CAVITIES
FLOWERS		RIVERS - Perm. >6m (20') wide in dry season		TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons	O	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	I	ROOTS	I	TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	I	TREE/SHRUB - Interface
GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	I	TREES, HARDWOOD - >11" dbh
GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface	I	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air	O	SHRUB/GRASS - Interface		VERNAL POOLS
INSECTS, TERRESTRIAL	I	SHRUB/WATER - Interface		WATER - Any source of free water
INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec flows
INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt, flows < 5ft/sec
KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE- Interface
LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

Actual point ~ 0.5 mile south on hillside

veg notes → unknown *Quercus* ~15%  
*Pinus sabiniana*? ~30%  
*Juniperus* (scattered)  
 chaparral understorey

woodpecker  
 crow  
 tree cavities  
 red tail hawk

nearby area more accessible → species observed:

change to blue oak pine?

*Quercus lobata*  
*Pinus sab.*  
*Ericameria naus.*  
*Poa secunda*

MINE - excavated for mine rails

LDW13



VRI

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak		LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
I	AMPHIBIANS - Frogs, Toads, etc.	I	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT	O	LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
I	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
I	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
I	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.	I	SOIL, GRAVELLY - Gravel 8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) Ib11111111		LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - >20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	I	STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body	I	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	I	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island	I	TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf.area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	I	TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	I	TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit	I	ROOTS	I	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	I	TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec. Flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

in wash

Date: 10/18/18 Sample Crew: LP AL Plot Number: COW13A Location: Elderberry Forebay

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: VR1  
Structure: Even-structure: \_\_\_\_\_, or Uneven-structure: X

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
<u>1</u>	Seedling tree	n/a	n/a	<1.0"	<u>S</u>	Sparse Cover	10.0-24.9%
<u>2</u>	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
<u>3</u>	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
<u>4</u>	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
<u>5</u>	Medium/large tree	≥24.0'	≥45.0'	≥24.0"			
<u>6</u>	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)			<u>Uneven-structure</u> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	PLARAC	over	5	12	18	NW	26						
2	PLARAC	over	3+2			NW	27						
3	PLARAC	over	36	20	30	NE	28						
4	NO TREES IN OTHER QUADRANTS							29					
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{\text{no hits}}{25}) * 100$

N-S: 0 0 + 0 0 0 0 0 0 0 0 0

E-W: 0 0 0 0 0 0 0 0 + + 0

(Center stake)

$3/25 = 12\%$

some cottonwood outside plot  
mulefat  
Smilo grass rabbit brush

in wash

## CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP, AL Plot Number: LOW13B Location: Elderberry Forebay

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: VP1  
Structure: Even-structure \_\_\_\_\_ or Uneven-structure

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.</b>		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	PLARAC	over	6+8+22	25	20	SE	26						
2	<del>PLARAC</del>						27						
3	<del>PLARAC</del>						28						
4							29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
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Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$ .

N-S: 0 0 0 0 0 0 0 0 0 0 + 0 0  
|  
(Center stake)

E-W: 0 0 0 0 0 0 0 0 + 0 0

California Fuchsia  
Eriodictyon crass.

$2/25 = 8\%$

on upper bank  
at intergrade w/  
chaparral

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET

Date 10/18/18 Sample Crew LP, AL Plot Number LOW13C Location Elderberry Forebay

Visual estimate at plot center before sampling. CWHR habitat type, size class and canopy closure class VR1  
Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: 0

with  
trunk

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
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2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
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Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	PLAPAC		6+5+5			SE	26						
2	PLAPAC	over	5+5	20	20	SE	27						
3	PLAPAC	over	6+4+4+3	25	25	NW	28						
4							29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
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Percent Cover = (no. hits/25) \* 100.

N-S: 0  
 (Center stake)

E-W: + + 0

2/25 = 8%

woodrat nest



COW 14

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

I	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understorey		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understorey		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.	I	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT	I	LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
I	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.	I	SOIL, GRAVELLY - Gravel 1/8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) 1b11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam.	I	SOIL, SANDY - Sand .05-2mm diam.
I	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	O	STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body	I	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES	I	TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	I	TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS	I	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	I	TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	I	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

open coast oak Savannah riparian - near small wash

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP, AL Plot Number: COW14A Location: Castaic TL

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: COW  
Structure: Even-structure:  or Uneven-structure:

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
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4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g., 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

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Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	QNEAGR	over	48	45	50	NW	26						
2	PLARAL	over	3+2	6	8	NE	27						
3	NO TREES						SW	28					
4	NO TREES						SE	29					
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
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16							41						
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OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100.  
N-S: 0 0 0 0 0 + + + 0 0 0 0 0 E-W: 0 0 0 0 0 0 + + + + + +  
10/25 = 40%

mule deer  
red tail  
scrub jay  
Shrub Center stake  
backwards  
open annual grassland in understory  
w/ Bromus & Arena  
Eucalyptus  
feral goats in previous ps

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

Date: 10/17/18 Sample Crew: LP, AL Plot Number: COW14B Location: Castaic TL

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: COW  
Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: X

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
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1	PLARAC	under	6	<del>20</del> 5	24	NW	26						
2	QUAGGR	over	42	60	55	SW	27						
3	PLARAC	under	6	20	30	SE	28						
4	PLARAC	under	6+4			SE	29						
5	DLARAC	under	3+5			SE	30						
6	PLARAC	under	8	15	25	NE	31						
7	PLARAC	under	8			NE	32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
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Percent Cover = (\_\_\_\_ (no. hits)/25) \* 100.

N-S: ± 0 0 0 ± ± ± ± ± ± ± ± ± ± ± E-W: 0 0 ± ± ± ± ± ± ± ± ± ± ±  
 (Center stake) 20/25 = 80%

Barn owl  
Woodpecker  
1 additional lrg Quercus just outside plot

# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP, AL Plot Number: COW14C Location: Castaic TL

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: COW  
Structure: Even-structure:  or Uneven-structure:

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
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Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	QVEAGR	over	42	20	35	NW	26						
2	QVEAGR	over	28	35	35	SW	27						
3	QVEAGR	over	0			SW	28						
4	QVEAGR	over	26	60	40	SE	29						
5	No trees					NE	30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

### OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100.

N-S: 0 0 0 0 0 0 + + + + 0 0      E-W: + + + + + + + 0 0 0 + +

→ multiple dead branches (Center stake)

19/25 = 76%

Smilo grass

10-3-18

CWHR HABITAT ELEMENT CHECKLIST

CRC 15

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

Juniper

ACORNS - Fruit of an oak	LAYER, HERBACEOUS >10% herb. understory I, O	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	LAYER, SHRUB >10% shrub understory I, O	SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.	LAYER, TREE >10% subcanopy trees O	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	LICHENS	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	LITHIC - Rock scatter <10" diam.	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border	LITTER - Residue <1" in diam. I, O	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg. within veg. area	LOG, LARGE (HOLLOW) >20" diam.	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit I, O	LOG, LARGE (ROTTEN) >20" diam.	SOIL, FRIABLE - Easily crumbled I, O
BIRDS, LARGE - > 450g (1lb) I, O	LOG, LARGE (SOUND) >20" diam.	SOIL, GRAVELLY - Gravel >3" diam I, O
BIRDS, MED. - 110-450g (4oz-1lb)  b                    I, O	LOG, MEDIUM (HOLLOW) 10-20" diam.	SOIL, ORGANIC - >20% organic matter (wght)
BIRDS, SMALL - < 110g (4oz) I, O	LOG, MEDIUM (ROTTEN) 10-20" diam.	SOIL, SALINE - Alkaline soils/veg.
BOGS - Low-lying, residue rich areas	LOG, MEDIUM (SOUND) 10-20" diam.	SOIL, SANDY - Sand .05-2mm diam. I, O
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	MAMMALS, <del>LARGE</del> I, O	SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.	MAMMALS, MED. - 110-2270g (4oz-5lb) I, O	SPRINGS, HOT
BURROW - Excavation made by animal I, O	MAMMALS, SMALL - < 110g (4oz) I, O	SPRINGS, MINERAL
CAMPGROUND	MOSS - Bryophytes	STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter	MUD FLATS - contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	NECTAR	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face	NEST BOX - Constructed nesting cavity	STUMP (ROTTEN) - snag <3m (10') high
CONES - From gymnosperm trees	NEST PLATFORM - Const. large platform	STUMP (SOUND) - snag <3m (10') high
DUFF - Non-structured decaying matter	NEST ISLAND - Man-made nesting island	TALUS - Slope from rock accumulation
DUMP - Sanitary landfill	NUTS - Hard-shelled, dry fruit.	TIDEPOOLS
EGGS - Any bird or reptile eggs	PACK STATION - with assoc. human use	TRANSMISSION LINES
FENCES - Any type O	PONDS - Permanent, <2ha (5 acres) surf. area	TREE LEAVES O
FERN - Spore-forming plants with fronds	REPTILES I, O	TREE, BROKEN LIVE TOP >11" dbh
FISH	RIPARIAN INCLUSION - Riparian veg. (small)	TREE, W/ CAVITIES
FLOWERS I, O	RIVERS - Perm., >6m (20') wide in dry season	TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons O	ROCK - Outcrop >10" diam.	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	ROOTS	TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.	SALT PONDS - Saline ponds	TREE/SHRUB - Interface O
GRAIN - A single, hard cereal seed	SAND DUNE	TREE/WATER - Interface
GRAMINOIDS - Grass-like plants I, O	SAP	TREES, FIR - <i>Abies sp.</i> >11" dbh
GRASS/AGRICULTURE - Interface	SEEDS - Other than listed above	TREES, HARDWOOD - >11" dbh O
GRASS/WATER - Interface	SHRUB/AGRICULTURE - Interface	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air I, O	SHRUB/GRASS - Interface	VERNAL POOLS
INSECTS, TERRESTRIAL I, O	SHRUB/WATER - Interface	WATER - Any source of free water
INVERTEBRATES I, O	SHRUBS - Woody plants, not trees I, O	WATER, FAST - Unsilted, >2ft/sec. flows
INVERTEBRATES, AQUATIC	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	WATER, SLOW - Some silt, flows < .5ft/sec.
KELP - Large, coarse, brown algae	SLASH, LARGE (SOUND) Residue 3-10" diam.	WATER/AGRICULTURE - Interface
LAKES - Permanent > 2ha (5 acres)	SLASH, SMALL Residue 1-3" diameter	WHARF

MINE - excavated for minerals

No redshank, just chamise

Areas (fingers) in CRC dom'd by

bunchgrass

ERIODICTION TRI +  
ERI FAG w/  
occasional  
Jun Cal

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10-3-18 Sample Crew: SA, DL Plot Number: 15A Location: Gorman Creek

Visual estimate before sampling; CWHR habitat type: CRC - no redshank

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≥ 12.0" <i>grasses</i>	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss	Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
0	ERI FAS	YS	2	37 in.	+						
1	ERI FAS	YS	2	37 in.	+	26					
2	"	"	"	"	+	27					
3					-	28					
4	ADEFAS	M	3	47 in.	+	29					
5	↓	↓	↓	↓	+	30					
6	↓	↓	↓	↓	+	31					
7	ADEFAS	D	4	56 in.	+	32					
8	↓	↓	↓	↓	+	33					
9	↓	↓	↓	↓	+	34					
10	ADEFAS	M	3	66 in.	+	35					
11	↓	↓	↓	↓	+	36					
12	↓	↓	↓	↓	+	37					
13	↓	↓	↓	↓	+	38					
14					-	39					
15	BROMUS	D	1	9 in.	+	40					
16	ADEFAS	M	3	67 in.	+	41					
17	↓	↓	↓	↓	+	42					
18	↓	↓	↓	↓	+	43					
19	↓	↓	↓	↓	+	44					
20	↓	↓	↓	↓	+	45					
21	↓	↓	↓	↓	+	46					
22	ADEFAS	D	4	51 in.	+	47					
23	↓	↓	↓	↓	+	48					
24	↓	↓	↓	↓	+	49					
25	↓	↓	↓	↓	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

Shrub Cover = 23/26  
Herb. Cover = 1/26

Other spp.:  
Rabbit pellets

BRO MAD

24/26 = 92%



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10-3-18 Sample Crew: DL <sup>JA, CRC</sup> Plot Number: 15B Location: Gorman Creek

Visual estimate before sampling; CWHR habitat type: CRC no redshank

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bucket)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0" <i>grasses</i>	< 1.5"	< 2 0'	S	Sparse cover	10 0-24 9% Shrub, 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1.5- 19 9"(PO) 1.5-5 9"(JT)	2 0'-9 9'	P	Open cover	25 0-39 9% Shrub, 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0'-19 9'	M	Mod. cover	40 0-59 9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0'	D	Dense cover	≥ 60 0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt	Species	Age	% Decadent	Ht. (in/ft)	hit or miss	Stem or Pt.	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
0	ADE FAS.	D	4	83 in.	+						
1	ADE FAS.	D	4	83 in.	+	26					
2					+	27					
3					+	28					
4					+	29					
5					-	30					
6	ADE FAS.	D	4	75 in.	+	31					
7					+	32					
8					+	33					
9	UNK. G			3 in.	+	34					
10	ADE FAS.	D	4	75 in.	+	35					
11					+	36					
12					+	37					
13	BRO MAD	D	1	6 in.	+	38					
14					-	39					
15					-	40					
16					-	41					
17	ADE FAS.	D	4	85 in.	+	42					
18					+	43					
19					+	44					
20					+	45					
21					+	46					
22					+	47					
23					+	48					
24					+	49					
25					+	50					

VEGETATION COVER MEASUREMENT

*22/26 = 85%*

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

collected HES WHI  
UNK. G (C) - Schismus?  
Rabbit pellets  
Eri. fas.  
other spp.: collected taller grass  
Opuntia (P) photo

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10-3-18 Sample Crew: SA1 DL Plot Number: 15C Location: Gorman Creek

Visual estimate before sampling; CWHR habitat type: CRC - no redshank

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above buds)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0" <i>grasses</i>	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss	Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
0	ADEFAS	D	4	75 in.	+						
1	ADEFAS	D	4	75 in.	+	26					
2					+	27					
3					+	28					
4					+	29					
5					+	30					
6					-	31					
7	UNK. HI	D	1	3 in.	+	32					
8	"	D	1	6 in.	+	33					
9					-	34					
10	ERI FAS.	YS	2	35 in.	+	35					
11					+	36					
12	ERI FAS.	YS	2	37 in.	+	37	HES WHI	D	4	108 in.	+
13					+	38	"	"	"	"	+
14	HES WHI	D	4	108 in.	+	39	ERI FAS.	YS	2	37 in.	+
15	ERI FAS.	YS	2	37 in.	+	40	HES WHI	D	4	108 in.	+
16	"	"	"	"	+	41					
17					-	42					
18					-	43					
19					-	44					
20					-	45					
21					-	46					
22					-	47					
23	JUN. CAL	M	3	12 FEET	+	48					
24					+	49					
25					+	50					

to the  
of dead  
info.

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

18/26 = 69%

UNK. HI = prickly herb.  
Other spp: Opuntia  
old dead Eri.fas. plants

CWHR HABITAT ELEMENT CHECKLIST

CRC 16



Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	O	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	O	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	O	LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
O	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
O	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	O	SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 3-3" diam.
O	BIRDS, MED. - 110-450g (4oz-1lb) 1b1111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght)
O	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	O	SOIL, SANDY - Sand 0.5-2mm diam.
	BRUSH PILE - >1m high, >15m <sup>2</sup> basal area	O	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	O	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
O	BURROW - Excavation made by animal	O	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	O	STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body	O	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	O	NECTAR		STREAMS, PERMANENT
O	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large e platform		STUMP (SOUND)-snag<3m (10') high
O	DUFF - Non-structured decaying mater		NEST ISLAND - Man-made nesting island	O	TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area	O	TREE LEAVES
	FERN - Spore-forming plants with fronds	O	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
O	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	O	TREE, W/ LOOSE BARK
O	FORDS - Herbaceous dicotyledons	O	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	O	TREE/SHRUB - Interface
O	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
O	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface	O	SEEDS - Other than listed above	O	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
O	INSECTS, FLYING - Insect eaten in air	O	SHRUB/GRASS - Interface		VERNAL POOLS
O	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
O	INVERTEBRATES	O	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted; >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)	O	SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

over →

CRC 16A

Chamise 15-20%  
Barnard 70%  
H. whip 1%  
Bare ground 5%  
Red shank absent

CRC 16B

Ridge by road & road: erifas 40%, ericra 20%, barnard 5-10%  
arena 3%.

Below/downhill north of ridge is Blue oak woodland. Further north across the stream on steep slope is mixed chaparral

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/13/18 Sample Crew: ICDL Plot Number: CRC-16C Location: \_\_\_\_\_

Visual estimate before sampling; CWHR habitat type: Palm Salt Marsh Scrub? CRC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulbe)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (m/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (m/ft)	hit or miss
1					-	26					
2					-	27					
3	bromel	4	4	2"	+	28					
4					-	29					
5					-	30					
6					-	31					
7	bromel	4	4	4	+	32					
8	bromel	4	4	6	+	33					
9					-	34					
10	bromel	4	4	6	+	35					
11	bromel	4	4	7	+	36					
12	crypt	4	4	7	+	37					
13	bromel	4	4	13	+	38					
14	eritas	3	4	33	+	39					
15	eritas	3	4	33	+	40					
16	atr can	3	2	72	+	41					
17						42					
18						43					
19						44					
20						45					
21	bromel	4	4	6	+	46					
22	bromel	4	4	4	+	47					
23					-	48					
24	bromel	4	4	6	+	49					
25	bromel	4	4	6	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

18/26 = 69%

Fire near Eriochloa grass this year  
Cont melt (earth filer)

Overall Adaptation ca 20-30%  
CRC across back in dist (Chenopod)

CRC 17

CWHR HABITAT ELEMENT CHECK LIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

I	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border		LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.	O	SOIL, GRAVELLY - Gravel 8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) 1b11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	O	SOIL, SANDY - Sand, 0.5-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	I	STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body	O	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
O	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area	O	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	O	TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	O	TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	O	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS	O	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	I	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsalted; >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

\*lg eucalyptus trees throughout canyon bottom



near burn edge

→ CRC 17 → original burned

more info @ actual point → unsure if burned

Similar species comp to across road but much denser

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

took plots here just in case

Date: 10/17/18 Sample Crew: LP Plot Number: Location: CRC 17A Castaic TL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHIR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above hollow)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dom

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss
1	ART SP	M	3	34	+	20	BROMAD	D	1	4	+
2						27					
3						28					
4						29					
5	ERIFAS	D	4	34	+	30	BROMAD	D	1	5	+
6	"	M	3	39	+	31	BROMAD	D	1	4	+
7	"	"	"	"	"	32					
8	SALMEL	M	3	42	+	33	BROMAD	D	1	4	+
9						34					
10						35					
11	BROMAD	D	1	4	+	36					
12						37					
13	BROMAD	D	1	6	+	38					
14	ERIFAS	M	3	31	+	39	BROMAD	D	1	6	+
15						40					
16						41					
17						42					
18	Dead shrub	D	4	32	+	43					
19	"	"	"	"	"	44					
20	ERIFAS	D	4	27	+	45					
21						46					
22						47					
23	BROMAD	D	1	11	+	48					
24	BLVDIA	D	1	4	+	49					
25						50					

ART CAL ←

SALMEL ←  
= SALLEN

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

22/26 = 85%

California towhee  
Crow  
house finch  
song sparrow

large eucalyptus growing  
down center of canyon  
Tamarix ramosissima  
Atriplex canescens

ridge / slope

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP Plot Number: CR17B Location: Castaic TL  
AL  
 Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above budset)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0"	S	Sparse cover	10 0-24 9% Shrub, 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1 5- 19 9"(PO) 1 5-5 9"(JT)	2 0-9 9"	P	Open cover	25 0-39 9% Shrub, 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0-19 9"	M	Mod. cover	40 0-59 9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0"	D	Dense cover	≥ 60 0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht (m/ft)	hit or miss
1	↓	↓	↓	↓	↓	20	ERIFAS	M	3	31	+
2	↓	↓	↓	↓	↓	27					
3	Dead shrub			24	+	28					
4	↓				↓	29	BRODIA	D	2	12	+
5	↓				↓	30	"	D	1	8	+
6	BROMAD	D	1	2	+	31					
7					-	32					
8	BROMAD	D	1	4	+	33					
9	BROMAD	D	1	3	+	34					
10	BRODIA	D	1	5	+	35					
11	BROMAD	D	1	3	+	36					
12	ERIFAS	M	3	31	+	37	BRODIA	D	1	2	+
13	↓				↓	38	"	D	1	5	+
14	↓				↓	39	BROMAD	D	1	8	+
15	↓				↓	40	"	D	1	6	+
16	↓				↓	41	BRODIA	D	1	12	+
17	BROMAD	D	1	4	+	42					
18	BRODIA	D	1	8	+	43					
19	"	D	1	6	+	44					
20	Dead shrub			19	+	45	BROMAD	D	1	8	+
21	↓				↓	46	"	D	2	12	+
22	↓				↓	47	"	D	1	7	+
23					-	48					
24	ERIFAS	M	3	47	+	49	BROMAD	D	1	7	+
25	"	"	"	"	"	50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

24/26 = 92%

Some scattered decadent scrub oak  
*Q. berberidifolia*

ridge

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP Plot Number: CR17C Location: Castaic TL  
AL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	SALMEL	M	3	79	+	26	POASEC	D	2	12	+
2	↓				↓	27	POASEC	D	2	19	+
3						28					
4	↓				↓	29					
5	ART ST.	M	3	40	+	30					
6	ERIFAS	M	3	31	+	31					
7						32					
8	↓				↓	33	BRODIA	D	1	6	+
9	↓				↓	34					
10	ERIFAS	M	3	32	+	35					
11	BROMAD	D	1	3	+	36					
12	BRODIA	D	1	6	+	37					
13	SALMEL	D	4	54	+	38					
14					-	39					
15					-	40					
16					-	41					
17					-	42					
18					-	43					
19	ERIFAS	M	3	29	+	44					
20	↓				↓	45					
21						46					
22	↓				↓	47					
23	↓				↓	48					
24	ERIFAS	M	3	29	+	49	BROMAD	D	1	6	+
25	"	"	"	"	"	50	BROMAD	D	1	6	+

SALMEL = SALLEN

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

21/26 = 81%

Eriodictyon crass  
Poa secunda  
(same other species as prev. plots)

10/4/2018 IC/DL

CWHR HABITAT ELEMENT CHECKLIST

CRC 18A

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	10	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	10	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT	10	LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	10	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
0	BANK - Cut, hollow or lake border	10	LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
0	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 3-3" diam.
10	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
10	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	10	SOIL, SANDY - Sand 0.5-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	10	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
0	BUILDINGS - Houses, sheds, etc.	10	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
10	BURROW - Excavation made by animal	10	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND	10	MOSS - Bryophytes	0	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body	0	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	10	NECTAR		STREAMS, PERMANENT
0	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
0	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
10	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
0	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area		TREE LEAVES
	FERN - Spore-forming plants with fronds	10	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
10	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
10	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
10	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
10	GRAMINOIDS - Grass-like plants	0	SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface	10	SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface	0	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
10	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
10	INSECTS, TERRESTRIAL	0	SHRUB/WATER - Interface	0	WATER - Any source of free water
10	INVERTEBRATES	10	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted; >2ft/sec. flows
0	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.	0	WATER, SLOW - Some silt., flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
0	LAKES - Permanent > 2ha (5 acres)	10	SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/4/2018 Sample Crew: 10/DL Plot Number: CRC 18A/18B Location: Castaic Lagoon  
 Visual estimate before sampling; CWHR habitat type: Chamise Chaparral CRC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above hollow)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

0 salmel 3 4 50 + 0

18A Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines. 18B

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss	
1	salmel	5	4	50	+	26	1				-	
2	salmel	3	4	59	+	27	2				-	
3	↓	↓	↓	↓	↓	28	3	artcal	3	4	45	+
4	↓	↓	↓	↓	↓	29	4	↓	↓	↓	↓	↓
5	↓	↓	↓	↓	↓	30	5	↓	↓	↓	↓	↓
6	↓	↓	↓	↓	↓	31	6	↓	↓	↓	↓	↓
7	salmel	3	4	54	+	32	7	↓	↓	↓	↓	↓
8	↓	↓	↓	↓	↓	33	8	↓	↓	↓	↓	↓
9	↓	↓	↓	↓	↓	34	9	↓	↓	↓	↓	↓
10	↓	↓	↓	↓	↓	35	10	↓	↓	↓	↓	↓
11	↓	↓	↓	↓	↓	36	11	↓	↓	↓	↓	↓
12	↓	↓	↓	↓	↓	37	12	↓	↓	↓	↓	↓
13	salmel	3	4	38	+	38	13	artcal	3	4	38	+
14	↓	↓	↓	↓	↓	39	14	↓	↓	↓	↓	↓
15	↓	↓	↓	↓	↓	40	15	↓	↓	↓	↓	↓
16	↓	↓	↓	↓	↓	41	16	artcal	3	4	40	+
17	adnfasc	3	3	28	+	42	17	↓	↓	↓	↓	↓
18	↓	↓	↓	↓	↓	43	18	↓	↓	↓	↓	↓
19	↓	↓	↓	↓	↓	44	19	↓	↓	↓	↓	↓
20	↓	↓	↓	↓	↓	45	20	↓	↓	↓	↓	↓
21	↓	↓	↓	↓	↓	46	21	artcal	4	4	18	+
22	↓	↓	↓	↓	↓	47	22	↓	↓	↓	↓	↓
23	adnfasc	3	3	7ft	+	48	23	salmel	3	4	54	+
24	adnfasc	3	3	48	+	49	24	sallpu	3	2	30	+
25	↓	↓	↓	↓	↓	50	25	↓	↓	↓	↓	↓

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover = (# veg. hits/25 or 30) \* 100

artcal dominates crown/mids, elsewhere this is Chamise

ADNFAS = Adenostoma fasc.

A - 20/26 = 77%

B - 18/26 = 69%

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: DLIC Plot Number: CRC18C Location: Castaic Lagoon

Visual estimate before sampling; CWHR habitat type: Mix Chap CSC → isolated area near road, overall area = CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1.5"	< 2 0"	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12 1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2 0'-9 9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0'-19 9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0'	D	Dense cover	≥ 60 0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	<del>ceano</del>	3	3	8'+	+	26					
2	curatals					27					
3						28					
4						29					
5						30					
6						31					
7						32					
8	bracted	4	4	8	+	33					
9						34					
10						35					
11	artical	3	3	47	+	36					
12						37					
13						38					
14						39					
15						40					
16						41					
17	artical	3	3	54	+	42					
18						43					
19						44					
20	artical	3	3	56	+	45					
21						46					
22	erifas	3	3	50	+	47					
23	artical	3	3	56	+	48					
24						49					
25						50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

23/26 = 88%

*Quercus berberica* Erigeron fasciatus Hieracium Centaurea melitensis Silene  
Aster sp. from road  
Chenopodium sp. 50' from road



CRC 19

### CWHR HABITAT ELEMENT CHECK LIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	LAYER, HERBACEOUS >10% herb. understory	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	LAYER, SHRUB >10% shrub understory	SNAG, LARGE (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.	LAYER, TREE >10% subcanopy trees	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	LICHENS	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	LITHIC - Rock scatter <10" diam.	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border	LITTER - Residue <1" indiam.	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg. within veg. area	LOG, LARGE (HOLLOW) >20" diam.	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit	LOG, LARGE (ROTTEN) >20" diam.	SOIL, FRIABLE - Easily crumbled
BIRDS, LARGE - > 450g (1lb)	LOG, LARGE (SOUND) >20" diam.	SOIL, GRAVELLY - Gravel 2-3" diam.
BIRDS, MED. - 110-450g (4oz-1lb) lb11111111	LOG, MEDIUM (HOLLOW) 10-20" diam.	SOIL, ORGANIC - >20% organic matter (wght.)
BIRDS, SMALL - < 110g (4oz)	LOG, MEDIUM (ROTTEN) 10-20" diam.	SOIL, SALINE - Alkaline soils/veg.
BOGS - Low-lying, residue rich areas	LOG, MEDIUM (SOUND) 10-20" diam.	SOIL, SANDY - Sand 0.5-2mm diam.
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	MAMMALS, LARGE - > 2270g (5lb.)	SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.	MAMMALS, MED. - 110-2270g (4oz-5lb)	SPRINGS, HOT
BURROW - Excavation made by animal	MAMMALS, SMALL - < 110g (4oz)	SPRINGS, MINERAL
CAMPGROUND	MOSS - Bryophytes	STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter	MUD FLATS - contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	NECTAR	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face	NEST BOX - Constructed nesting cavity	STUMP (ROTTEN) snag <3m (10') high
CONES - From gymnosperm trees	NEST PLATFORM - Const. large platform	STUMP (SOUND) snag <3m (10') high
DUFF - Non-structured decaying matter	NEST ISLAND - Man-made nesting island	TALUS - Slope from rock accumulation
DUMP - Sanitary landfill	NUTS - Hard-shelled, dry fruit.	TIDEPOOLS
EGGS - Any bird or reptile eggs	PACK STATION - with assoc. human use	TRANSMISSION LINES
FENCES - Any type	PONDS - Permanent, <2ha (5 acres) surf. area	TREE LEAVES
FERN - Spore-forming plants with fronds	REPTILES	TREE, BROKEN LIVE TOP >11" dbh
FISH	RIPARIAN INCLUSION - Riparian veg. (small)	TREE, W/ CAVITIES
FLOWERS	RIVERS - Perm., >6m (20') wide in dry season	TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons	ROCK - Outcrop >10" diam.	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	ROOTS	TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.	SALT PONDS - Saline ponds	TREE/SHRUB - Interface
GRAIN - A single, hard cereal seed	SAND DUNE	TREE/WATER - Interface
GRAMINOIDS - Grass-like plants	SAP	TREES, FIR - <i>Abies sp.</i> >11" dbh
GRASS/AGRICULTURE - Interface	SEEDS - Other than listed above	TREES, HARDWOOD - >11" dbh
GRASS/WATER - Interface	SHRUB/AGRICULTURE - Interface	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air	SHRUB/GRASS - Interface	VERNAL POOLS
INSECTS, TERRESTRIAL	SHRUB/WATER - Interface	WATER - Any source of free water
INVERTEBRATES	SHRUBS - Woody plants, not trees	WATER, FAST - Unsilted, >2ft/sec. flows
INVERTEBRATES, AQUATIC	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	WATER, SLOW - Some silt; flows < .5ft/sec.
KELP - Large, coarse, brown algae	SLASH, LARGE (SOUND) Residue 3-10" diam.	WATER/AGRICULTURE - Interface
LAKES - Permanent > 2ha (5 acres)	SLASH, SMALL Residue 1-3" diameter	WHARF

MINE - excavated for minerals

area has some human disturbance shrubs somewhat small

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/4/18 Sample Crew: LP Plot Number: CRC 19A Location: Templin Highway

Visual estimate before sampling; CWHR habitat type: AL CPE - chamise

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above juliet)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0'	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 20.0-99% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1'	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

patci

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/R)	hit or miss
1	CHA	M	3	51	+	160	CHA	M	3	32	+
2	↓				+	27					
3	↓				+	28					
4	CHA	M	3	48	+	29					
5	CHA	M	3	53	+	30					
6	CHA	M	3	60	+	31					
7	↓				+	32					
8	CHA	M	3	56	+	33					
9	CHA	M	3	55	+	34					
10					-	35					
11	CHA	M	3	52	+	36					
12	CHA	M	3	46	+	37					
13	CHA	M	3	39	+	38					
14	↓				+	39					
15	CHA			24	+	40					
16					-	41					
17	CHA	M	3	46	+	42					
18	CHA	M	3	49	+	43					
19	↓				+	44					
20					-	45					
21	CHA	M	3	57	+	46					
22	↓				+	47					
23	↓				+	48					
24	CHA	M	3	64	+	49					
25	↓				+	50					

all semi-young

CHA - chamise = *Adenostoma fasciculatum*  
VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

23/26 = 88%

*Cercocarpus* bet.

chamise  
manzanita ARCG  
*Hesperoyucca*  
~~*Palafoxia*~~  
*riogonum fasc.*

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/4/18 Sample Crew: LP AL Plot Number: CRC19B Location: Templin Highway  
 Visual estimate before sampling; CWHR habitat type: CPL - chamise

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

patch

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (m/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss
1	CHA	M	3	45	+	20	CHA			65	+
2	↓				↓	27					
3	↓				↓	28					
4	↓				↓	29					
5	CHA			66	+	30					
6	↓				↓	31					
7	↓				↓	32					
8	↓				↓	33					
9	CHA			62	+	34					
10	CHA			65	+	35					
11	↓				↓	36					
12	↓				↓	37					
13	↓				↓	38					
14	↓				↓	39					
15					-	40					
16	CHA			78	+	41					
17	"			"	"	42					
18					-	43					
19					-	44					
20	CHA			52	+	45					
21	↓				↓	46					
22	↓				↓	47					
23	↓				↓	48					
24	CHA			43	+	49					
25	"			"	"	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

CHA = ADE FAS

23/26 = 88%

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/4/18 Sample Crew: LP Plot Number: CRC19C Location: Templeton Highway  
 Visual estimate before sampling; CWHR habitat type: CRC cham:sc

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0"	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12 1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9"	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9"	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0"	D	Dense cover	≥ 60.0% all types

patc

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/R)	hit or miss
Hespero 2	Yucca	M	3	28	+	26					-
3	↓			↓	+	27					
4	CHA	M	3	37	+	28					
5	Sage	D	4	36	+	29					
6	Yucca	M	3	42	+	30					
7	↓			↓		31					
8	↓			↓		32					
9	CHA	M	3	39	+	33					
10	Sage	D	4	32	+	34					
11					-	35					
12					-	36					
13	Sage	D	4	31	+	37					
14					-	38					
15	CHA	D	4	38	+	39					
16	CHA	M	3	35	+	40					
17	↓			↓		41					
18	↓			↓		42					
19	CHA	M	3	25	+	43					
20					-	44					
21	Sant M	D	4	52	+	45					
22	CHA	M	3	47	+	46					
23	"	"	"	"	"	47					
24	CHA	M	3	52	+	48					
25	"	"	"	"	"	49					
						50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

22/26 = 85%

Sage = salvia leucophylla  
 CHA = ADE-FAS

10-3-18 SAJDL

CWHR HABITAT ELEMENT CHECKLIST

CSC-20 ✓  
 ↳ NOT CSC = MAG  
 CPC  
 ADEFAS domain

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	LAYER, HERBACEOUS >10% herb. understory I, O	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	LAYER, SHRUB >10% shrub understory I, O	SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.	LAYER, TREE >10% subcanopy trees	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	LICHENS I	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	LITHIC - Rock scatter <10" diam.	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border	LITTER - Residue <1" diam. I, O	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg. within veg. area	LOG, LARGE (HOLLOW) >20" diam.	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit	LOG, LARGE (ROTTEN) >20" diam.	SOIL, FRIABLE - Easily crumbled I, O
BIRDS, LARGE - > 450g (1lb) I, O	LOG, LARGE (SOUND) >20" diam.	SOIL, GRAVELLY - Gravel 8-3" diam I, O
BIRDS, MED. - 110-450g (4oz-1lb) (b l l l l l l l) I, O	LOG, MEDIUM (HOLLOW) 10-20" diam	SOIL, ORGANIC - >20% organic matter (wght.)
BIRDS, SMALL - < 110g (4oz) I, O	LOG, MEDIUM (ROTTEN) 10-20" diam.	SOIL, SALINE - Alkaline soils/veg.
BOGS - Low-lying, residue rich areas	LOG, MEDIUM (SOUND) 10-20" diam.	SOIL, SANDY - Sand 0.5-2mm diam I, O
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	MAMMALS, LARGE - > 2270g (5lb.) I, O	SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.	MAMMALS, MED. - 110-2270g (4oz-5lb) I, O	SPRINGS, HOT
BURROW - Excavation made by animal I, O	MAMMALS, SMALL - < 110g (4oz) I, O	SPRINGS, MINERAL
CAMPGROUND	MOSS - Bryophytes <i>Empetrum</i> I, O	STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter	MUD FLATS - contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	NECTAR	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face	NEST BOX - Constructed nesting cavity	STUMP (ROTTEN) - snag < 3m (10') high
CONES - From gymnosperm trees	NEST PLATFORM - Const. large platform	STUMP (SOUND) - snag < 3m (10') high
DUFF - Non-structured decaying matter	NEST ISLAND - Man-made nesting island	TALUS - Slope from rock accumulation
DUMP - Sanitary landfill	NUTS - Hard-shelled, dry fruit.	TIDEPOLLS
EGGS - Any bird or reptile eggs	PACK STATION - with assoc. human use	TRANSMISSION LINES
FENCES - Any type	PONDS - Permanent, < 2ha (5 acres) surf area	TREE LEAVES I, O
FERN - Spore-forming plants with fronds	REPTILES (suitable) I, O	TREE, BROKEN LIVE TOP > 11" dbh
FISH	RIPARIAN INCLUSION - Riparian veg. (small)	TREE, W/ CAVITIES
FLOWERS 0	RIVERS - Perm., > 6m (20') wide in dry season	TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons 0	ROCK - Outcrop > 10" diam.	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit 0 Juniper	ROOTS	TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.	SALT PONDS - Saline ponds	TREE/SHRUB - Interface 0
GRAIN - A single, hard cereal seed	SAND DUNE	TREE/WATER - Interface
GRASSMINIDS - Grass-like plants I, O	SAP	TREES, FIR - <i>Abies sp.</i> > 11" dbh
GRASS/AGRICULTURE - Interface	SEEDS - Other than listed above	TREES, HARDWOOD - > 11" dbh 0
GRASS/WATER - Interface	SHRUB/AGRICULTURE - Interface	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air I, O	SHRUB/GRASS - Interface	VERNAL POOLS
INSECTS, TERRESTRIAL I, O	SHRUB/WATER - Interface	WATER - Any source of free water
INVERTEBRATES I, O	SHRUBS - Woody plants, not trees I, O	WATER, FAST - Unstilled, > 2ft/sec. flows
INVERTEBRATES, AQUATIC	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	WATER, SLOW - Some silt; flows < 5ft/sec.
KELP - Large, coarse, brown algae	SLASH, LARGE (SOUND) Residue 3-10" diam.	WATER/AGRICULTURE - Interface
LAKES - Permanent > 2ha (5 acres)	SLASH, SMALL Residue 1-3" diameter	WHARF

Encountered  
 on walk from  
~~plots~~ to these  
 plots  
 CRC15

*Ernstium* c.f. *Sapphirinum*  
*Prunus ilicifolia*  
*Salvia columbariae*  
 Deer

Rabbit pellets

MINE - excavated for minerals



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: SA DL Plot Number: 30A Location: Gorman Creek

Visual estimate before sampling; CWHR habitat type: MCH CRC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bulge)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0" <i>grasses</i>	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5" - 19.9" (PO) 1.5 - 5.9" (JT)	2.0' - 9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0' - 19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss	Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	ADE. FAS.	D	4	73 in.	+	26					
2					+	27					
3					+	28					
4	ADE. FAS.	D	4	88 in.	+	29					
5					+	30					
6					+	31					
7					+	32					
8					+	33					
9	BROMUS	D	4	3 in.	+	34					
10	ERIPIN	D	4	32 in.	+	35					
11	"	"	"	"	+	36					
12	ADE. FAS.	D	4	74 in.	+	37					
13					+	38					
14					+	39					
15					+	40					
16					+	41					
17					+	42					
18					+	43					
19					+	44					
20	ADE. FAS.	D	4	84 in.	+	45					
21	BRO. MAD.	D	1	6 in.	+	46					
22	"	"	"	6 in.	+	47					
23	"	"	"	6 in.	+	48					
24	"	"	"	10 in.	+	24	QUE. SP.	D	4	8 FEET	+
25	"	"	"	11 in.	+	25	"	D	4	"	+

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

26/26 = 100%

Rabbit pellets  
BRO. MAD  
Opuntia *basilaris*  
Dendrobium on oak  
Lonicera  $\frac{4}{4}$   
QUE. SP. (P), collected lvs. bluish green, fuzzy on top, lighter green on bottom



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/19 Sample Crew: SA, DL Plot Number: 203 Location: Goman Creek

Visual estimate before sampling; CWHR habitat type: MCH CRC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above buttess)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	<u>≤ 12.0"</u> <i>grasses</i>	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-19.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
<u>3</u>	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	<u>M</u>	Mod cover	40.0-59.9% all types
<u>4</u>	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt	Species	Age	% Decadent	Ht. (m/R)	hit or miss	Stem or Pt	Species	Age	% Decadent	Ht. (m/R)	hit or miss
1	ADE.FAS.	<del>D</del>	<del>4</del>	75 in.	+	26					
2	<del>ADE.FAS.</del>					27					
3						28					
4	ADE.FAS.	m	3	69 in.	+	29					
5						30					
6	ADE.FAS.	m	3	69 in.	+	31					
7	"	"	"	"	+	32					
8	"	M	3	72 in.	+	33					
9						34					
10	ADE.FAS.	m	3	72 in.	+	35					
11	"	"	"	"	+	36					
12	ADE.FAS.	D	4	68 in.	+	37					
13						38					
14						39					
15						40					
16						41					
17						42					
18	ADE.FAS.	m	3	66 in.	+	43					
19	"	"	"	"	+	44					
20	ADE.FAS.	m	3	80 in.	+	45					
21						46					
22						47					
23						48					
24	JUN.CAL	m	3	<del>68 in.</del>	+	49					
25	"	"	"		+	50					

8 FEET TALL  
VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$\frac{22}{26} = 85\%$

Arctostaphylos nearby, outside plot

sandy openings  
not really  
captured in  
transect  
so shrubs can  
likely > 40-6  
noted above

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10-3-18 Sample Crew: SA1 DL Plot Number: 20C Location: Goman Creek

Visual estimate before sampling; CWHR habitat type: METH CRC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above julge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0" <i>grasses</i>	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht. (m/R)	hit or miss	Stem or Pt #	Species	Age	% Decadent	Ht. (m/R)	hit or miss
1	↓	↓	4	84 in.	+	26					
2	↓	↓			+	27	Bromus	D	1	7 in.	+
3	↓	↓			+	28					
4	↓	↓			+	29					
5	↓	↓			+	30					
6	↓	↓			+	31					
7	↓	↓			+	32					
8	↓	↓			+	33					
9	↓	↓			+	34					
10	↓	↓			+	35					
11	↓	↓			+	36	Bromus	D	1	4 in.	+
12	↓	↓			+	37					
13	↓	↓			+	38					
14	↓	↓			+	39					
15	↓	↓			+	40					
16	↓	↓			+	41					
17	↓	↓			+	42					
18	↓	↓			+	43					
19	Bromus	D	1	13 in.	+	44					
20	"	D	1	9 in.	+	45					
21	"	D	1	7 in.	+	46					
22					+	47					
23	Bromus	D	1	10 in.	+	48	Arcto	D	4	20 in.	+
24	Arcto	D	4	20 in.	+	49	Bromus	D	1	9 in.	+
25	"	D	1	11 in.	+	50	"	D	1	9 in.	+

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

*Arctostaphylos glauca*  
(P)

19/26 = 73%

Lessingia (C)  
Ant Colony in plot  
Deer scat  
Rabbit scat

Encarnenia  
Stephanomena  
Opuntia  
Stipa? (collected)

SA1 Column  
MARAH MAC

### CWHR HABITAT ELEMENT CHECKLIST

CSC 21

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/> ACORNS - Fruit of an oak	<input type="checkbox"/> LAYER, HERBACEOUS >10% herb understory	<input type="checkbox"/> SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/> ALGAE - Any algae other than kelp	<input type="checkbox"/> LAYER, SHRUB >10% shrub understory	<input type="checkbox"/> SNAG, LARGE, (SOUND) >30" dbh
<input type="checkbox"/> AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/> LAYER, TREE >10% subcanopy trees	<input type="checkbox"/> SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/> AQUATICS, EMERGENT	<input type="checkbox"/> LICHENS	<input type="checkbox"/> SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/> AQUATICS, SUBMERGED	<input type="checkbox"/> LITHIC - Rock scatter <10" diam.	<input type="checkbox"/> SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/> BANK - Cut, hollow or lake border	<input type="checkbox"/> LITTER - Residue <1" indiam	<input type="checkbox"/> SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/> BARREN - Devoid of veg. within veg. area	<input type="checkbox"/> LOG, LARGE (HOLLOW) >20" diam.	<input type="checkbox"/> SOIL, ACRATED - Well drained
<input type="checkbox"/> BERRIES - Small, pulpy fruit	<input type="checkbox"/> LOG, LARGE (ROTTEN) >20" diam.	<input type="checkbox"/> SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/> BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/> LOG, LARGE (SOUND) >30" diam.	<input type="checkbox"/> SOIL, GRAVELLY - Gravel 3-3" diam
<input type="checkbox"/> BIRDS, MED. - 110-450g (4oz-1lb) (b1111111)	<input type="checkbox"/> LOG, MEDIUM (HOLLOW) 10-20" diam	<input type="checkbox"/> SOIL, ORGANIC - > 20% organic matter (wght)
<input type="checkbox"/> BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/> LOG, MEDIUM (ROTTEN) 10-20" diam	<input type="checkbox"/> SOIL, SALINE - Alkaline soils/veg.
<input type="checkbox"/> BOGS - Low-lying, residue rich areas	<input type="checkbox"/> LOG, MEDIUM (SOUND) 10-20" diam.	<input type="checkbox"/> SOIL, SANDY - Sand 0.5-2mm diam
<input type="checkbox"/> BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/> MAMMALS, LARGE - > 2270g (5lb.)	<input type="checkbox"/> SPRINGS - Freshwater springs, seeps
<input type="checkbox"/> BUILDINGS - Houses, sheds, etc.	<input type="checkbox"/> MAMMALS, MED. - 110-2270g (4oz-5lb)	<input type="checkbox"/> SPRINGS, HOT
<input type="checkbox"/> BURROW - Excavation made by animal	<input type="checkbox"/> MAMMALS, SMALL - < 110g (4oz)	<input type="checkbox"/> SPRINGS, MINERAL
<input type="checkbox"/> CAMPGROUND	<input type="checkbox"/> MOSS - Bryophytes	<input type="checkbox"/> STEEP SLOPE - Slopes > 50%
<input type="checkbox"/> CARRION - Any dead animal matter	<input type="checkbox"/> MUD FLATS - contiguous with water body	<input type="checkbox"/> STREAMS, INTERMITTENT
<input type="checkbox"/> CAVE - Natural chamber open to surface	<input type="checkbox"/> NECTAR	<input type="checkbox"/> STREAMS, PERMANENT
<input type="checkbox"/> CLIFF - Steep, vertical overhanging face	<input type="checkbox"/> NEST BOX - Constructed nesting cavity	<input type="checkbox"/> STUMP (ROTTEN) - snag <= 3m (10') high
<input type="checkbox"/> CONES - From gymnosperm trees	<input type="checkbox"/> NEST PLATFORM - Const. large platform	<input type="checkbox"/> STUMP (SOUND) - snag <= 3m (10') high
<input type="checkbox"/> DUFF - Non-structured decaying mater	<input type="checkbox"/> NEST ISLAND - Man-made nesting island	<input type="checkbox"/> TALUS - Slope from rock accumulation
<input type="checkbox"/> DUMP - Sanitary landfill	<input type="checkbox"/> NUTS - Hard-shelled, dry fruit.	<input type="checkbox"/> TIDEPOOLS
<input type="checkbox"/> EGGS - Any bird or reptile eggs	<input type="checkbox"/> PACK STATION - with assoc. human use	<input type="checkbox"/> TRANSMISSION LINES
<input type="checkbox"/> FENCES - Any type	<input type="checkbox"/> PONDS - Permanent, <2ha (5 acres) surf. area	<input type="checkbox"/> TREE LEAVES
<input type="checkbox"/> FERN - Spore-forming plants with fronds	<input type="checkbox"/> REPTILES	<input type="checkbox"/> TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/> FISH	<input type="checkbox"/> RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/> TREE, W/ CAVITIES
<input type="checkbox"/> FLOWERS	<input type="checkbox"/> RIVERS - Perm., >6m (20') wide in dry season	<input type="checkbox"/> TREE, W/ LOOSE BARK
<input type="checkbox"/> FORBS - Herbaceous dicotyledons	<input type="checkbox"/> ROCK - Outcrop >10" diam.	<input type="checkbox"/> TREE/AGRICULTURE - Interface
<input type="checkbox"/> FRUITS - Pulpy fruit	<input type="checkbox"/> ROOTS	<input type="checkbox"/> TREE/GRASS - Interface
<input type="checkbox"/> FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/> SALT PONDS - Saline ponds	<input type="checkbox"/> TREE/SHRUB - Interface
<input type="checkbox"/> GRAIN - A single, hard cereal seed	<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREE/WATER - Interface
<input type="checkbox"/> GRAMINOIDS - Grass-like plants	<input type="checkbox"/> SAP	<input type="checkbox"/> TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/> GRASS/AGRICULTURE - Interface	<input type="checkbox"/> SEEDS - Other than listed above	<input type="checkbox"/> TREES, HARDWOOD - >11" dbh
<input type="checkbox"/> GRASS/WATER - Interface	<input type="checkbox"/> SHRUB/AGRICULTURE - Interface	<input type="checkbox"/> TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input type="checkbox"/> INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/> SHRUB/GRASS - Interface	<input type="checkbox"/> VERNAL POOLS
<input type="checkbox"/> INSECTS, TERRESTRIAL	<input type="checkbox"/> SHRUB/WATER - Interface	<input type="checkbox"/> WATER - Any source of free water
<input type="checkbox"/> INVERTEBRATES	<input type="checkbox"/> SHRUBS - Woody plants, not trees	<input type="checkbox"/> WATER, FAST - Unsitd.; >2ft/sec. flows
<input type="checkbox"/> INVERTEBRATES, AQUATIC	<input type="checkbox"/> SLASH, LARGE (ROTTEN) Residue 3-10" diam.	<input type="checkbox"/> WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/> JETTY - Rock/concrete extending into water	<input type="checkbox"/> SLASH, LARGE (HOLLOW) Residue 3-10" diam.	<input type="checkbox"/> WATER, SLOW - Some silt; flows < .5ft/sec.
<input type="checkbox"/> KELP - Large, coarse, brown algae	<input type="checkbox"/> SLASH, LARGE (SOUND) Residue 3-10" diam.	<input type="checkbox"/> WATER/AGRICULTURE - Interface
<input type="checkbox"/> LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/> SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/> WHARF

MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: DLZC Plot Number: CSC 21A Location: Templin Highway

Visual estimate before sampling; CWHR habitat type: CRC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bulge)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	<b>P</b>	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
<b>3</b>	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht (m/f)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (m/f)	hit or miss
1	malden	4	4	48	+	26					
2	↓	↓	↓	↓	↓	27					
3	↓	↓	↓	↓	↓	28					
4	↓	↓	↓	↓	↓	29					
5	↓	↓	↓	↓	↓	30					
6	↓	↓	↓	↓	↓	31					
7	↓	↓	↓	↓	↓	32					
8	bramad	4	4	3	+	33					
9					-	34					
10					-	35					
11					-	36					
12	adefas	3	2	50	+	37					
13	↓	↓	↓	↓	↓	38					
14	↓	↓	↓	↓	↓	39					
15	↓	↓	↓	↓	↓	40					
16	↓	↓	↓	↓	↓	41					
17	↓	↓	↓	↓	↓	42					
18	↓	↓	↓	↓	↓	43					
19	↓	↓	↓	↓	↓	44					
20	↓	↓	↓	↓	↓	45					
21					-	46					
22	bramad	4	4	5	+	47					
23	bramad	4	4	8	+	48					
24	bramad	4	4	8	+	49					
25	avetot	4	4	18	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

22/26 = 85%

addsp: *Quercus w/ las acinus* (I am has picture), *s. leucophylla*  
**MALDEN = *Malacothamnus densiflorus***

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/31/15 Sample Crew: DLIC Plot Number: CSC 213 / 21 C Location: Templin Highway

Visual estimate before sampling; CWHR habitat type: Therax ch-p CRU

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHIR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht.)	CWHR Class	WHIR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

CSC 213

CSC 21C

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines. 0 malden 4 4 72 +

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)
1					—	26 1	malden	4	4	77	+
2					—	27 2	brumad	4	4	6	+
3					—	28 3					
4					—	29 4					
5					—	30 5					
6					—	31 6					
7	adefas	3	3	42	+	32 7					
8	↓	↓	↓	↓	↓	33 8					
9	adefas	3	3	42	+	34 9					
10	adefas	3	3	42	+	35 10					
11	erifat	4	4	10	+	36 11	brumad	4	4	6	+
12					—	37 12					+
13					—	38 13					+
14	brumad	4	4	6	+	39 14					+
15	brumad	4	4	6	+	40 15					—
16	erifat	4	4	6	+	41 16					—
17	↓	↓	↓	↓	↓	42 17	brumad	4	4	6	+
18					—	43 18	brumad	4	4	10	+
19	salleu	3	3	36	+	44 19	brumad	4	4	17	+
20	adefas	3	2	61	+	45 20					+
21					—	46 21	adefas	3	3	84	+
22					—	47 22					—
23					—	48 23					—
24					—	49 24					—
25					—	50 25					—

alleu 3,3,25"  
↓

alleu 3,3,36"  
alleu 3,3,76"

**VEGETATION COVER MEASUREMENT** CSC 21C Add sp. erifat, salleu, Quercus fus. acorn, large boulders in debris, H. whip

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =      (# veg. hits/25 or 30) \* 100

Quercus fus. acorn      Mala fusca  
Collystium macrostegium

B - 17/26 = 65%  
C - 22/26 = 85%



CSC 22 ✓

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
O	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
O	BANK - Cut, hollow or lake border		LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
I	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 3-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) 11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	I	SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	O	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body	O	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
O	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	O	TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	O	TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS	O	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	O	TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsalted, >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: LP A Plot Number: CSC 22A Location: Elderberry Forebay

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above hollow)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dead

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1						20	Eriodictyon	D	2	50	+
2						21	Avena	D	2	27	+
3	ERIFAS	M	3	49	+	22	Avena	D	2	32	+
4						29					
5						30					
6						31					
7						32					
8						33					
9						34					
10						35	Avena	D	2	14	+
11	Avena	D	2	22	+	36					
12	BROMAD	D	1	6	+	37					
13	Avena	D	2	22	+	38					
14	BROMAD	D	1	2	+	39					
15	ERIFAS	M	3	3/4	+	40	Avena	D	2	21	+
16						41					
17						42	BROMAD	D	1	2	+
18						43					
19						44					
20						45	BROMAD	D	1	9	+
21	ERIFAS	M	3	41	+	46					
22						47					
23						48					
24						49					
25						50	BROMAD	D	2	14	+

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

26/26 = 100%

Eriodictyon crassifolium  
Eriogonum fasciculatum  
Avena sat.  
BROMAD

rock outcrops

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: UP Plot Number: CSC22B Location: Elderberry Forebay  
AL  
 Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	B	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dom

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	BROMAD	D	1	2	+	20	POLYGL	D	1	6	+
2	BROMAD	D	1	4	+	27					
3	BROTEC	D	1	6	+	28					
4	Avena	D	2	18	+	29					
5	BROMAD	D	1	5	+	30					
6	Dead diioditor			32	+	31	Avena	D	2	20	+
7						32	"	D	2	32	+
8						33	BROMAD	D	1	9	+
9						34	Avena	D	1	10	+
10	Avena	P	2	27	+	35					
11	BROMAD	D	1	6	+	36					
12	BROMAD	D	1	5	+	37					
13					-	38					
14	ERIFAS	M	3	33	+	39					
15						40	BROMAD	D	1	6	+
16						41	"	D	1	2	+
17	ERIFAS	M	3	42	+	42					
18						43					
19						44					
20						45					
21						46					
22	ERIFAS	M	3	30	+	47	BROMAD	D	1	5	+
23					-	48					
24	INDSS			2	+	49					
25	"	"	"	"	"	50					

**VEGETATION COVER MEASUREMENT**

24/26 = 92%

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover = (# veg. hits/25 or 30) \* 100

Fuchsia - Epilobium canum

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: LP Plot Number: CSC 22C Location: Elderberry Forebay

Visual estimate before sampling; CWHR habitat type: AL CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bud)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	<u>P</u>	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
<u>3</u>	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dom

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/A)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/A)	hit or miss
1	↓		↓		↓	29	SAL 2	M	3	62	+
2	↓		↓		↓	30	BROMAD	D	1	10	+
3	SAL 2	M	3	57	+	31	BROMAD	D	10	5	+
4	↓		↓		↓	32	BROMAD	D	1	6	+
5	↓		↓		↓	33	BROMAD	D	1	5	+
6	↓		↓		↓	34					
7	↓		↓		↓	35					
8	↓		↓		↓	36					
9	SAL 2	M	3	60	+	37					
10	"	"	"	"	"	38					
11	SAL 2	M	3	51	+	39					
12	↓		↓		↓	40					
13	↓		↓		↓	41					
14	↓		↓		↓	42					
15	↓		↓		↓	43					
16	Mallow	M	3	36	+	44					
17	SAL 2	M	3	50	+	45					
18	↓		↓		↓	46	Avena	D	2	41	+
19	↓		↓		↓	47	Avena	D	2	15	+
20	Mallow	M	3	34	+	48	BROMAD		1	7	+
21	"	"	"	"	"	49	Avena		2	18	+
22	SAL 2	D	3	58	+	50	BROMAD		1	8	+
23	↓		↓		↓						
24	↓		↓		↓						
25	↓		↓		↓						

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

\* SAL 2 = SALMEL  
\* mallow = Malacothrum fasciculata

$26/26 = 100\%$

chamise  
mallow  
☐

patchy  
some what different from other hillside

CSC 23

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	I	LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border		LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 3-3" diam.
BIRDS, MED. - 110-450g (4oz-1lb)  b11111111	I	LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
BIRDS, SMALL - < 110g (4oz)	I	LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area		TREE LEAVES
FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
FLOWERS	I	RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	I	ROOTS		TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
GRAIN - A single, hard cereal seed	I	SAND DUNE		TREE/WATER - Interface
GRAMINOIDS - Grass-like plants	I	SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
INSECTS, TERRESTRIAL	I	SHRUB/WATER - Interface		WATER - Any source of free water
INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted; >2ft/sec. flows
INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt.; flows < 5ft/sec.
KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
LAKES - Permanent > 2ha (5 acres)	I	SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/17/18 Sample Crew: LP AL Plot Number: CSC 23A Location: Castaic TL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam @ Maturity)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0"	S	Sparse cover	10 0-24 9% Shrub, 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1 5- 19 9" (PO) 1 5-5 9" (JT)	2 0-9 9"	P	Open cover	25 0-39 9% Shrub, 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0-19 9"	M	Mod. cover	40 0-59 9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0"	D	Dense cover	≥ 60 0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	ADEFAS	M	3	84	+	27	ADEFAS	M	3	84	+
2	↓		↓		↓	28	BZOMAD	D	1	4	+
3	↓		↓		↓	29	BZOMAD	D	1	4	+
4	Hesperoyucca	M	3	90	+	30	POISEL	D	2	18	+
5	↓		↓		↓	31	BZOMAD	D	1	5	+
6	↓		↓		↓	32					
7	↓		↓		↓	33	BZOMAD	D	1	4	+
8	ADGFAS	M	3	61	+	34					
9	↓		↓		↓	35					
10	↓		↓		↓	36					
11	BZOMAD	D	1	5	+	37					
12	BZOMAD	D	1	7	+	38					
13	"	D	1	4	+	39					
14	SAL 2	M	3	39	+	40					
15	↓		↓		↓	41					
16	↓		↓		↓	42					
17	BZOMAD	D	1	4	+	43					
18	EP1FAS	M	3	23	+	44					
19	↓		↓		↓	45					
20	↓		↓		↓	46					
21	↓		↓		↓	47					
22	↓		↓		↓	48					
23	↓		↓		↓	49	BZOMAD	D	1	8	+
24	Dead chub			50	+	50					
25	"	"	"	"	"						

SALMEL

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =      (# veg. hits/25 or 30) \* 100

26/26 = 100%

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/17/18 Sample Crew: LP Plot Number: CSC23B Location: Castaic TL

Visual estimate before sampling: CWHR habitat type: AL CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above budout)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	Dead shrub			40	+	26	BROMAD	D	1	10	+
2						27					
3						28					
4						29	BROMAD	D	1	12	+
5	ERIFMS	M	3	41	+	30	BROMAD	D	1	9	+
6	"	"	"	"	"	31					
7	SAL 2	M	3	71	+	32					
8						33					
9						34					
10						35					
11						36	BROMAD	D	1	6	+
12						37	"	D	1	4	+
13						38					
14						39					
15						40					
16	POASEL	D	1	0	+	41					
17	BROMAD	D	1	9	+	42					
18	Dead shrub			19	+	43					
19						44	BROMAD	D	1	8	+
20						45	"	D	2	14	+
21						46	"	D	1	9	+
22						47	"		2	13	+
23						48					
24						49					
25	BROMAD	D	1	5	+	50					

SALMFL

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

24/26 = 92%



denser area - same species comp as other MCH areas

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP Plot Number: CSC 33C Location: Castaic TL  
AL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above hollow)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	↓		↓		↓	1	ERIFAS	M	3	35	+
2	↓		↓		↓	2	BEUMAD	D	1	2	+
3	ERIFAS	M	3	40	+	3	BEUMAD	D	1	4	+
4	↓		↓		↓	4	BEUMAD	D	1	8	+
5	↓		↓		↓	5	BEUMAD	D	1	4	+
6						31					
7						32					
8						33					
9	↓		↓		↓	34	BEUMAD	D	1	10	+
10						35					
11	ERIFAS	M	3	19	+	36	BEUMAD	D	1	10	+
12	"	"	"	"	"	37	"			8	+
13	ERIFAS	M	3	37	+	38					
14	↓		↓		↓	39					
15	↓		↓		↓	40	Artem	D	2	28	+
16	Dead shrub			36	+	41	BEUMAD	D	1	10	+
17	ERIFAS	M	3	36	+	42					
18	"	"	"	"	"	43	Artem	D	2	12	+
19	Artem	D	2	19	+	44					
20	BEUMAD	D	1	5	+	45					
21	ERIFAS	M	3	16	+	46					
22	"	"	"	"	"	47	PARSEL	D	1	9	+
23	Artem	D	1	10	+	48					
24	BEUMAD	D	1	4	+	49					
25	"	D	1	4	+	50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

25/26 = 96%

CSL 24

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	O	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border		LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
O	BARREN - Devoid of veg. with veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.	I	SOIL, GRAVELLY - Gravel 8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) 1b11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	I	SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	I	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body	I	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	O	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	O	TREE, W/ LOOSE BARK
	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit	O	ROOTS	O	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

\*moved point due to large burn area near wash, more grassy lowland plot compared to others

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP AL Plot Number: CSC24A Location: Castaic TL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above hollow)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dom

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/R)	hit or miss
1	Avena	D	2	11	+	26	Avena	D	2	22	+
2	Avena	D	2	25	+	27					
3	BRODIA	D	2	20	+	28					
4	BRODIA	D	2	22	+	29					
5	Avena	D	2	30	+	30					
6	Avena	D	2	19	+	31					
7	* UNK	D	4	45	+	32					
8	"	"	"	"	+	33	Avena	D	2	20	+
9	ERIAS	M	4	34	+	34	BRODIA	D	2	17	+
10						35					
11						36					
12						37					
13						38					
14						39					
15						40	BRODIA	D	2	7	+
16	Avena	D	2	13	+	41					
17	Avena	D	2	18	+	42					
18	BRODIA	D	2	15	+	43					
19	BRODIA	D	2	12	+	44					
20	BRODIA	D	2	15	+	45					
21	Avena	D	2	14	+	46					
22	BRODIA	D	2	10	+	47					
23	BRODIA	D	2	11	+	48					
24	BRODIA	D	2	19	+	49					
25	BRODIA	D	2	12	+	50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

UNK = yellow aster shrub → \* *Lepidospartum squamatum*

note → similar species much more open comp to other side, but

hillside

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP Plot Number: CSC 24B Location: Castaic TL  
AL  
Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above foliage)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	SALMEL	D	4	67	+	26					-
2						27					
3						28					
4						29					
5						30	BRODIA	D	2	14	+
6						31	BRODIA	D	2	15	+
7	BRODIA	D	2	11	+	32					
8	BRODIA	D	2	12	+	33					
9	BRODIA	D	1	7	+	34					
10	BRODIA	D	2	14	+	35					
11	BRODIA	D	2	13	+	36					
12	BRODIA	D	2	11	+	37					
13	Artemisia	D	2	13	+	38					
14	BRODIA	D	1	11	+	39					
15	"	D	1	8	+	40					
16	"	D	2	13	+	41					
17	"	D	1	11	+	42					
18	"	D	2	13	+	43					
19	"	P	1	9	+	44					
20						45					
21	BRODIA	D	1	8	+	46					
22	BRODIA	D	2	12	+	47					
23	"	D	2	18	+	48					
24	"	D	2	21	+	49					
25						50					

\*  
SALMEL  
actually  
SALLEU

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

Atriplex  
Datura  
Croton

~~Chenopodium~~ → no, Artemisia californica  
Hesperofylla  
ERIFAS  
SALMEL SALLEU

denser plot

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP Plot Number: CSC24C Location: Castaic TL

Visual estimate before sampling; CWHR habitat type: AL CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	SALICEL	D	4	64	+	27	ERIFAS	M	4	59	+
2	↓					28					
3	↓					29					
4	↓					30					
5	↓					31					
6	ERIFAS	M	4	35	+	32					
7	↓					33					
8	↓					34	BRODIA	D	2	18	+
9	↓					35	BRODIA	D	1	10	+
10	↓					36	BRODIA	D	1	10	+
11	Dead shrub	D	4	43	+	37	BRODIA	D	1	6	+
12	"	"	"	"	-	38					
13						39					
14	Avena	D	1	9	+	40					
15	BRODIA	D	1	10	+	41					
16	"	D	2	15	+	42					
17	"	D	2	14	+	43					
18	SALICEL	M	4	47	+	44	BRODIA	D	1	11	+
19	↓					45					
20	↓					46	BRODIA	D	2	12	+
21	↓					47					
22	BRODIA	D	2	12	+	48					
23	"	D	1	10	+	49					
24	Avena	D	2	16	+	50					
25	BRODIA	D	2	14	+						

SALLEU

SALLEU

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

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10/4/2018

CWHR HABITAT ELEMENT CHECKLIST

CSC 25



Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	10	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	10	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.	0	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	10	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
0	BANK - Cut, hollow or lake border	10	LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	10	SOIL, AERATED - Well drained
10	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 8-3" diam.
10	BIRDS, MED. - 110-450g (4oz-1lb) 1b11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght)
10	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	10	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	10	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
10	BURROW - Excavation made by animal	10	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	0	STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	10	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
10	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf.area		TREE LEAVES
	FERN - Spore-forming plants with fronds	10	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
10	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
10	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
10	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
10	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface	10	SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
10	INSECTS, FLYING - Insect eaten in air	10	SHRUB/GRASS - Interface		VERNAL POOLS
10	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
10	INVERTEBRATES	10	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted; >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt., flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)	10	SLASH, SMALL Residue 1-3" diameter		WILDF

MINE - excavated for minerals



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

mapping could be refined

Date: 10/27/15 Sample Crew: ICDL Plot Number: CSC25A/25B Location: Templin

Visual estimate before sampling; CWHR habitat type: Chamise intergrade of CSC + CRC areas

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	10.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

3/2/0 ericra 3 2 46 + || 25B 0 adelfis 3 2 21 +

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht (m/ft)	hit or miss (+/-)
1	↓					26	adelfis	3	2	21	+
2	↓					27	↓				-
3	↓					28	adelfis	3	2	31	+
4						29	↓			↓	↓
5						30	adelfis	3	3	34	+
6	salmel	3	3	54	+	31	↓			↓	↓
7	↓					32	adelfis	3	2	39	+
8	↓					33	↓			↓	↓
9	↓					34	adelfis	3	2	36	+
10	↓					35	↓			↓	↓
11						36	↓			↓	↓
12						37	adelfis	3	2	30	+
13	salmel	3	3	18	+	38	adelfis	3	2	32	+
14	↓					39	↓				-
15						40	↓				-
16						41	adelfis	3	2	40	+
17	salmel	3	3	42	+	42	↓			↓	↓
18	↓					43	↓			↓	↓
19	↓					44	↓			↓	↓
20	↓					45	↓			↓	↓
21	salmel	3	3	62	+	46	adelfis	3	2	27	+
22	↓					47	↓			↓	↓
23	↓					48	↓			↓	↓
24	ericra	3	3	50	+	49	adelfis	3	2	48	+
25	ericra	3	3	50	+	50	↓			↓	↓

salmel 36  
salmel 36

salmel, 4

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

A - 20/26 = 77%  
B - 23/26 = 88%

25 A is transitional with between grassland & the south & Chamise Chap to the north.  
Add: H. whip,

mapping  
could be refined  
↑

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/4/19 Sample Crew: DLJC Plot Number: CSC-25C Location: Templin

Visual estimate before sampling; CWHR habitat type: intergrade of CSC + CRC areas

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above hollow)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9"(PO) 1.5-5.9"(JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/R)	hit or miss
1	Horsetail	3	2	314	+	26					
2	↓	↓	↓	↓	↓	27					
3	↓	↓	↓	↓	↓	28					
4	adelphi	3	3	31	+	29					
5	adelphi	3	3	45	+	30					
6	↓	↓	↓	↓	↓	31					
7	↓	↓	↓	↓	↓	32					
8	↓	↓	↓	↓	↓	33					
9	adelphi	3	3	50	+	34					
10	↓	↓	↓	↓	↓	35					
11	↓	↓	↓	↓	↓	36					
12	↓	↓	↓	↓	↓	37					
13	↓	↓	↓	↓	↓	38					
14	adelphi	3	3	72	+	39					
15	↓	↓	↓	↓	↓	40					
16	↓	↓	↓	↓	↓	41					
17	salme1	3	3	40	+	42					
18	↓	↓	↓	↓	↓	43					
19	↓	↓	↓	↓	↓	44					
20	↓	↓	↓	↓	↓	45					
21	↓	↓	↓	↓	↓	46					
22	↓	↓	↓	↓	↓	47					
23	salme1	3	3	46	+	48					
24	↓	↓	↓	↓	↓	49					
25	↓	↓	↓	↓	↓	50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

25/26 = 96%

DRI 26

CWHR HABITAT ELEMENT CHECK LIST



Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak		LAYER, HERBACEOUS >10% herb understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border		LITTER - Residue <1" in diam		SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam		SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 3-3" diam.
	BIRDS, MED - 110-450g (4oz-1lb)  b		LOG, MEDIUM (HOLLOW) 10-20" diam	<input type="checkbox"/>	SOIL, ORGANIC - > 20% organic matter (wght)
	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam	<input type="checkbox"/>	SOIL, SANDY - Sand 0.5-2mm diam
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.		MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal		MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag <3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area		TREE LEAVES
	FERN - Spore-forming plants with fronds		REPTILES		TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
	GRAIN - A single, hard cereal seed		SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB/WATER - Interface		WATER - Any source of free water
	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt, flows < .5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE - Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

inaccessible → private residence

MINE - excavated for minerals

tree of heaven  
 Populus fremontii  
 cypress  
 other ornamentals

change to URB

DSW 27 ✓

### CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak		LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border		LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 3-3" diam.
	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.		MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal		MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE - Slope > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area		TREE LEAVES
	FERN - Spore-forming plants with fronds		REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unaited; >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; Flows < 5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

middle terrace → plots span wash → uplands

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: UP Plot Number: ~~DSW~~ 7A Location: Elderberry Forebay  
AL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

patch

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1						10	Dead shrub			30	+
2						11	BRONAD	D	1	6	+
3	BRONAD	D	1	7	+	12	Avena	D	2	30	+
4	Eriodict.	M	3	45	+	13	BRONAD	D	1	4	+
5						14	Avena	D	2	39	+
6						15					
7						16					
8	Eriodict.	M	3	62	+	17					
9						18					
10						19					
11						20	BRONAD	D	1	8	+
12						21	Avena	D	2	12	+
13						22					
14	BRONAD	D	1	3	+	23					
15	Dead shrub			19	+	24					
16						25					
17						26	BRONAD	D	1	6	+
18						27	Avena	D	2	19	+
19						28					
20						29					
21	Eriodict.	Y	3	55	+	30					
22	Avena			12	+	31					
23	Eriodict.	Y	3	58	+	32					
24						33					
25						34	BRONAD	D	1	4	+
						35					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

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upland area, definitely not wash (see C for wash point)

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP Plot Number: DSW27B Location: Elderberry Forebay

Visual estimate before sampling; CWHR habitat type: AL CSC CHAZ/DH

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above hulas)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht (m/R)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht (m/R)	hit or miss
1	Dead shrub			22	+	20	ERIPAS	M	3	28	+
2						21	BROMAD	D	1	0	+
3						28					
4						29	BROMAD	D	1	6	+
5						30	Avena	D	2	17	+
6						31	Avena	D	2	17	+
7	Stroph	D	3	28	+	32					
8	Avena	D	2	24	+	33					
9	Dead shrub			27	+	34	Avena	D	2	29	+
10	BROMAD	D	1	2	+	35					
11	Ferds	D	1	5	+	36					
12	BROMAD	D	1	5	+	37					
13	Avena	D	1	5	+	38					
14	white sage	M	3	67	+	39					
15	"	"	"	"	"	40					
16						41	Eriodic	M	3	65	+
17						42					
18						43					
19	Dead shrub			12	+	44					
20						45	BROMAD	D	1	11	+
21						46	BROMAD	D	1	4	+
22	BROMAD	D	1	2	+	47					
23	"	D	1	6	+	48					
24	"	D	1	2	+	49					
25	"	D	1	5	+	50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover = (# veg. hits/25 or 30) \* 100

Yucca



in wash → mullet and tamarisk dominant, some scattered cottonwood

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP Plot Number: DSW<sup>27C</sup> Location: Elderberry Forebay

Visual estimate before sampling: CWHR habitat type: DRI

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-19.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (m/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (m/ft)	hit or miss
1	TAM	Y	2	74	+	26	BACSA	M	3	112	+
2	Dead shrub			71	+	27					
3	BACSA				+	28					
4	ARTCAL	D	3	40	+	29					
5						30					
6	↓				↓	31					
7	BACSA	M	3	73	+	32					
8	"	"	"	"	"	33					
9	Dead shrub			13	+	34	Avena	D	1	12	+
10						35					
11	↓				↓	36					
12						37					
13	EDFA	M	3	32	+	38					
14						39					
15	BROWAD	D	1	5	+	40					
16	UNK sh	M	3	31	+	41					
17						42					
18						43					
19						44					
20						45					
21	Avena	D	2	32	+	46					
22						47					
23	BROWAD	D	1	4	+	48					
24	TAM	M	3	134	+	49	BROWAD	D	1	3	+
25	"	"	"	"	"	50	"	D	1	4	+

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

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DSW 28

checklist only  
plot inaccessible

CWHR HABITAT ELEMENT CHECKLIST

URBAN

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh
I	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory	I	SNAG, LARGE, (SOUND) >30" dbh
I	AMPHIBIANS - Frogs, Toads, etc.	I	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS	I	SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
I	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" in diam.	I	SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area	I	LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit	I	LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111	I	LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - > 20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)	I	LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
I	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
O	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
O	CAMPGROUND	O	MOSS - Bryophytes	O	STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter	O	MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR	I	STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
O	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
O	FISH	I	RIPARIAN INCLUSION - Riparian veg. (small)	I	TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	I	TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit	I	ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE	I	TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
I	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	O	SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface	I	WATER - Any source of free water
I	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec. flows
O	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.	O	WATER, CREATED BODY - Guzzler, well, etc.
O	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
O	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

10-2-18 SA, DL

CWHR HABITAT ELEMENT CHECK LIST

FEW-29

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

FEW

observed  
number of plants  
observed

ACORNS - Fruit of an oak	LAYER, HERBACEOUS >10% herb understory I, O	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	LAYER, SHRUB >10% shrub understory	SNAG, LARGE (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc I, O	LAYER, TREE >10% subcanopy trees O	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT I	LICHENS	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED 2	LITHIC - Rock scatter <10" diam	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border I	LITTER - Residue <1" indiam	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg within veg area	LOG, LARGE (HOLLOW) >20" diam	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit	LOG, LARGE (ROTTEN) >20" diam	SOIL, FRIABLE - Easily crumbled
BIRDS, LARGE - > 450g (1lb) I, O	LOG, LARGE (SOUND) >20" diam	SOIL, GRAVELLY - Gravel 8-3" diam
BIRDS, MED. - 110-450g (4oz-1lb) 1111111111 I, O	LOG, MEDIUM (HOLLOW) 10-20" diam	SOIL, ORGANIC - >20% organic matter (wght)
BIRDS, SMALL - < 110g (4oz) I, O	LOG, MEDIUM (ROTTEN) 10-20" diam	SOIL, SALINE - Alkaline soils/veg
BOGS - Low-lying, residue rich areas	LOG, MEDIUM (SOUND) 10-20" diam	SOIL, SANDY - Sand, 0.5-2mm diam
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area O	MAMMALS, LARGE - > 2270g (5lb) O	SPRINGS-Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc	MAMMALS, MED - 110-2270g (4oz-5lb) O	SPRINGS, HOT
BURROW - Excavation made by animal	MAMMALS, SMALL - < 110g (4oz) O	SPRINGS, MINERAL
CAMPGROUND	MOSS - Bryophytes	STEEP SLOPE-Slopes > 50%
CARRION - Any dead animal matter	MUD FLATS- contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	NECTAR	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face	NEST BOX - Constructed nesting cavity	STUMP (ROTTEN)-snag<3m (10') high
CONES - From gymnosperm trees	NEST PLATFORM - Const. large platform	STUMP (SOUND)-snag<3m (10') high
DUFF - Non-structured decaying matter	NEST ISLAND - Man-made nesting island	TALUS-Slope from rock accumulation
DUMP - Sanitary landfill	NUTS - Hard-shelled, dry fruit.	TIDEPOLS
EGGS - Any bird or reptile eggs	PACK STATION - with assoc. human use	TRANSMISSION LINES
FENCES - Any type	PONDS - Permanent, <2ha (5 acres) surf area	TREE LEAVES O
FERN - Spore-forming plants with fronds	REPTILES O	TREE, BROKEN LIVE TOP >11" dbh
FISH I, O	RIPARIAN INCLUSION - Riparian veg (small)	TREE, W/ CAVITIES
FLOWERS O	RIVERS - Perm., >6m (20') wide in dry season	TREE, W/ LOOSE BARK O
FORBS - Herbaceous dicotyledons O	ROCK - Outcrop >10" diam.	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	ROOTS	TREE/GRASS - Interface O
FUNGI - Mushrooms, molds, etc	SALT PONDS - Saline ponds	TREE/SHRUB - Interface
GRAIN - A single, hard cereal seed	SAND DUNE	TREE/WATER - Interface O
GRASSMINIDS - Grass-like plants O	SAP	TREES, FIR - Abies sp >11" dbh
GRASS/AGRICULTURE - Interface	SEEDS - Other than listed above	TREES, HARDWOOD - >11" dbh O
GRASS/WATER - Interface	SHRUB/AGRICULTURE- Interface	TREES, PINE - Pinus sp > 11" dbh
INSECTS, FLYING - Insect eaten in air I, O	SHRUB/GRASS - Interface	VERNAL POOLS
INSECTS, TERRESTRIAL O	SHRUB/WATER - Interface	WATER - Any source of free water I
INVERTEBRATES O	SHRUBS - Woody plants, not trees	WATER, FAST - Unsilted, >2ft/sec flows
INVERTEBRATES, AQUATIC I	SLASH, LARGE (ROTTEN) Residue 3-10" diam	WATER, CREATED BODY - Guzzler, well, etc
JETTY - Rock/concrete extending into water	SLASH, LARGE (HOLLOW) Residue 3-10" diam	WATER, SLOW - Some silt, flows < 5ft/sec I
KELP - Large, coarse, brown algae	SLASH, LARGE (SOUND) Residue 3-10" diam	WATER/AGRICULTURE- Interface
LAKES - Permanent > 2ha (5 acres) I	SLASH, SMALL Residue 1-3" diameter	WHARF

+ See notes on iPad

Dominant species = SCH CAL

Upslope = Pop FRE (>4' DIAM, 30+ ft. tall)

Lg. Salix ~ 20+ ft. tall (SAZ 600)

Stephanomeria, Asclepias, Lactuca, Brassica, Hea ANN, Cirsium, Rumex, Bromad

Frogs croaking

Juncus balticus

Eri Natu further upslope by NNG area

Hawk flying overhead - may be RTH. Underside - black wings

MINE - excavated for mine rats

did not do transects - inundated

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10-2-18 Sample Crew: SA, DC Plot Number: FEW-29 Location: Quail Lake

Visual estimate before sampling; CWHR habitat type: FEW

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. shot & budjet)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1.5"	< 2 0"	S	Sparse cover	10.0-24.9% Shrub, 20.9-9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12 1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	20'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	10-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1						26					
2						27					
3						28					
4						29					
5						30					
6						31					
7						32					
8						33					
9						34					
10						35					
11						36					
12						37					
13						38					
14						39					
15						40					
16						41					
17						42					
18						43					
19						44					
20						45					
21						46					
22						47					
23						48					
24						49					
25						50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

SCHOENOPLECTUS CAL. 6-8' tall, % cover ≈ 55%. rest open water or floating dead veg.  
See checklist for spp. in area adjacent

FEW 30

CWHR HABITAT ELEMENT CHECK LIST



Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak		LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh
I	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
I	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
I	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
I	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROTTEN) <15" dbh
I	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg within veg. area		LOG, LARGE (HOLLOW) >20" diam	O	SOIL, AERATED - Well drained
	BERRIES - Small pulpy fruit		LOG, LARGE (ROTTEN) >20" diam	O	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam	O	SOIL, GRAVELLY - Gravel 3-3" diam.
I	BIRDS, MED - 110-450g (4oz-1lb) (b1111111)		LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - >20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam		SOIL, SALINE - Alkaline soils/veg
I	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam	O	SOIL, SANDY - Sand .05-2mm diam
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter	O	MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	I	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
	DUFF - Non-structured decaying mater		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOLS
I	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
O	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
I	FISH	I	RIPARIAN INCLUSION - Riparian veg (small)		TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit	I	ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
	GRAIN - A single, hard cereal seed		SAND DUNE	I	TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface	I	SEEDS - Other than listed above	O	TREES, HARDWOOD - >11" dbh
I	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL	I	SHRUB/WATER - Interface	I	WATER - Any source of free water
I	INVERTEBRATES	O	SHRUBS - Woody plants, not trees		WATER, FAST - Unsidet, >2ft/sec flows
I	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam	I	WATER, CREATED BODY - Guzzler, well, etc.
I	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt, flows < .5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE- Interface
I	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF



MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Not able to sample due to water  
Characterize entire A, B, C area on this sheet

Date: 10-1-18

Sample Crew: <sup>SA, DL, LP, DL, AL</sup> FEW = FEW-30 (Red dot) Plot Number: 10 Location: Quail Lake

Visual estimate before sampling; CWHR habitat type: FEW

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. above budline)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1.5"	< 2 0"	S	Sparse cover	10 0-24 9% Shrub, 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12 1"	1.5-19 9" (PO) 1.5-5 9" (JT)	2 0'-9 9'	P	Open cover	25 0-39 9% Shrub, 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0'-19 9'	M	Mod cover	40 0-59 9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0"	D	Dense cover	≥ 60 0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1						26					
2						27					
3						28					
4						29					
5						30					
6						31					
7						32					
8						33					
9						34					
10						35					
11						36					
12						37					
13						38					
14						39					
15						40					
16						41					
17						42					
18						43					
19						44					
20						45					
21						46					
22						47					
23						48					
24						49					
25						50					

**VEGETATION COVER MEASUREMENT**

Other spp: *Azolepias*  
*Salix exigua*

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

Species observed inundated w/ water

*Schoenoplectus californicus* - more on deeper water edge 40% 8ft. tall

*Typha* sp. - closer to edge 7ft. tall - *Stantec* sp. 60%

*Tamarix* sp. on edge next to riprap below rd - *Stantec* sp. list says *latifolia*  
no flowers - *Stantec* sp. list says *ramos*



CWHR HABITAT ELEMENT CHECK LIST

Each element is present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input type="checkbox"/>	LAYER, HERBACEOUS >10% herb understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	<input type="checkbox"/>	LITHIC - Rock scatter <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border	<input type="checkbox"/>	LITTER - Residue <1" in diam	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg within veg area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam	<input type="checkbox"/>	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROTTEN) >20" diam.	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam.	<input type="checkbox"/>	SOIL, GRAVELLY - Gravel 3-3" diam.
<input type="checkbox"/>	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic matter (wght)
<input type="checkbox"/>	BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROTTEN) 10-20" diam	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas	<input type="checkbox"/>	LOG, MEDIUM (SOUND) 10-20" diam.	<input type="checkbox"/>	SOIL, SANDY - Sand .05-2mm diam
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/>	MAMMALS, LARGE - > 2270g (5lb)	<input type="checkbox"/>	SPRINGS-Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc.	<input type="checkbox"/>	MAMMALS, MED - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
<input type="checkbox"/>	BURROW - Excavation made by animal	<input type="checkbox"/>	MAMMALS, SMALL - < 110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input type="checkbox"/>	STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS- contiguous with water body	<input type="checkbox"/>	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	<input type="checkbox"/>	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN)-snag<3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND)-snag<3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying matter	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS-Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit	<input type="checkbox"/>	TIDEPOOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc. human use	<input checked="" type="checkbox"/>	TRANSMISSION LINES
<input type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf area	<input type="checkbox"/>	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	<input type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input type="checkbox"/>	FLOWERS	<input type="checkbox"/>	RIVERS - Perm. >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam.	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/>	SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE/SHRUB - Interface
<input type="checkbox"/>	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
<input type="checkbox"/>	GRAMINOIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	<input type="checkbox"/>	SEEDS - Other than listed above	<input checked="" type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE- Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp</i> > 11" dbh
<input type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB GRASS - Interface	<input type="checkbox"/>	VERNAL POOLS
<input type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB WATER - Interface	<input type="checkbox"/>	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES	<input type="checkbox"/>	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsilted, >2ft/sec flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROTTEN) Residue 3-10" diam	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam	<input type="checkbox"/>	WATER, SLOW - Some silt, flows < 5ft/sec
<input type="checkbox"/>	KELP - Large, coarse, brown algae	<input type="checkbox"/>	SLASH, LARGE (SOUND) Residue 3-10" diam	<input type="checkbox"/>	WATER/AGRICULTURE- Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/>	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WHARF

MINE - excavated for minerals

modified for non-wooded

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM

NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: LP, AL Plot Number: JST 31A Location: Quail south canal

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class:  
Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: ~~\_\_\_\_\_~~

mch

see shrub classes

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

appears buried under growth

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	prec 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	prec 1/4 quad
1	BROMAD	D	1		5	+	26	BRODIA	D	1		5	+
2						-	27						
3	BRODIA	B	1		6	+	28						
4	BRODIA	B	1		6	+	29						
5	dead shrub				53	+	30	BRODIA	D	1		8	+
6	↓					+	31	BRODIA	D	1		9	+
7	BRODIA	D	1		10	+	32						
8	ARTTRI	M	3		45	+	33						
9	↓					+	34	BROMAD	D	1		10	+
10	BROMAD	D	1		9	+	35	dead shrub				24	+
11	BROMAD	D	1		6	+	36						
12	dead shrub				64	+	37	BROMAD	D	1		5	+
13						+	38	BROMAD	D	1		5	+
14	↓					+	39	BROMAD	D	1		11	+
15	Eriodictyon	D	4		62	+	40						
16						+	41	BROMAD	D	1		6	+
17						+	42	BROMAD	D	1		10	+
18						+	43	BROMAD	D	1		8	+
19	grass	D	2		17	+	44						
20	QUE-T	M	3		10ft	+	45	BROMAD	D	1		11	+
21						+	46	BROMAD	D	1		10	+
22						+	47	BROMAD	D	1		9	+
23						+	48	grass	D	2		21	+
24						+	49	BROMAD	D	1		10	+
25						+	50						

#19 = miss

A = 24/26 = 92%

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100.

N-S: \_\_\_\_\_

E-W: \_\_\_\_\_

QUE-T

(Center stake)

add veg cover meas.

Eriodictyon or grass.

\*ALL BRODIA actually BROTE

g Harcatcher

10/26/18 SA, DL JST-31B

Quail Lake

NOT JST Need to characterize

CWTR Class

- 1 S
- 2 YS
- ③ M
- 4 D

Canopy Closure

- S 10-25
- P 25-40
- Ⓜ 40-60
- D 760

Scrub oak chaparral

Pl #	Species	Age	% Dec.	Ht.	Ht/Miss
0	ERIO SP.	YS	2	59 in.	+
1	BRO MAD	<del>B</del>	<del>1</del>	9 in.	+
2	<del>ERIO SP.</del>	YS	2	<del>59 in.</del>	+
3					+
4					+
5					+
6					+
6	BRO MAD	D	21	11 in.	+
7	QUE J-T	D	4	72 in.	+
7	BRO MAD	D	21	5 in.	+
8	unk. grass	D	21	5 in.	+
9	BRO MAD	D	21	3 in.	+
10	BRO MAD	D	21	3 in.	+
11	unk. grass 2	D	21	7 in.	+
12					-
13	BRO MAD	D	21	5 in.	+
14	BRO TEC	D	21	5 in.	+
15	BRO TEC	D	21	6 in.	+
16	unk. grass 2	D	2	19 in.	+
17	"	D	2	13 in.	+
18	"	D	2	16 in.	+
19	BRO TEC	D	21	7 in.	+
20	"	D	21	9 in.	+
21	BRO MAD	D	21	7 in.	+
22	"	D	21	7 in.	+
23	"	D	21	4 in.	+
24	"	D	21	5 in.	+
25	"	D	21	11 in.	+

just one <sup>tall</sup> branch dead

25/26 = 96%

Lesqueria glandulifera

Eriophyllum conf.

Opuntia (P)  
Artemisia tridentata (P)

Arctostaphylos

CERC BET  
ERI FRASC.

Other spp = Quercus john-tuckeri

Eriodictyon sp. - crassifolius? (FD)

UNK grass 2 (C) Festuca?

modified for non-wooded

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: LP, AL Plot Number: JST310 Location: Quai south ~~west~~ of car

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: MCH  
Structure: Even-structure: or Uneven-structure:

See shrub codes

See shrub classes

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 m) in	Crown diam (ft)	Ht (ft)	pt. in 1/4 quad	Stem #	Species	Over/under	dbh (0.1 m)	Crown diam (ft)...	Ht (ft)	pt. in 1/4 quad
1	ARTTR1	M	3		68	+	260	BROMAD	D	1		4	+
2						+	270	BROMAD	D	1		5	+
3						+	280	BROMAD	D	1		6	+
4						+	290	BROMAD	D	1		5	+
5						+	300	BROMAD	D	1		5	+
6	Eriodictyon	M	3		48	+	31						
7	BROMAD	D	1		9	+	32						
8	BROMAD	D	1		4	+	33						
9						-	34						
10						-	35						
11						-	36						
12	grass	D	2		20	+	37						
13						-	38						
14	BROMAD	D	1		3	+	39						
15	BRODIA	D	1		8	+	40						
16	dead subshrub				19	-	41	BRODIA	D	1		7	+
17	BROMAD	D	1		6	+	42						
18	BROMAD	D	1		5	+	43						
19	BROMAD	D	1		6	+	44						
20	EPHedra	M	3		40	+	45						
21						+	46	BROMAD	D	1		7	+
22						+	47	BROMAD	D	1		8	+
23						+	48	BROMAD	D	1		6	+
24						+	49	BROMAD	D	1		9	+
25	BROMAD	D	1		5	+	50						

27/26 = 85%

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = ((no. hits)/25) \* 100.

N-S:

E-W:

bush + gnarcatcher

(Center stake)

other sp. →

dak  
Ceanothus  
Cryptantha  
Arctostaphylos

add cover veg

\*All BRODIA actually BROTEC

JUN 32

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input type="checkbox"/>	LAYER, HERBACEOUS >10% herb understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE, (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	<input type="checkbox"/>	LITHIC - Rock scatter <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border	<input type="checkbox"/>	LITTER - Residue <1" indiam	<input checked="" type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg. within veg. area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam.	<input type="checkbox"/>	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROTTEN) >20" diam.	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam.	<input type="checkbox"/>	SOIL, GRAVELLY - Gravel 8-3" diam.
<input type="checkbox"/>	BIRDS, MED. - 110-450g (4oz-1lb) 1b1111111	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam.	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic matter (wght.)
<input type="checkbox"/>	BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROTTEN) 10-20" diam.	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg.
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas	<input type="checkbox"/>	LOG, MEDIUM (SOUND) 10-20" diam.	<input type="checkbox"/>	SOIL, SANDY - Sand 0.5-2mm diam.
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/>	MAMMALS, LARGE - > 2270g (5lb)	<input type="checkbox"/>	SPRINGS-Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc.	<input type="checkbox"/>	MAMMALS, MED. - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
<input type="checkbox"/>	BURROW - Excavation made by animal	<input type="checkbox"/>	MAMMALS, SMALL - < 110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input type="checkbox"/>	STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS- contiguous with water body	<input type="checkbox"/>	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	<input type="checkbox"/>	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN)-snag<3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND)-snag<3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying matter	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS-Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit.	<input type="checkbox"/>	TIDEPOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc. human use	<input type="checkbox"/>	TRANSMISSION LINES
<input type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf. area	<input type="checkbox"/>	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	<input type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input type="checkbox"/>	FLOWERS	<input type="checkbox"/>	RIVERS - Perm., >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam.	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/>	SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE/SHRUB - Interface
<input type="checkbox"/>	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
<input type="checkbox"/>	GRAMINOIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	<input type="checkbox"/>	SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE- Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB/GRASS - Interface	<input type="checkbox"/>	VERNAL POOLS
<input type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB/WATER - Interface	<input type="checkbox"/>	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES	<input type="checkbox"/>	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsilted; >2ft/sec. flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	<input type="checkbox"/>	WATER, SLOW - Some silt; flows < 5ft/sec.
<input type="checkbox"/>	KELP - Large, coarse, brown algae	<input type="checkbox"/>	SLASH, LARGE (SOUND) Residue 3-10" diam.	<input type="checkbox"/>	WATER/AGRICULTURE- Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/>	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WHARF



MINE - excavated for minerals



\* modified for nonwooded

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

doing non wood sheet

Date 10/3/15 Sample Crew LP AL Plot Number JUN 32A Location Los Alamos Campground

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class mixed shrub? MCH  
Structure: Even-structure or Uneven-structure

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

dom

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Age % dec hit/miss

Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1						-	26	BROMAD	D	1	8	2	+
2						-	27						
3						-	28						
4						-	29						
5						-	30						
6	Erodium	D	1		41	+	31						
7	BROMAD	D	1		5	+	32						
8	shrub	D	4		36	+	33						
9						+	34	BROMAD	D	1	6	6	+
10						+	35	BROMAD	D	1	5	5	+
11	BROMAD	D	1		1	+	36						
12	Erodium	D	1		1	+	37						
13						-	38						
14						-	39						
15						-	40						
16						-	41						
17	Ericameria	M	3		22	+	42						
18						+	43						
19	dead shrub				32	+	44	BROMAD	D	1	8	8	+
20						+	45	BROMAD	D	1	7	7	+
21						+	46	BROMAD	D	1	9	9	+
22						+	47	BROMAD	D	1	8	8	+
23						+	48	BROMAD	D	1	7	7	+
24						+	49	Stipa	D	2	25	25	+
25						-	50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = ((no. hits)/25) \* 100

N-S:

E-W:

16/26 = 62%

Archostaphylos (center stake)

Eriogonum fasc.

mule deer

Coyote tracks

red tail

\* calc veg cover \*  
poa  
Chamise  
Stipa

Yucca  
Quercus J-T  
Ephedra  
Eriodictyon

Ericameria Bromus mad.



\*modified for non-woody

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON WOODED HABITAT SAMPLING DATASHEET

Date 10/3/18 Sample Crew LP, AL Plot Number JUN32B Location LOS Alamos Campground

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class  
Structure: Even-structure: X or Uneven-structure: MEH

shrub Standards For Tree Size					Standards For Canopy Closure Shrub		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	R	Open cover	25.0-39.9%
(3)	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	(M)	Mod. Cover	40.0-59.9%
(4)	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1m) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1m) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	QUEBEC (same as 0)					+	26	QUEBEC M		3		75	+
2	↓					+	27	BROMAD D		1		8	+
3	dead shrub				29	+	28	BROMAD D		1		7	+
4	↓					+	29	BROMAD D		1		11	+
5	↓					+	30	BROMAD D		1		5	+
6						-	31	unk grass D		1		5	+
7						-	32						
8	dead shrub				12	+	33						
9	↓					+	34						
10						-	35						
11						-	36						
12	Frodium D		1			+	37						
13	Hespero Yucca M		3		35	+	38	Frodium D		1		1	+
14						-	39						
15						-	40						
16						-	41						
17						-	42						
18						-	43						
19						-	44						
20	dead shrub				16	+	45						
21	↓					+	46						
22	Hespero Yucca D		4		8ft	+	47						
23	↓					+	48						
24	↓					+	49						
25	↓					+	50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100.

N-S:

E-W:

(Center stake)

off roading area

lots of heterogeneity in species, landscape

small drainages/washes, healthy rodent pop

Nuttall's wood peck

rat/mouse scat

16/26 = 62%

modified for non woody

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NONWOODED HABITAT SAMPLING DATASHEET

Date: 10/3/18 Sample Crew: LP, AL Plot Number: JUN 32C Location: LOS Alamos Campground

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class ~~Even-structure~~ MCH  
Structure: Even-structure or Uneven-structure

Standards For Tree Size Shrub					Standards For Canopy Closure Shrub		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

dom

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	plot 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	plot 1/4 quad
1	ENCIFAR (same)					+	260	ENCIFAR	M	3		36	+
2	BROMAD	D	1		5	+	270	BROMAD	D	1		7	+
3						-	280	BROMAD	D	1		7	+
4	ERIFAS	M	3		39	+	290	BROMAD	D	1		4	+
5						-	300						
6	ERIFAS	D	4		38	+	310	BROMAD	D	1		4	+
7	YUCCA	M	8		21	+	320	BROMAD	D	1		5	+
8	ERIFAS	D	4		40	+	330						
9						+	340						
10						+	350						
11						+	360						
12						+	370	BROMAD	D	1		9	+
13	ERIFAS	M	3		25	+	380	BROMAD	D	1		6	+
14	dead shrub				38	+	390	BROMAD	D	1		3	+
15	dead shrub					+	400	BROMAD	D	1		4	+
16						-	410						
17	Erodium	D	1		<1	+	420						
18	Erodium	D	1		<1	+	430						
19						-	440						
20						-	450						
21						-	460						
22	Erodium	D	1		<1	+	470						
23	dead shrub				26	+	480						
24	BROMAD	D	1		4	+	490						
25	BROMAD	D	1		2	+	500						

20/26 = 77%

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100

N-S: \_\_\_\_\_ E-W: \_\_\_\_\_

add veg cover (Center stake)

Encelia farinosa? jackrabbits scat

(JST)

CWHR HABITAT ELEMENT CHECKLIST

MCH-394 ✓

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	10	LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	10	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.	10	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	10	LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg within veg area		LOG, LARGE (HOLLOW) >20" diam		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam	10	SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)	10	LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 3-3" diam
10	BIRDS, MED - 110-450g (4oz-1lb) 1b1111111		LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - > 20% organic matter (wght)
10	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas	10	LOG, MEDIUM (SOUND) 10-20" diam	10	SOIL, SANDY - Sand 0.5-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	10	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	10	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	10	NECTAR		STREAMS, PERMANENT
0	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform	1	STUMP (SOUND)-snag<3m (10') high
10	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill	20	NUTS - Hard-shelled, dry fruit		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc human use	0	TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area		TREE LEAVES
	FERN - Spore-forming plants with fronds	10	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg (small)	0	TREE, W/ CAVITIES
10	FLOWERS		RIVERS - Perm. >6m (20') wide in dry season		TREE, W/ LOOSE BARK
10	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS	1	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	1	TREE/SHRUB - Interface
10	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
10	GRAMINOIDS - Grass-like plants	0	SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface	10	SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp</i> > 11" dbh
10	INSECTS, FLYING - Insect eaten in air	10	SHRUB GRASS - Interface		VERNAL POOLS
	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
10	INVERTEBRATES	10	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt; flows < .5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF



MINE - excavated for mine rats

modified

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: IC/DL Plot Number: MCH-34 A/B Location: Quail Lake

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: JST  
Structure: Even-structure or Uneven-structure:

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in AGE	Crown diam (ft) DECADEM	Ht (ft)	pt-ctr 1/4 quad +/-	Stem #	Species	Over/under	dbh (0.1 in) AGE	Crown diam (ft) DECADEM	Ht (ft)	pt-ctr 1/4 quad +/-
1	lassrg		4	4	2"	+	26	brnrd		4	4	6"	+
2	↓		↓	↓	↓	↓	27	brnrd		4	4	6"	+
3	↓		↓	↓	↓	↓	28	3					
4	↓		↓	↓	↓	↓	29	brnrd		4	4	8"	+
5	↓		↓	↓	↓	↓	30	5					
6	brnrd		4	4	12"	+	31	↓		↓	↓	↓	↓
7	↓		↓	↓	↓	↓	32	erites		3	4	28"	+
8	↓		↓	↓	↓	↓	33	8		↓	↓	↓	↓
9	↓		↓	↓	↓	↓	34	9		↓	↓	↓	↓
10	↓		↓	↓	↓	↓	35	10		↓	↓	↓	↓
11	↓		↓	↓	↓	↓	36	11					
12	↓		↓	↓	↓	↓	37	12	anstes	4	4	10"	+
13	↓		↓	↓	↓	↓	38	13	brnrd	4	4	8"	+
14	↓		↓	↓	↓	↓	39	14	↓	↓	↓	↓	↓
15	↓		↓	↓	↓	↓	40	15	↓	↓	↓	↓	↓
16	↓		↓	↓	↓	↓	41	16	erites	3	4	27"	+
17	↓		↓	↓	↓	↓	42	17	brnrd	4	4	12"	+
18	yucbre		2	1	38"	+	43	18	brnrd	4	4	12"	+
19	↓		↓	↓	↓	↓	44	19	yucbre	2	1	32"	+
20	↓		↓	↓	↓	↓	45	20	↓	↓	↓	↓	↓
21	yucbre		4	4	16"	+	46	21	↓	↓	↓	↓	↓
22	lasala		4	4	18"	+	47	22	erites	3	4	24"	+
23	↓		↓	↓	↓	↓	48	23	erites	3	4	38"	+
24	brnrd		4	4	8"	+	49	24	↓	↓	↓	↓	↓
25	brnrd		4	4	8"	+	50	25	↓	↓	↓	↓	↓

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100.

N-S:

E-W:

(Center stake)

eriodictyon  
suefene Steph  
Penst centr

Dead Joshua Trees 5%  
Living J Trees 2-3%  
Atriplex canescens 1 only

mostly dead brush

25/26 = 96%

24/26 = 93%



modified

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
 NONWOODED HABITAT SAMPLING DATASHEET

Date 10/2/18 Sample Crew IC DL Plot Number: MCH34C Location Quail Lake

Visual estimate at plot center before sampling CWHR habitat type, size class and canopy closure class JT (determine if woodland)  
 Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: \_\_\_\_\_

CWHR Class M

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Age Dec. HT

dead

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
0	<del>BRO TEC</del>				7in.	+							
1	BRO TEC	D	1	4in.	+		26						
2	"	"	"	"	+		27						
3	"	"	"	"	9in.	+	28						
4	JT	M	1	64in.	+		29						
5	↓	↓	↓	↓	+		30						
6	↓	↓	↓	↓	+		31						
7	BRO MAD	D	1	12in.	+		32						
8	ERI FAS	D	4	17in.	+		33						
9	"	"	"	"	+		34						
10							35						
11	ERODIUM	D	1	3in.	+		36						
12	ERI FAS	D	4	24in.	+		37						
13	↓	↓	↓	↓	+		38						
14	↓	↓	↓	↓	+		39						
15	BRO MAD	D	1	7in.	+		40						
16	"	"	"	"	+		41						
17	"	"	"	6in.	+		42						
18							43						
19	BRO MAD	D	1	7in.	+		44						
20	"	"	"	7in.	+		45						
21	"	"	"	8in.	+		46						
22	"	"	"	5in.	+		47						
23	unk. 1	"	"	2in.	+		48						
24	<del>unk. 2</del>						49						
25	unk. 2	D	2	23in.	+		50						

23/26 = 88%

OVERSTORY CANOPY COVER MEASUREMENT  
 Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft interval.  
 Percent Cover = ( (no. hits)/25 ) \* 100



JT = Joshua tree (resprouts)  
 unk. 1 = grass (Vulpia?)  
 unk. 2 = Stephanomeria

10-2-18  
Checklist

S4, DL

MCH-35

≠ Actually SGB



- Birds - All (saw small) <sup>likely</sup> ~~foraging~~ <sup>lyg</sup> Lg., med. I,0 (Cottonwood-willow riparian w/in 250 ft.)
- Burrow I,0
- Fences 0
- Flowers I,0
- ~~Forks~~
- Grasses I,0
- Insects - flying I,0
- " terres. I,0
- Inverts I,0
- Layer, Herb I,0
- " shrub I,0
- " Tree 0
- Mammals - All I,0 (suitable)
- Nectar I,0
- Reptiles I,0 (suitable)
- Shrubs I,0
- Soil, friable I,0
- " sandy I,0
- Streams, intermittent 0
- Tree leaves 0
- Tree w/ loose bark 0
- Tree/shrub 0
- Tree/water 0 (not sure if water in stream)
- Water 0

Other spp:

Stephanomeria

Salsola



1012118 SA, DL

MCH-35A

Quail Lake

(SGB)

CWTR CLASS  
DCanopy Closure  
M

Pt #	Species	Age	% Dec	Ht.	Ht/Miss
0	ERI NAU	YS	2	32 in.	+
1	↓	↓	↓	↓	+
2	BRO TEC	D	2	6 in.	+
3	BRO MAD	D	2	8 in.	+
4	ERI NAU	D	4	41 in.	+
<del>4</del> 4	BRO MAD	D	2	8 in.	+
5	ERI NAU	D	4	41 in.	+
5	BRO MAD	D	2	12 in.	+
6	ERI NAU	M	3	45 in.	+
7	↓	↓	↓	↓	+
8	↓	↓	↓	↓	+
9	↓	↓	↓	↓	+
10	BRO MAD	D	2	12 in.	+
11	ERI NAU	M	3	38 in.	+
12	↓	↓	↓	↓	+
13	↓	↓	↓	↓	+
14	↓	↓	↓	↓	+
15	↓	↓	↓	↓	+
16	↓	↓	↓	↓	+
17	BRO TEC	D	2	10 in.	+
17	ERY. SP.	D	2	32 in.	+
18	↓	↓	↓	↓	+
19					-
20	ERI. SP.	D	2	27 in.	+
21					-
22	BRO TEC.	D	2	8 in.	+
23	"	"	"	13 in.	+
24	BRO MAD	"	"	10 in.	+
25	BRO MAD	"	"	7 in.	+

$$24/26 = 93\%$$

ERI SP. = *Eriogonum elongatum*

% Cover 1/26

Other spp.: *Eriogonum* (collected - ERI SP. (ID))  
*Cryptantha*

10/2/18 SA, DL MCH-35B

Quail Lake

Cutter Class  
D

Canopy Closure  
M

(SG-B)

Pl #	Species	Age	% Dec	Ht.	Ht/Miss
0	ERI SP.	D	2	24 in.	+
read 1	ERI NAU	D	4	31 in.	+
2	BRO MAD.	D	<del>X</del> 1	9 in.	+
2	BRO TEC.	D	<del>X</del> 1	8 in.	+
3	ERI SP.	D	2	22 in.	+
3	BRO MAD.	D	<del>X</del> 1	7 in.	+
4	ERI NAU	M	3	36 in.	+
5	↓	↓	↓	↓	+
6	↓	↓	↓	↓	+
7	↓	↓	↓	↓	+
8	↓	↓	↓	↓	+
9	↓	↓	↓	↓	+
10	ERI NAU	M	3	39 in.	+
11	↓	↓	↓	↓	+
12	↓	↓	↓	↓	+
13	ERI NAU.	D	4	33 in.	+
14	BRO MAD	D	<del>X</del> 1	10 in.	+
14	ERI NAU.	D	4	33 in.	+
15	BRO MAD.	D	<del>X</del> 1	4 in.	+
16	BRO MAD.	D	<del>X</del> 1	6 in.	+
17	ERI SP.	D	2	30 in.	+
17	BRO MAD	D	<del>X</del> 1	6 in.	+
18	BRO MAD	D	<del>X</del> 1	4 in.	+
19	BRO TEC	D	<del>X</del> 1	5 in.	+
20					
21	BRO TEC	D	<del>X</del> 1	11 in.	+
22	BRO TEC	D	<del>X</del> 1	10 in.	+
23	BRO TEC	D	<del>X</del> 1	11 in.	+
23	ERI SP.	D	2	26 in.	+
24	BRO MAD	D	<del>X</del> 1	10 in.	+
Dead 24	ERI NAU	D	4	36 in.	+
" 25	"	"	"	"	"

25/26 = 96%

ERI SP. = *Eriogonum elongatum*

% Cover 1/26

Other spp.: ERI SP. (some unknown)

10/2/18 SA, DL MCH-35C Quail Lake  
 cwithr class  
 D

(SG13)

Canopy Closure  
 M

Pl. #	Species	Age	% Dec	Ht. <del>HT/MISS</del>	Ht/Miss
0	BRO MAD	D	<del>X</del> 1	7 in.	+
1	ERI NAU	<del>D</del>	<del>4</del>	35 in.	+
2					+
3					+
4					+
5					+
6					+
7	ERI NAU	<del>D</del> M	3	38 in.	+
7	BRO MAD.	D	<del>X</del> 1	6 in.	+
8	ERI NAU.	M	3	38 in.	+
9					+
10					+
10	BRO MAD	D	<del>X</del> 1	6 in.	+
11	BRO MAD	D	<del>X</del> 1	5 in.	+
12	"	D	<del>X</del> 1	6 in.	+
13	"	D	<del>X</del> 1	10 in.	+
14	"	D	<del>X</del> 1	8 in.	+
14	ERI NAU	M	3	49 in.	+
15					+
16					+
17					+
18					+
19					+
20					+
21	BRO MAD	D	2	16 in.	+
22	ERI SP.	D	2	28 in.	+
23	BRO MAD.	D	<del>X</del> 1	5 in.	+
24	"	D	<del>X</del> 1	10 in.	+
25	ERI NAU	D	4	33 in.	+
25	BRO MAD	D	<del>X</del> 1	8 in.	+

26/26 = 100%

ERI SP. = Eriogonum elongatum  
 % cover / 26

Other spp. Same as other 2 plots

CWHR HABITAT ELEMENT CHECKLIST

10/7/18  
MCH 36

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

IC DL

	ACORNS - Fruit of an oak	+0	10	LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh	
	ALGAE - Any algae other than kelp	+0	10	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh	
	AMPHIBIANS - Frogs, Toads, etc.			LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh	
	AQUATICS, EMERGENT			LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh	
	AQUATICS, SUBMERGED	+0	10	LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROTTEN) <15" dbh	
0	BANK - Cut, hollow or lake border		10	LITTER - Residue <1" in diam		SNAG, SMALL (SOUND) <15" dbh	
+0	BARREN - Devoid of veg within veg area			LOG, LARGE (HOLLOW) >20" diam	+0	10	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit			LOG, LARGE (ROTTEN) >20" diam	-10	10	SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)			LOG, LARGE (SOUND) >20" diam			SOIL, GRAVELLY - Gravel 3-3" diam
+0	BIRDS, MED - 110-450g (4oz-1lb) (b1111111)			LOG, MEDIUM (HOLLOW) 10-20" diam			SOIL, ORGANIC - >20% organic matter (wght)
+0	BIRDS, SMALL - < 110g (4oz)			LOG, MEDIUM (ROTTEN) 10-20" diam			SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas			LOG, MEDIUM (SOUND) 10-20" diam	+0	10	SOIL, SANDY - Sand 0.5-2mm diam
10	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area			MAMMALS, LARGE - > 2270g (5lb)			SPRINGS - Freshwater springs, seeps
0	BUILDINGS - Houses, sheds, etc.	0	0	MAMMALS, MED - 110-2270g (4oz-5lb)			SPRINGS, HOT
0	BURROW - Excavation made by animal	+0	10	MAMMALS, SMALL - < 110g (4oz)			SPRINGS, MINERAL
	CAMPGROUND			MOSS - Bryophytes			STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter			MUD FLATS - contiguous with water body			STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	+0	10	NECTAR			STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face			NEST BOX - Constructed nesting cavity			STUMP (ROTTEN) - snag <3m (10') high
0	CONES - From gymnosperm trees			NEST PLATFORM - Const large platform			STUMP (SOUND) - snag <3m (10') high
+0	DUFF - Non-structured decaying matter			NEST ISLAND - Man-made nesting island			TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill	-10	10	NUTS - Hard-shelled, dry fruit			TIDEPOLS
	EGGS - Any bird or reptile eggs			PACK STATION - with assoc human use			TRANSMISSION LINES
0	FENCES - Any type			PONDS - Permanent, <2ha (5 acres) surf area			TREE LEAVES
	FERN - Spore-forming plants with fronds	-10	10	REPTILES			TREE, BROKEN LIVE TOP >11" dbh
	FISH			RIPARIAN INCLUSION - Riparian veg (small)	1		TREE, W/ CAVITIES
+0	10	FLOWERS		RIVERS - Perm, >6m (20') wide in dry season	0		TREE, W/ LOOSE BARK
+0	10	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam			TREE/AGRICULTURE - Interface
		FRUIT S - Pulpy fruit		ROOTS			TREE/GRASS - Interface
		FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds			TREE/SHRUB - Interface
+0	10	GRAIN - A single, hard cereal seed		SAND DUNE			TREE/WATER - Interface
+0	10	GRAMINOIDS - Grass-like plants	0	SAP			TREES, FIR - <i>Abies sp</i> >11" dbh
		GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	0		TREES, HARDWOOD - >11" dbh
		GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface			TREES, PINE - <i>Pinus sp</i> > 11" dbh
+0	10	INSECTS, FLYING - Insect eaten in air	+0	10	SHRUB/GRASS - Interface		VERNAL POOLS
+0	10	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface			WATER - Any source of free water
+0	10	INVERTEBRATES	+0	10	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec flows
		INVERTEBRATES, AQUATIC			SLASH, LARGE (ROTTEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc
		JETTY - Rock/concrete extending into water			SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt, flows < .5ft/sec
		KELP - Large, coarse, brown algae	10		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE - Interface
		LAKES - Permanent > 2ha (5 acres)			SLASH, SMALL Residue 1-3" diameter		WHARF

5GB-4

+ 0

MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/2018 Sample Crew: IC/DL Plot Number: MCH 36A / 36B Location: Los Altos Campground Area

Visual estimate before sampling; CWHR habitat type: Buckwheat Scrub (MCH)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

A

B

36A 0 Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines. 0 enters 36B 3 3 24" +

Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1					—	26	1 pinifus	3	3	24	+
2					—	27	2 pinifus	3	3	24	+
3	brodtrec	4	4	2"	+	28	3 brodtrec	4	4	11	+
4					—	29	4 pinifus	3	3	24	+
5	crypt	4	4	6	+	30	5 erifus	3	3	24	+
6	brodtrec	4	4	8	+	31	6				—
7	↓	↓	↓	↓	↓	32	7				—
8	↓	↓	↓	↓	↓	33	8				—
9	↓	↓	↓	10	+	34	9 pinifus	4	4	34	+
10	↓	↓	↓	10	+	35	10				—
11					—	36	11				—
12	erifus	3	4	29	+	37	12				—
13	erifus				—	38	13				—
14	↓	↓	↓	↓	↓	39	14				—
15	↓	↓	↓	↓	↓	40	15 pinifus	4	4	27	+
16	↓	↓	↓	↓	↓	41	16 pinifus	4	4	27	+
17	↓	↓	↓	↓	↓	42	17				—
18	↓	↓	↓	↓	↓	43	18 pinifus	4	4	36	+
19	pinifus	3	3	20	+	44	19				—
20	↓	↓	↓	↓	↓	45	20				—
21	↓	↓	↓	↓	↓	46	21 pinifus	4	4	28	+
22					—	47	22				—
23					—	48	23				—
24	crypt	4	4	10	+	49	24				—
25	crypt	4	4	10	+	50	25				—

19/26 = 73%

**VEGETATION COVER MEASUREMENT**

Artem trid  
Hespera whip

28/26 = 8

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

Add sp.: elymus elymoides, eric nav + pinif, bromad, junca  
stefjenu

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: DLIC Plot Number: MCH13CC Location: Los Alamos CG

Visual estimate before sampling; CWHR habitat type: Buck wild or (MCH)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12 1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (in ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (in ft)	hit or miss
1	eritas	4	4	31	+	26					
2						27					
3						28					
4						29					
5						30					
6						31					
7						32					
8						33					
9	elyely	4	4	7	+	34					
10	eripih	4	4	36	+	35					
11						36					
12						37					
13						38					
14						39					
15	eritas	3	4	36	+	40					
16	eritas	3	4	36	+	41					
17	lasgra	4	4	3	+	42					
18						43					
19						44					
20	ericra	3	4	36	+	45					
21						46					
22						47					
23	broter	4	4	6	+	48					
24						49					
25						50					

eric herons

**VEGETATION COVER MEASUREMENT**

22/26 = 85%

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

see a ... of basal ... which  
less gland



McH37 ✓

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

I	ACORNS - Fruit of an oak		LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
O	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
O	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT	I	LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
O	AQUATICS, SUBMERGED		LITHIC - Rock water <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
O	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. with veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb)  b		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
O	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	I	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
I	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area		TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
O	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit	I	ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL	O	SHRUB/WATER - Interface	O	WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted; >2ft/sec. flows
O	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.	O	WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt.; flows < 5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
O	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for mine tails

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP Plot Number: MEH37A Location: Pyramid Lake

Visual estimate before sampling; CWHR habitat type: AL MCH

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	<u>D</u>	Dense cover	≥ 60.0% all types

extremely dense / impassable      very little understory  
large shrub overstory

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	same as 0				+	26	Chamise	M	3	7.3	+
2					+	27					
3					+	28					
4					+	29					
5					+	30					
6					+	31					
7	BROMAD	D	1	5	+	32					
8	BROMAD	D	1	2	+	33					
9					-	34					
10	Que-j-t	M	3	7ft	+	35					
11						36					
12						37					
13						38	BROMAD	D	1	5	+
14						39	BROMAD	D	1	5	+
15						40					
16						41					
17						42					
18					-	43					
19					-	44					
20					-	45					
21					-	46					
22					-	47					
23	Que-j-t	M	3	3	+	48					
24	"	"	"	"	+	49					
25					-	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} \times 100$

$19/25 = 76\%$

Que j-t = *Quercus berberidifolia*

- quail
- horned lark
- schub jay
- song sparrow
- raven

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP AL Plot Number: MCH37B Location: Pyramid Lake

Visual estimate before sampling; CWHR habitat type: MCH

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 20.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

in open area

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	QUEJ-T	M	3	10 ft	+	27	QUEJ-T	M	3	10 ft	+
2	↓	↓	↓	↓	↓	28	BROMAD	D	1	6	+
3	↓	↓	↓	↓	↓	29	BROMAD	M	3	6.1	+
4	Salvia mellifera	M	3	6.1	+	30	Salvia m.				
5	↓	↓	↓	↓	↓	31	QUEJ-T	M	3	4.6	+
6	↓	↓	↓	↓	↓	32					
7	↓	↓	↓	↓	↓	33					
8	↓	↓	↓	↓	↓	34	BROMAD	D	1	10	+
9	↓	↓	↓	↓	↓	35	BROMAD	D	1	11	+
10	↓	↓	↓	↓	↓	36					
11					-	37					
12					-	38					
13					-	39					
14					-	40					
15					-	41					
16					-	42					
17	Salvia mellifera	M	3	5.6	+	43					
18	↓	↓	↓	↓	↓	44					
19	↓	↓	↓	↓	↓	45					
20	↓	↓	↓	↓	↓	46					
21	↓	↓	↓	↓	↓	47	BROMAD	D	1	7	+
22	↓	↓	↓	↓	↓	48					
23	↓	↓	↓	↓	↓	49					
24					-	50					
25					-						

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$\frac{17}{26} = 65\%$

Que J-T = Quercus berberidifolia

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/13 Sample Crew: AL Plot Number: MCH<sup>376</sup> Location: Pyramid Lake

Visual estimate before sampling; CWHR habitat type: MCH

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above hollow)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	SAME				+	26	QUEJ-T	M	3	8.5ft	+
2	↓	↓	↓	↓	↓	27					
3	↓	↓	↓	↓	↓	28					
4	↓	↓	↓	↓	↓	29					
5	↓	↓	↓	↓	↓	30					
6	↓	↓	↓	↓	↓	31					
7	↓	↓	↓	↓	↓	32					
8	↓	↓	↓	↓	↓	33					
9	QUEJ-T	M	3	8.5ft	+	34					
10	↓	↓	↓	↓	↓	35					
11	↓	↓	↓	↓	↓	36					
12	↓	↓	↓	↓	↓	37	QUEJ-T	M	3	8ft	+
13	↓	↓	↓	↓	↓	38					
14	SAME				+	39	QUEJ-T	M	3	12ft	+
15	SAME					40					
16	"	"	"	"	"	41					
17	Chamise	D	4	6ft	+	42					
18	↓	↓	↓	↓	↓	43					
19	↓	↓	↓	↓	↓	44	QUEJ-T	M	3	7.5ft	+
20	SAME					45					
21					-	46					
22					-	47					
23					-	48					
24	BROWNAD	D	1	5	+	49					
25					-	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} \times 100$

20/25 = 80%

\*mistake on oaks  
Woodrat sp

Que J-T = Quercus berberidifolia

## CWHR HABITAT ELEMENT CHECK LIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT	I	LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 3-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb)  b		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - > 20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
	DUFF - Non-structured decaying mater		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
O	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area		TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
I	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface	I	SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL	I	SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted; >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for mine rails



original location burned - moved point here  
 near burn area

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
 NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP AL Plot Number: MCH38A Location: Castaic TL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above budout)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

patchy

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	BROMAD	D	1	1	+	20	BROMAD	D	1	3	+
2	"	D	1	10	+	27	"	"	"	"	"
3	SALMEL	M	3	45	+	28	BROMAD	D	1	3	+
4	"	"	"	"	"	29	"	D	1	3	+
5	"	"	"	"	"	30	"	"	"	"	"
6	"	"	"	"	"	31	BROMAD	J	1	10	+
7	"	"	"	"	"	32	BROMAD	D	1	4	+
8	BROMAD	D	1	2	+	33	"	"	"	"	"
9	POASEC	D	2	17	+	34	"	"	"	"	"
10	BROMAD	D	1	7	+	35	"	"	"	"	"
11	"	D	1	8	+	36	"	"	"	"	"
12	POASEC	D	2	13	+	37	"	"	"	"	"
13	SALMEL	M	3	36	+	38	BROTEC	D	2	12	+
14	"	"	"	"	"	39	BROMAD	D	2	14	+
15	BROHOR?	D	2	13	+	40	"	"	"	"	"
16	APEFAS	M	3	81	+	41	BROMAD	D	1	8	+
17	"	"	"	"	"	42	BROHOR	D	2	13	+
18	"	"	"	"	"	43	"	D	1	10	+
19	SALMEL	M	3	46	+	44	"	"	"	"	"
20	"	"	"	"	"	45	"	"	"	"	"
21	"	"	"	"	"	46	BROMAD	D	1	10	+
22	BROMAD	D	1	4	+	47	<del>-----</del>	<del>-----</del>	<del>-----</del>	<del>-----</del>	<del>-----</del>
23	BROTEC	D	1	2	+	48	"	"	"	"	"
24	BROHOR	D	1	9	+	49	"	"	"	"	"
25	APEFAS	M	3	63	+	50	BROHOR	D	1	8	+

SALMEL = SALLEN

26/26 = 100%

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover = (# veg. hits/25 or 30) \* 100

dirt bike trails

APEFAS = chamise

Hesperoyucca whipplei  
 Arena fat

Alium sisymbrium  
 Quercus herb.

patchy Arctostaphylos  
 Malina



mixed chap?  
 a lot of chamise  
 cover, however,  
 many other  
 species intermixed

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
 NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP Plot Number: MCH 38B Location: Castaic TL

Visual estimate before sampling; CWHR habitat type: AL CSU

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	BROMAD	D	1	9	+	16	ERIFAS	M	3	89	+
2	"	D	1	2	+	17	BROMAD	D	1	7	+
3	"	D	1	4	+	28					
4	"	D	1	5	+	29					
5	"	D	1	4	+	30					
6					-	31					
7					-	32					
8	BROMAD	D	1	2	+	33					
9	Haemodorum	M	3	26	+	34					
10						35					
11						36					
12						37					
13	BROMAD	D	1	3	+	38					
14	"	D	1	3	+	39					
15					-	40					
16					-	41					
17					-	42					
18	Forb unk	D	2	25	+	43					
19	BROMAD	D	1	6	+	44					
20	"	D	1	6	+	45					
21	POASCE	D	1	10	+	46					
22	SAL2	M	3	62	+	47					
23						48					
24						49					
25						50					

VEGETATION COVER MEASUREMENT

21/26 = 81%

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover = (# veg. hits/25 or 30) \* 100

ERIFAS  
 → Salvia #2, need to ID  
 ↳ Salvia mellifera

Opuntia bas.  
 Conosthus

denser area

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP Plot Number: MCH38C Location: Castaic TL

Visual estimate before sampling: CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0"	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9"	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9"	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0"	D	Dense cover	≥ 60.0% all types

don

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	BROMAD	D	1	7	+	26	BROMAD	D	1	5	+
2	POASEC	D	1	11	+	27					
3	BROMAD	D	1	6	+	28					
4	"	D	1	10	+	29					
5	"	D	1	6	+	30					
6	POASEC	D	1	9	+	31					
7	ADEFAS	M	3	97	+	32	BROMAD	D	1	5	+
8	↓					33	POASEC	D	2	17	+
9	↓					34	BROMAD	D	1	10	+
10	↓					35					
11	BROMAD	D	1	4	+	36	SAL2	M	3	10	+
12					+	37	↓				↓
13	BROMAD	D	1	5	+	38					
14	ADEFAS	M	3	97	+	39					
15	↓					40					
16	↓					41					
17	ADEFAS	M	3	102	+	42					
18	↓					43					
19	↓					44					
20	↓					45					
21	↓					46					
22	↓					47					
23	↓					48	Opuntia	M	3	6	+
24	Dead shrub	D		37	+	49	BROMAD	D	1	8	+
25	"	"		"	"	50	"	D	1	3	+

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

SAL 2 = SALMEL  
26/26 = 100%

MC#39

### CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	I	LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border		LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 3-3" diam.
BIRDS, MED. - 110-450g (4oz-1lb)  b	I	LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
BIRDS, SMALL - < 110g (4oz)	I	LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg
BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
CAMPGROUND		MOSS - Bryophytes	O	STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	O	TRANSMISSION LINES
FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area		TREE LEAVES
FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
FLOWERS	I	RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	I	ROOTS		TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
GRAIN - A single, hard cereal seed	I	SAND DUNE		TREE/WATER - Interface
GRAMINOIDS - Grass-like plants	I	SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
INSECTS, TERRESTRIAL	I	SHRUB/WATER - Interface		WATER - Any source of free water
INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec. flows
INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
LAKES - Permanent >2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for mine rats

original location burned, moved here

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/17/18 Sample Crew: LP Plot Number: MCH39A Location: Castaic TL  
Visual estimate before sampling; CWHR habitat type: AL  
CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 1.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1						26	ADEFAS	M	3	9.4	+
2						27					
3						28					
4						29					
5	ADEFAS	M	3	7.5 ft	+	30					
6						31	BROMAD	D	1	4	+
7						32	"	D	1	4	+
8	ADEFAS	M	3	6.4	+	33					
9						34	BROMAD	D	1	6	+
10						35	"	D	1	6	+
11						36	"	D	1	9	+
12						37	PVASEL	D	2	18	+
13						38	BROMAD	D	1	5	+
14						39	BROMAD	P	1	6	+
15						40					
16	ERIFAS	M	2	3.3	+	41	BROMAD	D	1	6	+
17	"	"	"	"	"	42	BROMAD	D	1	5	+
18	ERIFAS	Y	2	4.0	+	43					
19						44	BROMAD	D	1	5	+
20						45	"	D	1	5	+
21	BROMAD	D	1	6	+	46					
22	"	D	1	11	+	47					
23	Cen sp	M	3	8.9	+	48	BROMAD	D	1	10	+
24						49					
25						50					

VEGETATION COVER MEASUREMENT

24/26 = 92%

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

→ oak canopies

woodrat nest

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/17/18 Sample Crew: LP Plot Number: MCH39B Location: Castaic TL

Visual estimate before sampling; CWHR habitat type: AL CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bulge)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (IT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (IT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1						20	ARC sp?	M	3	7.5 ft	+
2						27					
3						28					
4						29					
5	Desert shrub			32	+	30					
6	ADEFAS	D	2	41	+	31					
7	"	"	"	"	"	32					
8	Desert shrub			36	+	33					
9	ERIFAS	M	3	29	+	34					
10	"	"	"	"	"	35					
11						36					
12	BROMAD	D	1	2	+	37					
13						38					
14	ERIFAS	Y	2	29	+	39					
15	Desert shrub			51	+	40					
16	ADEFAS	M	3	55	+	41	BROMAD	D	1	4	+
17	BROMAD	D	1	1	+	42					
18	ERIFAS	M	3	41	+	43					
19	SAL2	M	3	40	+	44					
20	SAL2	M	3	41	+	45					
21	ERIFAS	M	3	36	+	46					
22						47	BROMAD	D	1	4	+
23						48	"	D	1	7	+
24	BROMAD	D	1	6	+	49					
25	ADEFAS	M	3	65 ft	+	50	YUJCEL	D	2	21	+

Arctostaphylos

SALMEL ←

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

23/26 = 88%

cleared "trail" running through center

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/17/18 Sample Crew: LP AL Plot Number: MCH39C Location: Castaic TL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above hollow)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

more than other plots

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	"	"	"	"	"	26	SAL 2	M	3	51	+
2	ERIFAS	M	3	33	+	27					
3	↓		↓		↓	28					
4	↓		↓		↓	29					
5	ERIFAS	M	3	28	+	30					
6	SAL 2	M	3	60	+	31					
7	"	"	"	"	"	32					
8	ERIFAS	M	3	19	+	33					
9	BROMAD	D	1	3	+	34					
10					-	35					
11	BROMAD	D	1	3	+	36					
12					-	37					
13	SAL 2	D	3	46	+	38					
14	"	"	"	"	"	39					
15					-	40					
16					-	41					
17					-	42					
18	Dead shrub			51	+	43					
19	↓		↓		↓	44	BROMAD	D	1	18	+
20	↓		↓		↓	45					
21	SAL 2	M	3	54	+	46					
22	↓		↓		↓	47					
23						48	BROMAD	D	1	6	+
24	↓		↓		↓	49	"	D	1	6	+
25	↓		↓		↓	50	"	D	1	9	+

SALMEL

SALMEL

SALMEL

**VEGETATION COVER MEASUREMENT**

Woodrat nest

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

21/26 = 81%



10-2-18 SA, DL

CWHR HABITAT ELEMENT CHECK LIST

MCP-40 = MCH

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

Dead Endicthen

ACORNS - Fruit of an oak	LAYER, HERBACEOUS >10% herb understory	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	LAYER, SHRUB >10% shrub understory I, O	SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.	LAYER, TREE >10% subcanopy trees	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	LICHENS	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	LITHIC - Rock smaller <10" diam	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border	LITTER - Residue <1" in diam I, O	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg within veg area	LOG, LARGE (HOLLOW) >20" diam	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit	LOG, LARGE (ROTTEN) >20" diam	SOIL, FRIABLE - Easily crumbled I, O
BIRDS, LARGE - > 450g (1lb) I, O	LOG, LARGE (SOUND) >20" diam	SOIL, GRAVELLY - Gravel 3-3" diam
BIRDS, MED. - 110-450g (4oz-1lb) 111111111 I, O	LOG, MEDIUM (HOLLOW) 10-20" diam	SOIL, ORGANIC - >20% organic matter (wght)
BIRDS, SMALL - < 110g (4oz) I, O	LOG, MEDIUM (ROTTEN) 10-20" diam	SOIL, SALINE - Alkaline soils/veg
BOGS - Low-lying, residue rich areas	LOG, MEDIUM (SOUND) 10-20" diam	SOIL, SANDY - Sand 0.5-2mm diam I, O
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area I	MAMMALS, LARGE - > 2270g (5lb) I, O	SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc. 0	MAMMALS, MED. - 110-2270g (4oz-5lb) I, O	SPRINGS, HOT
BURROW - Excavation made by animal	MAMMALS, SMALL - 10g (4oz) I, O	SPRINGS, MINERAL
CAMPGROUND	MOSS - Bryophytes	STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter	MUD FLATS - contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	NECTAR	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face	NEST BOX - Constructed nesting cavity	STUMP (ROTTEN) - snag < 3m (10') high
CONES - From gymnosperm trees 0	NEST PLATFORM - Const large platform	STUMP (SOUND) - snag < 3m (10') high
DUFF - Non-structured decaying matter	NEST ISLAND - Man-made nesting island	TALUS - Slope from rock accumulation
DUMP - Sanitary landfill	NUTS - Hard-shelled, dry fruit	TIDEPOOLS
EGGS - Any bird or reptile eggs	PACK STATION - with assoc. human use	TRANSMISSION LINES
FENCES - Any type 0	PONDS - Permanent, <2ha (5 acres) surf area	TREE LEAVES 0
FERN - Spore-forming plants with fronds	REPTILES I, O	TREE, BROKEN LIVE TOP >11" dbh
FISH	RIPARIAN INCLUSION - Riparian veg (small)	TREE, W/ CAVITIES
FLOWERS I, O	RIVERS - Perm. >6m (20') wide in dry season	TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons I, O	ROCK - Outcrop >10" diam	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	ROOTS	TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.	SALT PONDS - Saline ponds	TREE/SHRUB - Interface 0
GRAIN - A single, hard cereal seed	SAND DUNE	TREE/WATER - Interface
GRAMINOIDS - Grass-like plants	SAP	TREES, FIR - <i>Abies sp</i> >11" dbh
GRASS/AGRICULTURE - Interface	SEEDS - Other than listed above	TREES, HARDWOOD - >11" dbh
GRASS/WATER - Interface	SHRUB/AGRICULTURE - Interface	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air I, O	SHRUB GRASS - Interface	VERNAL POOLS
INSECTS, TERRESTRIAL I, O	SHRUB WATER - Interface	WATER - Any source of free water
INVERTEBRATES I, O	SHRUBS - Woody plants, not trees I, O	WATER, FAST - Unstilled, >2ft/sec flows
INVERTEBRATES, AQUATIC	SLASH, LARGE (ROTTEN) Residue 3-10" diam	WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water	SLASH, LARGE (HOLLOW) Residue 3-10" diam	WATER, SLOW - Some silt, flows < 5ft/sec.
KELP - Large, coarse, brown algae	SLASH, LARGE (SOUND) Residue 3-10" diam	WATER/AGRICULTURE - Interface
LAKES - Permanent > 2ha (5 acres)	SLASH, SMALL Residue 1-3" diameter	WHARF

MINE - excavated for minerals

Deer scat on walk out

10/2/18 SA, DC MCP-40A ~~Point~~ Gorman Creek

CWTR Class

- 1 Se
- 2 XS
- 3 M
- 4 D

Canopy Closure

- S 10-25
- P 25-40
- M 40-60
- (D) >60

ok. CWTR Veg Type  
 Eriodictyon dominant  
 Eri NATU less common  
 Elymus COND uncomm  
 MAR VULG "

Pl#	Species	Age	% Dec.	Ht.	Hit/Miss
0	ERI NATU	m	3	48 in.	+
1	"	"	"	"	+
2	"	"	"	51 in.	+
3	↓	↓	↓	↓	+
4	↓	↓	↓	↓	+
5	↓	↓	↓	↓	+
6	ERIODICTYON	m	2	80 in.	+
7	↓	↓	↓	↓	+
8	↓	↓	↓	↓	+
9	↓	↓	↓	↓	+
10	↓	↓	↓	↓	+
11	↓	↓	↓	↓	+
12	↓	↓	↓	↓	+
13	ERIODICTYON	m	2	54 in.	+
14	↓	↓	↓	↓	+
15	↓	↓	↓	↓	+
16	↓	↓	↓	↓	+
17	ERIODICTYON	m	2	72 in.	+
18	↓	↓	↓	↓	+
19	ERI NATU	m	3	41 in.	+
20	↓	↓	↓	↓	+
21	↓	↓	↓	↓	+
22	↓	↓	↓	↓	+
22	ERIODICTYON	m	2	70 in.	+
23	↓	↓	↓	↓	+
24	↓	↓	↓	↓	+
25	↓	↓	↓	↓	+

$25/26 = 96\%$

Other spp.

10/2/18 SA, DL MCP-40B Gorman Creek

CWTR CLASS

- 1 Se
- 2 YS
- 3 M
- 4 D

Canopy Closure

- S 10-25
- P 25-40
- M 40-60
- D >60

Pt #	Species	Age	% Dec.	Ht.	Hit/Miss
0	ERIODICTYON	M	3	73 in.	+
1	↓	↓	↓	↓	+
2	↓	↓	↓	↓	+
3	↓	↓	↓	↓	+
4	↓	↓	↓	↓	—
5	↓	↓	↓	↓	—
6	ERIODICTYON	M	2	66 in.	+
7	↓	↓	↓	↓	+
8	↓	↓	↓	↓	+
9	↓	↓	↓	↓	+
10	↓	↓	↓	↓	+
11	↓	↓	↓	↓	+
12	↓	↓	↓	↓	+
13	↓	↓	↓	↓	—
14	↓	↓	↓	↓	—
15	↓	↓	↓	↓	—
16	↓	↓	↓	↓	—
17	ERIODICTYON	M	2	50 in.	+
18	↓	↓	↓	↓	+
19	↓	↓	↓	↓	+
20	↓	↓	↓	↓	+
21	↓	↓	↓	↓	+
22	ERIODICTYON	S	1	38 in.	+
23	↓	↓	↓	↓	+
24	↓	↓	↓	↓	—
25	↓	↓	↓	↓	—

18/26 = 69%

Other spp.

10/2/18 SA, DL MCP-40C Gorman Creek

CWHR CLASS

1 Se  
 2 XS  
 3 M  
 4 D

Canopy Closure

S 10-25  
 P 25-40  
 M 40-60  
 D 760

Pl. #	Species	Age	% Dec.	Ht.	Hit / Miss
0	ERIODICTYON	m	2	43 in.	+
1	↓	↓	↓	↓	+
2	↓	↓	↓	↓	+
3	↓	↓	↓	↓	+
4	↓	↓	↓	↓	-
5	↓	↓	↓	↓	-
6	ERIODICTYON	m	2	39 in.	+
7	↓	↓	↓	↓	+
8	↓	↓	↓	↓	-
9	↓	↓	↓	↓	-
10	↓	↓	↓	↓	-
11	↓	↓	↓	↓	-
12	↓	↓	↓	↓	-
13	↓	↓	↓	↓	-
14	ART TRIDENTATA	m	3	59 in.	+
15	↓	↓	↓	↓	+
16	↓	↓	↓	↓	+
17	↓	↓	↓	↓	+
18	↓	↓	↓	↓	+
19	↓	↓	↓	↓	+
20	ERIODICTYON	Se	↓	35 in.	+
21	↓	↓	↓	↓	+
22	ERIODICTYON	m	2	75 in.	+
23	↓	↓	↓	↓	+
24	↓	↓	↓	↓	+
25	↓	↓	↓	↓	+

Old, dead Eriodictyon litte

19/26 = 73%

Other spp

MAC41

### CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

I	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory	I	SNAG, LARGE (ROTTEN) >30" dbh
O	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory	I	SNAG, LARGE, (SOUND) >30" dbh
O	AMPHIBIANS - Frogs, Toads, etc.	I	LAYER, TREE >10% subcanopy trees	I	SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT	I	LICHENS	I	SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.	I	SNAG, SMALL (ROTTEN) <15" dbh
O	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam.	I	SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area	I	LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
I	BERRIES - Small, pulpy fruit	I	LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.	I	SOIL, GRAVELLY - Gravel 8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111	I	LOG, MEDIUM (HOLLOW) 10-20" diam	I	SOIL, ORGANIC - >20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)	I	LOG, MEDIUM (ROTTEN) 10-20" diam.	I	SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam.	I	SOIL, SANDY - Sand .05-2mm diam.
I	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)	I	SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)	I	SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)	I	SPRINGS, MINERAL
	CAMPGROUND	I	MOSS - Bryophytes	I	STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter	I	MUD FLATS- contiguous with water body	I	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	I	NECTAR	I	STREAMS, PERMANENT
O	CLIFF - Steep, vertical overhanging face	I	NEST BOX - Constructed nesting cavity	I	STUMP (ROTTEN)-snag<3m (10') high
I	CONES - From gymnosperm trees	I	NEST PLATFORM - Const. large platform	I	STUMP (SOUND)-snag<3m (10') high
I	DUFF - Non-structured decaying matter	I	NEST ISLAND - Man-made nesting island	I	TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill	I	NUTS - Hard-shelled, dry fruit.	I	TIDEPOLS
I	EGGS - Any bird or reptile eggs	I	PACK STATION - with assoc. human use	I	TRANSMISSION LINES
	FENCES - Any type	I	PONDS - Permanent, <2ha (5 acres) surf. area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES	I	TREE, BROKEN LIVE TOP >11" dbh
	FISH	I	RIPARIAN INCLUSION - Riparian veg. (small)	I	TREE, W/ CAVITIES
O	FLOWERS	I	RIVERS - Perm., >6m (20') wide in dry season	I	TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.	I	TREE/AGRICULTURE - Interface
I	FRUITS - Pulpy fruit	I	ROOTS	I	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.	I	SALT PONDS - Saline ponds	I	TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed	I	SAND DUNE	O	TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants	I	SAP	I	TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface	I	SEEDS - Other than listed above	I	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface	I	SHRUB/AGRICULTURE- Interface	I	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface	I	VERNAL POOLS
I	INSECTS, TERRESTRIAL	I	SHRUB/WATER - Interface	O	WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees	O	WATER, FAST - Unsilted; >2ft/sec. flows
	INVERTEBRATES, AQUATIC	I	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	I	WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water	I	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	O	WATER, SLOW - Some silt.; flows < .5ft/sec.
	KELP - Large, coarse, brown algae	I	SLASH, LARGE (SOUND) Residue 3-10" diam.	I	WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)	I	SLASH, SMALL Residue 1-3" diameter	I	WHARF

MINE - excavated for minerals

\* similar to SMC52 → call the same (both MHC)

only 1 plot for this location  
steep slopes  
small area

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET

Date: 10/4/18 Sample Crew: LP, AL Plot Number: MHC41A Location: Buck Creek

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: MHC → check ✓  
Structure: Even-structure:  or Uneven-structure:  → however, appears to be chaparral

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1							26						
2	PSEMEN	over	18	18	35	SE	27						
3	PSEMEN	over	16	15	25	SW	28						
4	dead PSEMEN	snags			36 dbh	SE	29						
5	dead PSEMEN	snags			22 dbh	SW	30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

OVERSTORY CANOPY COVER MEASUREMENT

15/25 = 60%

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100  
N-S: 0 0 X X 0 0 X 0 X X X X X

E-W: 0 X X 0 X X X 0 0 0 X 0

- Pseudotsuga menziesii
- Arctostaphylos
- ~~Rubus tridentatus~~
- Yucca
- Cercocarpus

- Toyon
- Lonicera
- Quercus → some tree, some shrub
- Poa secunda
- Bromus diandrus
- gnatcatcher
- Cooper's hawk
- scrub jay
- bear scat



10/4/2018 IC/DL

CWHR HABITAT ELEMENT CHECK LIST

only 1? ✓ = VRI  
MHW 42

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	10	LAYER, HERBACEOUS >10% herb. understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp	0	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE (SOUND) >30" dbh
1/0	AMPHIBIANS - Frogs, Toads, etc.	1	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	0	LICHENS	1	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	10	LITHIC - Rock scatter <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
10	BANK - Cut, hollow or lake border	10	LITTER - Residue <1" in diam.	1	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg. within veg. area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam.	<input type="checkbox"/>	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROTTEN) >20" diam.	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - >450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam.	1	SOIL, GRAVELLY - Gravel 3-3" diam.
1/0	BIRDS, MED. - 110-450g (4oz-1lb)   01111111	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam.	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic matter (wght)
10	BIRDS, SMALL - <110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROTTEN) 10-20" diam.	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg
<input type="checkbox"/>	BOGS - Low lying, residue rich areas	1	LOG, MEDIUM (SOUND) 10-20" diam.	1	SOIL, SANDY - Sand .05-2mm diam.
10	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	10	MAMMALS, LARGE - >2270g (5lb) bobcat	<input type="checkbox"/>	SPRINGS-Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc.	10	MAMMALS, MED. - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
10	BURROW - Excavation made by animal	10	MAMMALS, SMALL - <110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	0	STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS- contiguous with water body	10	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	0	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN)-snag<3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND)-snag<3m (10') high
10	DUFF - Non-structured decaying matter	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS-Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit.	<input type="checkbox"/>	TIDEPOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc. human use	<input type="checkbox"/>	TRANSMISSION LINES
<input type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf area	10	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	10	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)	1	TREE, W/ CAVITIES
10	FLOWERS	<input type="checkbox"/>	RIVERS - Perm., >6m (20') wide in dry season	1	TREE, W/ LOOSE BARK
10	FORBS - Herbaceous dicotyledons	0	ROCK - Outcrop >10" diam.	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
10	FRUITS - Pulpy fruit	1	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/>	SALT PONDS - Saline ponds	10	TREE/SHRUB - Interface
10	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	1	TREE/WATER - Interface
10	GRAMINOIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - Abies sp >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	10	SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE- Interface	<input type="checkbox"/>	TREES, PINE - Pinus sp. > 11" dbh
10	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB/GRASS - Interface	<input type="checkbox"/>	VERNAL POOLS
10	INSECTS, TERRESTRIAL	0	SHRUB/WATER - Interface	10	WATER - Any source of free water
10	INVERTEBRATES	0	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsilted; >2ft/sec. flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	10	WATER, SLOW - Some silt; flows < .5ft/sec.
<input type="checkbox"/>	KELP - Large, coarse, brown algae	1	SLASH, LARGE (SOUND) Residue 3-10" diam.	<input type="checkbox"/>	WATER/AGRICULTURE- Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)	1	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WIIARF

MINE - excavated for minerals

over →

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

Date: 10/4/14 Sample Crew: DL IC Plot Number: 174W-42A Location: Pyramid Lake

Visual estimate at plot center before sampling CWHR habitat type, size class and canopy closure class: VRI  
Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: ⊗

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
②	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
③	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	<b>M</b>	Mod. Cover	40.0-59.9%
④	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	Pine	0	5			SE	26						
2	Pine	0	17			SE	27						
3	Pine	0	14, 12, 12			SE	28						
4	Pine	0	16	40	50	SE	29						
5	Sallas	o/u	43.11	20	20	SW	30						
6	Sallas	0	5	10	28	SW	31						
7	Pine	0	16	15	35	SW	32						
8	Pine	0	10			SW	33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**  
Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.  
Percent Cover = ( (no. hits)/25 ) \* 100.

N-S: 0 0 0 0 0 0 + + + + + + + + + + + + E-W: + + + + + + 0 0 + + + + + +

17/25 = 68

(Center stake)  
Tamarix Salix eri male Toxic olive Elycon Heliotropa Astragalus p? (lands look up)

## CWHR HABITAT ELEMENT CHECK LIST

change?

✓

MHW-

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input checked="" type="checkbox"/> ACORNS - Fruit of an oak	<input checked="" type="checkbox"/> LAYER, HERBACEOUS >10% herb. understory	<input type="checkbox"/> SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/> ALGAE - Any algae other than kelp	<input type="checkbox"/> LAYER, SHRUB >10% shrub understory	<input type="checkbox"/> SNAG, LARGE (SOUND) >30" dbh
<input type="checkbox"/> AMPHIBIANS - Frogs, Toads, etc.	<input checked="" type="checkbox"/> LAYER, TREE >10% subcanopy trees	<input type="checkbox"/> SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/> AQUATICS, EMERGENT	<input checked="" type="checkbox"/> LICHENS	<input type="checkbox"/> SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/> AQUATICS, SUBMERGED	<input type="checkbox"/> LITHIC - Rock scatter <10" diam.	<input type="checkbox"/> SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/> BANK - Cut, hollow or lake border	<input type="checkbox"/> LITTER - Residue <1" indiam.	<input type="checkbox"/> SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/> BARREN - Devoid of veg. within veg. area	<input type="checkbox"/> LOG, LARGE (HOLLOW) >20" diam.	<input checked="" type="checkbox"/> SOIL, AERATED - Well drained
<input type="checkbox"/> BERRIES - Small, pulpy fruit	<input type="checkbox"/> LOG, LARGE (ROTTEN) >20" diam.	<input checked="" type="checkbox"/> SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/> BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/> LOG, LARGE (SOUND) >20" diam.	<input type="checkbox"/> SOIL, GRAVELLY - Gravel >3" diam.
<input checked="" type="checkbox"/> BIRDS, MED. - 110-450g (4oz-1b) (b1111111)	<input type="checkbox"/> LOG, MEDIUM (HOLLOW) 10-20" diam.	<input type="checkbox"/> SOIL, ORGANIC - > 20% organic matter (wght.)
<input checked="" type="checkbox"/> BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/> LOG, MEDIUM (ROTTEN) 10-20" diam.	<input type="checkbox"/> SOIL, SALINE - Alkaline soils/veg.
<input type="checkbox"/> BOGS - Low-lying, residue rich areas	<input type="checkbox"/> LOG, MEDIUM (SOUND) 10-20" diam.	<input checked="" type="checkbox"/> SOIL, SANDY - Sand .05-2mm diam.
<input type="checkbox"/> BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/> MAMMALS, LARGE - > 2270g (5lb.)	<input type="checkbox"/> SPRINGS-Freshwater springs, seeps
<input type="checkbox"/> BUILDINGS - Houses, sheds, etc.	<input checked="" type="checkbox"/> MAMMALS, MED. - 110-2270g (4oz-5lb)	<input type="checkbox"/> SPRINGS, HOT
<input type="checkbox"/> BURROW - Excavation made by animal	<input checked="" type="checkbox"/> MAMMALS, SMALL - < 110g (4oz)	<input type="checkbox"/> SPRINGS, MINERAL
<input type="checkbox"/> CAMPGROUND	<input type="checkbox"/> MOSS - Bryophytes	<input type="checkbox"/> STEEP SLOPE - Slopes > 50%
<input type="checkbox"/> CARRION - Any dead animal matter	<input type="checkbox"/> MUD FLATS- contiguous with water body	<input type="checkbox"/> STREAMS, INTERMITTENT
<input type="checkbox"/> CAVE - Natural chamber open to surface	<input checked="" type="checkbox"/> NECTAR	<input type="checkbox"/> STREAMS, PERMANENT
<input type="checkbox"/> CLIFF - Steep, vertical overhanging face	<input type="checkbox"/> NEST BOX - Constructed nesting cavity	<input type="checkbox"/> STUMP (ROTTEN)-snag<3m (10') high
<input checked="" type="checkbox"/> CONES - From gymnosperm trees	<input type="checkbox"/> NEST PLATFORM - Const. large platform	<input checked="" type="checkbox"/> STUMP (SOUND)-snag<3m (10') high
<input checked="" type="checkbox"/> DUFF - Non-structured decaying matter	<input type="checkbox"/> NEST ISLAND - Man-made nesting island	<input type="checkbox"/> TALUS-Slope from rock accumulation
<input type="checkbox"/> DUMP - Sanitary landfill	<input type="checkbox"/> NUTS - Hard-shelled, dry fruit.	<input type="checkbox"/> TIDEPOOLS
<input type="checkbox"/> EGGS - Any bird or reptile eggs	<input type="checkbox"/> PACK STATION - with assoc. human use	<input checked="" type="checkbox"/> TRANSMISSION LINES
<input checked="" type="checkbox"/> FENCES - Any type	<input type="checkbox"/> PONDS - Permanent, <2ha (5 acres) surf. area	<input checked="" type="checkbox"/> TREE LEAVES
<input type="checkbox"/> FERN - Spore-forming plants with fronds	<input checked="" type="checkbox"/> REPTILES	<input type="checkbox"/> TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/> FISH	<input type="checkbox"/> RIPARIAN INCLUSION - Riparian veg. (small)	<input checked="" type="checkbox"/> TREE, W/ CAVITIES
<input checked="" type="checkbox"/> FLOWERS	<input type="checkbox"/> RIVERS - Perm., >6m (20') wide in dry season	<input checked="" type="checkbox"/> TREE, W/ LOOSE BARK
<input checked="" type="checkbox"/> FORBS - Herbaceous dicotyledons	<input type="checkbox"/> ROCK - Outcrop >10" diam.	<input type="checkbox"/> TREE/AGRICULTURE - Interface
<input type="checkbox"/> FRUITS - Pulpy fruit	<input type="checkbox"/> ROOTS	<input checked="" type="checkbox"/> TREE/GRASS - Interface
<input type="checkbox"/> FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/> SALT PONDS - Saline ponds	<input type="checkbox"/> TREE/SHRUB - Interface
<input checked="" type="checkbox"/> GRAIN - A single, hard cereal seed	<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREE/WATER - Interface
<input checked="" type="checkbox"/> GRAMINOIDS - Grass-like plants	<input type="checkbox"/> SAP	<input type="checkbox"/> TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/> GRASS/AGRICULTURE - Interface	<input type="checkbox"/> SEEDS - Other than listed above	<input checked="" type="checkbox"/> TREES, HARDWOOD - >11" dbh
<input type="checkbox"/> GRASS/WATER - Interface	<input type="checkbox"/> SHRUB/AGRICULTURE - Interface	<input type="checkbox"/> TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input checked="" type="checkbox"/> INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/> SHRUB GRASS - Interface	<input type="checkbox"/> VERNAL POOLS
<input checked="" type="checkbox"/> INSECTS, TERRESTRIAL	<input type="checkbox"/> SHRUB WATER - Interface	<input type="checkbox"/> WATER - Any source of free water
<input checked="" type="checkbox"/> INVERTEBRATES	<input checked="" type="checkbox"/> SHRUBS - Woody plants, not trees	<input type="checkbox"/> WATER, FAST - Unsited; >2ft/sec. flows
<input type="checkbox"/> INVERTEBRATES, AQUATIC	<input type="checkbox"/> SLASH, LARGE (ROTTEN) Residue 3-10" diam.	<input type="checkbox"/> WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/> JETTY - Rock/concrete extending into water	<input type="checkbox"/> SLASH, LARGE (HOLLOW) Residue 3-10" diam.	<input type="checkbox"/> WATER, SLOW - Some silt; flows < .5ft/sec
<input type="checkbox"/> KELP - Large, coarse, brown algae	<input checked="" type="checkbox"/> SLASH, LARGE (SOUND) Residue 3-10" diam.	<input type="checkbox"/> WATER/AGRICULTURE - Interface
<input type="checkbox"/> LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/> SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/> WHARF

MINE - excavated for minerals

# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10/3/19 Sample Crew: DLIC Plot Number: MHW43A/B Location: South Pyramid Lake

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: LOW  
Structure: Even-structure: \_\_\_\_\_, or Uneven-structure: X

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
<u>1</u>	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
<u>2</u>	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
<u>3</u>	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	<u>M</u>	Mod. Cover	40.0-59.9%
<u>4</u>	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
<u>5</u>	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understory trees depending on relative crown position, while suppressed trees should always be understory trees.

MHW43B

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	<u>Q. lob</u>	<u>over</u>	<u>12</u>	<u>30</u>	<u>40</u>	<u>NW</u>	26	<u>Q. lob</u>	<u>over</u>	<u>12</u>	<u>25</u>	<u>45</u>	<u>NW</u>
2	<u>Q. lob</u>	<u>over</u>	<u>12</u>	<u>30</u>	<u>45</u>	<u>NW</u>	27	<u>Q. lob</u>	<u>over</u>	<u>5</u>	<u>15</u>	<u>40</u>	<u>NW</u>
3	<u>Q. lob</u>	<u>over</u>	<u>10, 12, 16</u>	<u>20</u>	<u>45</u>	<u>SW</u>	28	<u>Q. lob</u>	<u>over</u>	<u>8</u>	<u>10</u>	<u>37</u>	<u>NW</u>
4	<u>Q. lob</u>	<u>over</u>	<u>11</u>	<u>10</u>	<u>35</u>	<u>SE</u>	29	<u>Q. lob</u>	<u>over</u>	<u>9</u>	<u>30</u>	<u>43</u>	<u>NW</u>
5	<u>Q. lob</u>	<u>over</u>	<u>16</u>	<u>15</u>	<u>33</u>	<u>SE</u>	30	<u>Q. lob</u>	<u>over</u>	<u>15</u>	<u>30</u>	<u>48</u>	<u>SW</u>
6	<u>Q. lob</u>	<u>over</u>	<u>16</u>	<u>35</u>	<u>48</u>	<u>SE</u>	31	<u>Q. lob</u>	<u>over</u>	<u>20</u>	<u>25</u>	<u>51</u>	<u>SW</u>
7	<u>Q. lob</u>	<u>over</u>	<u>13</u>	<u>20</u>	<u>30</u>	<u>SE</u>	32	<u>Q. lob</u>	<u>over</u>	<u>8</u>	<u>15</u>	<u>30</u>	<u>SW</u>
8	<u>Q. lob</u>	<u>over</u>	<u>10</u>	<u>15</u>	<u>43</u>	<u>NE</u>	33	<u>Q. lob</u>	<u>over</u>	<u>9</u>	<u>10</u>	<u>30</u>	<u>SE</u>
9	<u>Q. lob</u>	<u>over</u>	<u>13</u>	<u>20</u>	<u>40</u>	<u>NE</u>	34	<u>Q. lob</u>	<u>over</u>	<u>9</u>	<u>10</u>	<u>30</u>	<u>SE</u>
10							35						
11							36						
12							37						
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22							47						
23							48						
24							49						
25							50						

### OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$ .

N-S: 0 + + + + + 0 0 0 0 +  
43B - 0 0 0 0 + + + + + + + + +  
(Center stake)

E-W: + + + + + 0 + + + + + + + + + 19/25 =  
1 0 0 0 + + + + + + + + + 17/25 =

Addsp: corefla, eriop conf, arena, stiepa c. Addsp(43B) erielon, bar chevnil  
Anthriscus calcalis

# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10/13/19 Sample Crew: DC IC Plot Number: MHW-113C Location: South Pyramid Lake

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: VOW  
Structure: Even-structure: \_\_\_\_\_, or Uneven-structure: X

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	Q16h	0	12	15	35	SW	26						
2		0	8	15	30	SE	27						
3		0	8			SE	28						
4		0	12	20	45	NW	29						
5		0	9			NW	30						
6		0	8			NW	31						
7		0	7			NW	32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

### OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100.

N-S: 0 0 + + + + 0 0 0 0 0 0 0

E-W: + + + 0 0 0 0 + 0 0 0 8/25 = 32%

(Center stake)

Elymus rostratus  
Rhamnus ilicifolia  
Ceanothus velutinus  
Banksia latifolia  
galapagoensis



MRI ~~44~~ 44

= VRI

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input type="checkbox"/>	LAYER, HERBACEOUS >10% herb understory	<input type="checkbox"/>	SNAG, LARGE (ROT TEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE, (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROT TEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	<input type="checkbox"/>	LITHIC - Rock scatter <10" diam	<input type="checkbox"/>	SNAG, SMALL (ROT TEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border	<input type="checkbox"/>	LITTER - Residue <1" indiam	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg with veg area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam	<input type="checkbox"/>	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROTTEN) >20" diam	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - >450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam	<input type="checkbox"/>	SOIL, GRAVELLY - Gravel 3-3" diam
<input type="checkbox"/>	BIRDS, MED - 110-450g (4oz-1lb) (b11111111)	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic matter (wght)
<input type="checkbox"/>	BIRDS, SMALL - <110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROTTEN) 10-20" diam	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas	<input type="checkbox"/>	LOG, MEDIUM (SOUND) 10-20" diam	<input type="checkbox"/>	SOIL, SANDY - Sand .05-2mm diam
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/>	MAMMALS, LARGE - >2270g (5lb)	<input type="checkbox"/>	SPRINGS-Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc.	<input type="checkbox"/>	MAMMALS, MED - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
<input type="checkbox"/>	BURROW - Excavation made by animal	<input type="checkbox"/>	MAMMALS, SMALL - <110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input type="checkbox"/>	STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS- contiguous with water body	<input type="checkbox"/>	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	<input type="checkbox"/>	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN)-snag<3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const large platform	<input type="checkbox"/>	STUMP (SOUND)-snag<3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying matter	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS-Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit	<input type="checkbox"/>	TIDEPOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc. human use	<input type="checkbox"/>	TRANSMISSION LINES
<input type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf area	<input type="checkbox"/>	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	<input type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input type="checkbox"/>	FLOWERS	<input type="checkbox"/>	RIVERS - Perm, >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/>	SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE/SHRUB - Interface
<input type="checkbox"/>	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
<input type="checkbox"/>	GRAMINOIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	<input type="checkbox"/>	SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASSWATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE- Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB/GRASS - interface	<input type="checkbox"/>	VERNAL POOLS
<input type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUBWATER - Interface	<input type="checkbox"/>	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES	<input type="checkbox"/>	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsalted, >2ft/sec flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROTTEN) Residue 3-10" diam	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam	<input type="checkbox"/>	WATER, SLOW - Some silt, flows < 5ft/sec
<input type="checkbox"/>	KELP - Large, coarse, brown algae	<input type="checkbox"/>	SLASH, LARGE (SOUND) Residue 3-10" diam	<input type="checkbox"/>	WATER/AGRICULTURE- Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/>	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WHARF

MINE - excavated for minerals



~ 1/3 plot inundated (north)

estimated some measurements

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET

\* moved points due to inund inaccessibility

Date 10/1/16 Sample Crew SA, DL, IC, DL, LP, AL Plot Number MRI 11a Location Quail Lake = MRI-44A (red dot)

Visual estimate at plot center before sampling CWHR habitat type, size class and canopy closure class: VR1  
Structure: Even-structure ☒, or Uneven-structure: \_\_\_\_\_

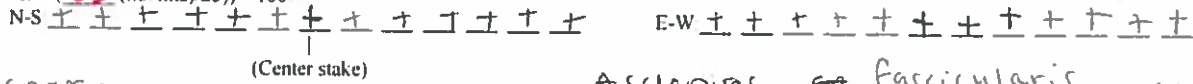
Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<u>Uneven-structure</u> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	POPFRE	over	10.5+18.7	55	40	SW	26						
2	POPFRE	over	24+18	20	40	SE	27						
3	POPFRE	over	42+18+41			SW	28						
4	BALGOO	over	10+12+12+12	30	40	NW	29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0); measured through a sighting tube at 6.2 ft intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft interval. Percent Cover = (25 (no hits)/25) \* 100 = 100% cover



- Song sparrow
- Common loon
- frogs
- barn owl
- motarch butterfly

- Asclepias fascicularis
- Elymus tricooides
- Heliotropus par. = Heliotropium curassavicum
- mulleat (Baccharis salicifolia)
- Juncus balticus
- Urtica dioica

# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10/11/15 Sample Crew: AIH Plot Number: MRI-41B Location: Quail Lake

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: VRI  
Structure: Even-structure:  or Uneven-structure:

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
(3)	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
(4)	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	(D)	Dense Cover	>60.0%
(5)	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g., 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	S	0	12	18	45	SE	26						
2	"	0	8				27						
3	"	0	15				28						
4	"	0	23				29						
5	"	0	7			↓	30						
6	"	0	10			SW	31						
7	"	0	10	78	30		32						
8	"	0	6				33						
9	"	0	12				34						
10	"	0	6				35						
11	"	0	12				36						
12	"	0	15			↓	37						
13	"	0	5			NE	38						
14	"	0	12				39						
15	"	0	16+6+8	20	40		40						
16	"	0	16			↓	41						
17	"	0	10	25	40	NW	42						
18	"	0	5				43						
19	"	0	14				44						
20	"	0	6			↓	45						
21							46						
22							47						
23							48						
24							49						
25							50						

### OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = ( (no. hits)/25 ) \* 100.

N-S: + + + + + + + + + + + + +

E-W: + + + + + + + + + + + + +

100%

↑  
(Center stake)

Plot point at Lake at base center, angle 100°  
Line of site blocked for northern segments

Some as 11A, plus epilobium, Bractys, and therrum, Melolobus indicus, lactuca (last two on upland edge)

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

Date 10/1/18 Sample Crew SA, AL, DL Plot Number 11C Location Quail Lake MRI = MRI-44C

Visual estimate at plot center before sampling CWHR habitat type, size class and canopy closure class VRI  
Structure Even-structure \_\_\_\_\_ or Uneven-structure UNEVEN

SAK  
Est 1

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	SALGOO	0	9 stems	8 ft.	35 ft.	NW	26						
2			(12+14+12+14+13+9+12+10+10) = 106 in.				27						
3							28						
4	SALGOO	0	13	10 ft.	30 ft.	NE	29						
5	SALGOO	0	12+15+9 = 35 in.				30						
6	SALGOO	U	10 in.				31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval

Percent Cover =  $(13 \text{ (no hits)} / 25) * 100$  52% cover  
 N-S = + + + + + = + = = = = E-W + + + + - - + + + - -  
 (Center stake)

Great blue heron

\* No trees in SW, SE  
 Other spp: SAL GOO, BAC SAL, ELY TRJ, Melilotus - no flowers  
 Brachypodium?, Distichlis spicata, BRO TEC

MRI 45 = VR1

### CWHR HABITAT ELEMENT CHECKLIST



Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input type="checkbox"/>	LAYER, HERBACEOUS >10% herb. understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE, (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	<input type="checkbox"/>	LITHIC - Rock scatter <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border	<input type="checkbox"/>	LITTER - Residue <1" in diam.	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg. within veg. area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam.	<input type="checkbox"/>	SOIL, ACRATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROTTEN) >20" diam.	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam.	<input type="checkbox"/>	SOIL, GRAVELLY - Gravel 8-3" diam.
<input type="checkbox"/>	BIRDS, MED. - 110-450g (4oz-1lb) (b1111111)	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam.	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic matter (wght)
<input type="checkbox"/>	BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROTTEN) 10-20" diam.	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas	<input type="checkbox"/>	LOG, MEDIUM (SOUND) 10-20" diam.	<input type="checkbox"/>	SOIL, SANDY - Sand .05-2mm diam.
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/>	MAMMAL, LARGE - > 2270g (5lb.)	<input type="checkbox"/>	SPRINGS - Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc.	<input type="checkbox"/>	MAMMAL, MED. - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
<input type="checkbox"/>	BURROW - Excavation made by animal	<input type="checkbox"/>	MAMMAL, SMALL - < 110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input type="checkbox"/>	STEEP SLOPE - Slope > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS - contiguous with water body	<input type="checkbox"/>	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	<input type="checkbox"/>	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN) - snag <3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND) - snag <3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying matter	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS - Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit	<input type="checkbox"/>	TIDEPOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc. human use	<input type="checkbox"/>	TRANSMISSION LINES
<input type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf. area	<input type="checkbox"/>	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	<input type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input type="checkbox"/>	FLOWERS	<input type="checkbox"/>	RIVERS - Perm., >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam.	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/>	SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE/SHRUB - Interface
<input type="checkbox"/>	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
<input type="checkbox"/>	GRAMINOIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	<input type="checkbox"/>	SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE - Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB/GRASS - Interface	<input type="checkbox"/>	VERNAL POOLS
<input type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB/WATER - Interface	<input type="checkbox"/>	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES	<input type="checkbox"/>	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsilted, >2ft <sup>3</sup> /sec. flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	<input type="checkbox"/>	WATER, SLOW - Some silt; flows < .5ft <sup>3</sup> /sec.
<input type="checkbox"/>	KELP - Large, coarse, brown algae	<input type="checkbox"/>	SLASH, LARGE (SOUND) Residue 3-10" diam.	<input type="checkbox"/>	WATER/AGRICULTURE - Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/>	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WHARF



MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP, AL Plot Number: MR145A Location: Los Alamos CG

Visual estimate at plot center before sampling. CWHR habitat type, size class and canopy closure class. VRI \* change  
Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: (X)

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
<u>1</u>	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
<u>2</u>	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	<u>M</u>	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
<u>5</u>	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<u>Uneven-structure</u> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 m) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft) ..	Ht (ft)	pt-ctr 1/4 quad
1	SALGOO	under	5	6	15	NE	26						
2	POPFRE	over	36	40	50	SE	27						
3	SALGOO	over	30	25	35	SW	28						
<del>4</del>	<del>STAL</del>	<del>under</del>					29						
5							30						
6	POPFRE	under	8+3	10	25	NW	31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.  
Percent Cover =  $\frac{\text{no. hits}}{25} \times 100$ .

N-S: ++ 0 0 0 + + + + + + + E-W: + 0 0 0 + + + + 0 + + +

(Center stake) 18/25 = 72%

juncus balticus  
typha  
stinging nettle  
artica dioica

overflow flood plain  
quercus lobata  
juniper



could not extend  
transect tape  
fully in E-W direction

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET

Date: 10/3/18 Sample Crew: LP, AL Plot Number: MR145B Location: Los Alamos CG

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: VRI  
Structure: Even-structure: ~~Even~~ or Uneven-structure: ~~Uneven~~

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition. ↓ denser over creek		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

most lead  
↑  
juniper

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	JUNIPER	under	6+6+5x3	8	10	NE	26						
2	SALICOID	over	14	15	20	SE	27						
3	SALICOID	over	18	25	30	SW	28						
4	SALICOID	over	8+10+6			SW	29						
5	SALICOID	over	34	15	40	NW	30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100



19/25 = 76%

Sambucus  
Solidago  
populus  
Artemisia (see day 16)



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: LP, AL Plot Number: MRI 45C Location: Los Alamos CG

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: VRI  
Structure: Even-structure \_\_\_\_\_ or Uneven-structure: X

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	≥60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	POPFRE	over	26	30	35	NE	26						
2	SALGOO	over	5	8	20	SE	27						
3	SALGOO	over	6	6	25	SW	28						
4	SALGOO	over	8	10	25	NW	29						
5	POPFRE	over	25			NE	30						
6	SALGOO	over	6			SE	31						
7	SALGOO		6			SE	32						
8	SALGOO		5			SE	33						
9	SALGOO		5			SE	34						
10	SALGOO		6			SE	35						
11	SALGOO		6			SW	36						
12	SALGOO		5			SW	37						
13	SALGOO		6			SW	38						
14	SALGOO		5			SW	39						
15	SALGOO		6			SW	40						
16	SALGOO		10			SW	41						
17	SALGOO		8			NW	42						
18	SALGOO		7			NW	43						
19	SALGOO		5			NW	44						
20	POPFRE		34			NW	45						
21							46						
22							47						
23							48						
24							49						
25							50						

dead  
dead

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $\frac{\text{no. hits}}{25} * 100$   
 N-S: X 0 0 0 X 0 X 0 0 X 0 E-W: X X X X 0 X X X X 0  
 (Center stake)  $18/25 = 72\%$

dead trees counted (only ≥ 5")  
 very little understory, sand, Elymus

PAS 416

checklist only  
plots inaccessible

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE, (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT		LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border	O	LITTER - Residue <1" in diam.	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 1/2-3" diam.
I	BIRDS, MED - 110-450g (4oz-1lb) 1b11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand, .05-2mm diam.
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
I	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
O	CAMPGROUND		MOSS - Bryophytes	I	STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
I	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
I	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area		TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
O	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	O	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit		ROOTS	I	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface	I	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface	O	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST -Unsalted, >2ft/sec. flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.	O	WATER, CREATED BODY - Guzzler, well, etc.
O	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < 5ft/sec.
<input type="checkbox"/>	KELP - Large, coarce, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
O	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

10-2-18 SA, DL

CWHR HABITAT ELEMENT CHECKLIST

PGS-47

→ PGSA on other

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

(✓)

ACORNS - Fruit of an oak	O	LAYER, HERBACEOUS >10% herb understorey	I, O	SNAG, LARGE (ROT TEN) >30" dbh	
ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understorey	O	SNAG, LARGE (SOUND) >30" dbh	
AMPHIBIANS - Frogs, Toads, etc.	O	LAYER, TREE >10% subcanopy trees	O	SNAG, MEDIUM (ROT TEN) 15-30" dbh	
AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh	
AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROT TEN) <15" dbh	
BANK - Cut, hollow or lake border		LITTER - Residue <1" indiam	I, O	SNAG, SMALL (SOUND) <15" dbh	
BARREN - Devoid of veg with veg area		LOG, LARGE (HOLLOW) >20" diam		SOIL, AERATED - Well drained	
BERRIES - Small, pulpy fruit	O	LOG, LARGE (ROTTEN) >20" diam		SOIL, FRIABLE - Easily crumbled	I, O
BIRDS, LARGE - > 450g (1lb)	O	LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 3-3" diam	
BIRDS, MED - 110-450g (4oz-1lb) 1b11111111	I, O	LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - >20% organic matter (wght)	
BIRDS, SMALL - < 110g (4oz)	I, O	LOG, MEDIUM (ROTTEN) 10-20" diam		SOIL, SALINE - Alkaline soils/veg	
BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam		SOIL, SANDY - Sand 0.5-2mm diam	I, O
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - >2270g (5lb)	I, O	SPRINGS-Freshwater springs, seeps	
BUILDINGS - Houses, sheds, etc		MAMMALS, MED - 110-500g (4oz-5lb)	I, O	SPRINGS, HOT	
BURROW - Excavation made by animal		MAMMALS, SMALL - < 110g (4oz)	I, O	SPRINGS, MINERAL	
CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%	O 7500' cum
CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT	O
CAVE - Natural chamber open to surface		NECTAR	O	STREAMS, PERMANENT	
CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag <3m (10') high	
CONES - From gymnosperm trees	O	NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag <3m (10') high	
DUFF - Non-structured decaying mater		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation	
DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOOLS	
EGGS - Any bird or reptile eggs		PACK STATION - with assoc human use		TRANSMISSION LINES	
FENCES - Any type	O	PONDS - Permanent, <2ha (5 acres) surf area		TREE LEAVES	O
FERN - Spore-forming plants with fronds		REPTILES	? <del>0</del> O	TREE, BROKEN LIVE TOP >11" dbh	
FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES	
FLOWERS	O	RIVERS - Perm. >6m (20') wide in dry season		TREE, W/ LOOSE BARK	O
FORBS - Herbaceous dicotyledons	I, O	ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface	
FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface	
FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface	O
GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface	O
GRAMINOIDS - Grass-like plants	I, O	SAP	O	TREES, FIR - <i>Abies sp</i> >11" dbh	
GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh	O
GRASS/WATER - Interface	O	SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh	O
INSECTS, FLYING - Insect eaten in air	I, O	SHRUB/GRASS - Interface	O	VERNAL POOLS	
INSECTS, TERRESTRIAL	I, O	SHRUB/WATER - Interface		WATER - Any source of free water	O
INVERTEBRATES	I, O	SHRUBS - Woody plants, not trees		WATER, FAST - Unsidal, >2ft/sec flows	
INVERTEBRATES, AQUATIC	O	SLASH, LARGE (ROTTEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc	
JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt, flows < .5ft/sec	
KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE- Interface	
LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF	

MINE - excavated for minerals

CWTR Class

- 1 Se
- 2 YS
- 3 M
- 4 D

- Canopy Closure
- S 10-25
  - P 25-40
  - M 40-60
  - D >60

Pl. #	Species	Age	% Dec.	Ht.	Hit/Miss
0	Elymus Glau.	M	2	27 in.	+
1	"	"	"	19 in.	+
2	"	"	"	23 in.	+
2	DIS. SPIC	"	"	13 in.	+
3	Ely Glau	"	"	16 in.	+
4	"	"	"	19 in.	+
5	"	"	"	25 in.	+
6	"	"	"	31 in.	+
7	"	"	"	23 in.	+
7	DIS. SPIC.	"	#1	11 in.	+
8	Ely Glau.	"	2	32 in.	+
8	DIS. SPIC.	"	"	20 in.	+
9	Ely Glau.	"	"	33 in.	+
10	"	"	"	30 in.	+
11	"	"	"	41 in.	+
12	"	"	"	32 in.	+
13	"	"	"	30 in.	+
13	DIS SPIC	"	#1	4 in.	+
14	Ely Glau.	"	#2	35 in.	+
15	"	"	"	32 in.	+
16	"	"	"	21 in.	+
17	"	"	"	18 in.	+
18	"	"	"	24 in.	+
19	"	"	"	22 in.	+
19	DIS SPIC	"	"	13 in.	+
20	Ely Glau.	"	"	25 in.	+
21	"	"	"	27 in.	+
22	"	"	"	26 in.	+
23	"	"	"	28 in.	+
23	DIS SPIC	"	"	12 in.	+
24	Ely Glau.	"	2	26 in.	+

Elymus glaucus - verify  
 Other spp. dried out mustard  
 Descurainia or Sisymbrium altissimum  
 0% cover = 100%

24	DIS SPIC	M	1	10 in.	+
25	Ely Glau.	M	2	24 in.	+
			1	7 in.	+

10/2/18 SA, DL PGS-47B

Gorman Creek

CWTR class

- 1 Se
- 2 YS
- ③ M
- 4 D

Canopy Closure  
 S 10-25  
 P 25-40  
 M 40-60  
 ① >60

H.#	Species	Age	% Dec.	Ht.	Hit/Miss
0	DIS SPIC	m	1	5 in.	+
1	EY GLAU.	m	2	15 in.	+
2					- (litter)
3	EY GLAU.	m	2	25 in.	+
4	Mustard	m	2	6 in.	+
5	EY GLAU.	m	2	25 in.	+
6	"	m	"	24 in.	+
7	"	"	"	22 in.	+
8	"	"	"	24 in.	+
9	"	"	"	25 in.	+
10	"	"	"	27 in.	+
11	"	"	"	29 in.	+
12	"	"	"	30 in.	+
13	"	"	"	29 in.	+
14	"	"	"	24 in.	+
15	"	"	"	24 in.	+
16	"	"	"	25 in.	+
<del>16</del> 16	DIS SPIC	m	1	12 in.	+
<del>17</del> 17	"	"	"	10 in.	+
<del>17</del> 17	EY GLAU.	"	2	26 in.	+
<del>18</del> 18	"	"	"	27 in.	+
<del>19</del> 19	"	"	"	26 in.	+
<del>20</del> 20	"	"	"	31 in.	+
<del>21</del> 21	"	"	"	22 in.	+
<del>22</del> 22	EY GLAU.	"	"	27 in.	+
<del>22</del> 22	DIS SPIC	"	1	6 in.	+
23 <del>24</del>	EY GLAU.	"	2	24 in.	+
<del>23</del> 23	DIS SPIC	"	1	11 in.	

25/26 = 96%

Other spp

24	DIS SPIC	m	1	15 in.	+
24	EY GLAU.	m	2	29 in.	+
25	DIS SPIC	m	1	15 in.	+
25	EY GLAU.	m	2	20 in.	+

Checklist:

checklist only  
plots inaccessible

PGS 48

Barren 0

Lg, Md, Sm Birds I, 0 (foraging for lg.)

Burrow I, 0

Fences 0

Flowers I, 0

Forbs I, 0

Grasses I, 0

Insects - flying I, 0

" - terres. I, 0

Inverts. I, 0

Layer, Herb I, 0

Layer, Shrub I, 0

Layer, Tree 0 (> 200' away)

Litter I, 0

Mammals - All I, 0

Nectar I, 0

Reptiles I, 0 (assumed, none sighted, no sign)

Rock outcrop 0 (> 500' away on slopes)

Shrub/Grass I, 0

Shrubs I, 0

Snag, med sound? > 200' away (0) Dead Salix

Soil, friable I, 0

" , sandy I, 0

Steep Slopes 0 > 500' away

Pwr lines (not transmission) 0

Tree leaves 0

Tree, broken live top > 11" DBH 0 (same as snag)

Trees w/ loose bark 0

Tree/Grass 0

Trees, Hardwood > 11" DBH 0

Trees, Pine 0 (well upslope >> 500' away)



Checklist on back

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Private Property ✓

Date: 10-2-18 Sample Crew: SA, DL Plot Number: PGS 48 Location: Quail Lake

Visual estimate before sampling; CWHR habitat type: PGS? AGS

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1						26					
2						27					
3						28					
4						29					
5						30					
6						31					
7						32					
8						33					
9						34					
10						35					
11						36					
12						37					
13						38					
14						39					
15						40					
16						41					
17						42					
18						43					
19						44					
20						45					
21						46					
22						47					
23						48					
24						49					
25						50					

VEGETATION COVER MEASUREMENT

NNG Cover

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

Bare Ground cover 3-5%.

Raven

ERL NAW 25-30% cover  
3-5% crf  
Brassicat, BRO TEC,  
Stephanomenia 2-3% crf

what% crf needed for SGB?

PJN 49

CWHR HABITAT ELEMENT CHECK LIST

inaccessible  
private  
over fence binocular

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

I	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh
O	ALGAE - Any algae other than kelp	O	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.	I	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROTTEN) <15" dbh
O	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" in diam	I	SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg within veg area		LOG, LARGE (HOLLOW) >20" diam	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 3-3" diam
I	BIRDS, MED - 110-450g (4oz-1lb) (b1111111)	I	LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - > 20% organic matter (wght)
I	BIRDS, SMALL - < 110g (4oz)	I	LOG, MEDIUM (ROTTEN) 10-20" diam		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam	I	SOIL, SANDY - Sand .05-2mm diam
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc	I	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	O	STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	O	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
O	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc human use	I	TRANSMISSION LINES
O	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
O	FISH		RIPARIAN INCLUSION - Riparian veg (small)	I	TREE, W/ CAVITIES
I	FLOWERS	O	RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	O	ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit	I	ROOTS	I	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc		SALT PONDS - Saline ponds	I	TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants	O	SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	I	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface	I	TREES, PINE - <i>Pinus sp</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface	O	WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsited, >2ft/sec flows
O	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam	O	WATER, SLOW - Some silt; flows < 5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

Canal

veg notes →

>30% scrubby Quercus  
 <10% Juniperus  
 <10% Arctostaphylos  
 good amount sagebrush  
 all life stages

#change to MCH?

10/2/18 SA, DL

PJN-50

Checklist

- Acom  $\pm, 0$  Berries  $I, 0$
- Birds - All sizes  $I, 0$
- Burns - lots  $I, 0$
- Cones  $0$
- Flowers  $I, 0$
- Forbs  $I, 0$
- Grasses  $I, 0$
- Insects - flying  $I, 0$
- " terres.  $I, 0$  Galls on Quercus
- Inverts  $I, 0$
- Layer, Herb  $I, 0$
- Layer, Shrub  $I, 0$
- Layer, Tree  $I, 0$
- Litter  $I, 0$
- Mammals - lg  $I, 0$  Deer Scot
- " med "
- " sm. "
- Nectar  $I, 0$
- Reptiles  $I, 0$  (suitable)
- Shrub/Grass  $I, 0$
- Shrubs  $I, 0$
- Soils - friable  $I, 0$
- " sandy  $I, 0$
- Steep slopes  $0$
- Tree leaves  $I, 0$
- Tree loose bark  $I, 0$
- Tree / grass  $I, 0$
- Tree (shrub)  $\pm, 0$
- Trees, hardwood  $0$
- Trees, pine  $0$

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

PJN-50A  
checklist on back

Date 10-2-19 Sample Crew SA, DL

Plot Number PJN-50A Location Gorman Creek

Visual estimate at plot center before sampling CWHR habitat type, size class and canopy closure class  
Structure Even-structure even, or Uneven-structure \_\_\_\_\_

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	<u>P</u>	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
<u>4</u>	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	<u>QUE sp.</u>	0	32 in.	4 ft	10 ft	SW	26						
2	<u>JUNCAL</u>	0	24 in.	1 ft	10.5 ft	SE	27						
3							28						
4							29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misser (0) measure ↓ through a sighting tube at 6.2 ft intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft interval.

Percent Cover =  $(\frac{3 \text{ (no hits)}}{25}) * 100$



Deer scat  
Need to determine CWHR veg type  
Collected acorn need to ID species of oak → QUE dumosa x berberidifol.  
HES WHI Ephedra-vindis?  
Other spp: ERI NAU, BRO TEC, ERI FABC., ART TRI, Rtu AZO

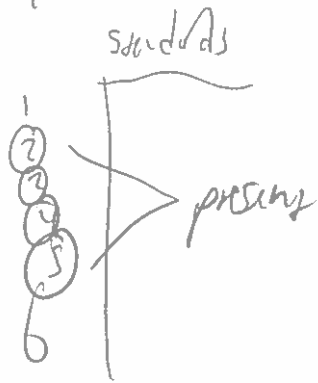
10/2/18

IC/DL

Plot ~~JPN 54C~~  
PJV 50C

WHAT IS THIS?

NOTE - no PJN 50  
only 2 plots  
due to inaccessibility



#	Species	Over/Under	DBH	C/NW	Ht	1/4
1	Quercus <del>bov?</del>	over	14+12+16+16	20'	20'	NW
2	" "	over	6+4+4+3	10'	15'	NW
3	Juncal	both	10 DBHs of 1"	6"	8'	SE
4	Juncal	both	2 DBHs of 2" 6 DBHs of 1"	3'	7'	SW
5	Que <del>bov?</del>	over	16"	20'	15'	SW

Comp/Low Measure

N-S → all open

~~W ± ± ± ± 0 0 0 0 0 0 0~~

16% cover

Add p. - erinau  
ca. buckbeys  
mitch weed  
s. cernua

Trees & shrubs are patchy, not true juniper woodland, more oakly

QUE = Quercus dumosa x berbericifolia

CWHR HABITAT ELEMENT CHECK LIST

change

PJWSI

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

10	ACORNS - Fruit of an oak		LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROT TEN) >30" dbh
	ALGAE - Any algae other than kelp	10	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc	10	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROT TEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	0	LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROT TEN) <15" dbh
	BANK - Cut, hollow or lake border	10	LITTER - Residue <1" in diam		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg within veg area		LOG, LARGE (HOLLOW) >20" diam	10	SOIL, AERATED - Well drained
	BERRIES - Small pulpy fruit		LOG, LARGE (ROT TEN) >20" diam	10	SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)	10	LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 3-3" diam
10	BIRDS, MED - 110-450g (4oz-1lb) lb11111111		LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - >20% organic matter (wght)
10	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROT TEN) 10-20" diam		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas	10	LOG, MEDIUM (SOUND) 10-20" diam	10	SOIL, SANDY - Sand 0.5-2mm diam
10	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc	10	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	10	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	10	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROT TEN)-snag <3m (10') high
10	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag <3m (10') high
10	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill	10	NUTS - Hard-shelled, dry fruit		TIDEPOOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
0	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	10	TREE LEAVES
	FERN - Spore-forming plants with fronds	10	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg (small)	0	TREE, W/ CAVITIES
10	FLOWERS		RIVERS - Perm. >6m (20') wide in dry season	10	TREE, W/ LOOSE BARK
0	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc		SALT PONDS - Saline ponds	10	TREE/SHRUB - Interface
0	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
0	GRAMINOIDS - Grass-like plants	10	SAP		TREES, FIR - <i>Abies sp</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	10	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp</i> > 11" dbh
10	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
10	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
10	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unsited, >2ft/sec flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROT TEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt, flows < 5ft/sec
	KELP - Large, coarse, brown algae	10	SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)	10	SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals



CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET

Date: 10/3/18 Sample Crew: IC/OL

Plot Number: PJNS1A + PJNS1B Location: LOS ALAMOS CG

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class BOW MCH  
Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: \_\_\_\_\_

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

PJNS1A PJNS1B (Size 2, 3, 4, 5)

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	Junca	Both	6.8+6.3+6	10'	15	NW	26.1	Quedou <sup>c</sup>	Both	4.2.3.2	6	17	SW
2	Quedou <sup>3</sup>	Over	8.8+10.10	4'	26	NE	27.2		Both	5.7.	10	15	SW
3	Quedou <sup>2</sup>	Over	6.8.4.4.8	10'	20	NE	28.3		Both	5.2.2.3	11.0	20	SW
4	Quedou <sup>2</sup>	Both	3.4.6.6	10	18	SW	29.4		Both	2.2.2.2	20	28	SW
5	Quedou <sup>c</sup>	Both	2.4.4.5.5.3.3	16	23	SE	30.4	Quedou	Both	2.2.2.2.1	3	12	SE
6							31.5	Junca	Both	4.3.2.2	3	28	
7							32.6	Quedou	Both	2.2.2.1	5	25	SE
8							33						
9							34						
10							35						
11							36						
12							37						
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20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$ .

S1A N-S: 0 0 0 0 0 0 0 0 0 0 0 0 0  
S1B 0 0 0 0 0 0 0 0 0 0 0 0 0  
(Center stake)

E-W: + + + + + 0 + 0 0 + 0 0  
0 0 0 + 0 0 + + + + +

13/25 =  
13/25 =!

Dead oak w/ mistletoe; RRS on margin

\* QUEDOU = QUEBER

# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date 10/3/18 Sample Crew DLIC

PJN JPN 51 C  
Plot Number 51C Location Los Alamos CG

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class MCH  
Structure: Even-structure \_\_\_\_\_ or Uneven-structure: \_\_\_\_\_

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	Quercus	Bush	8.3	20	18	SE	26						
2	Quercus	Bush	6.8.3	23	23	NE	27						
3							28						
4							29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

### OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$

N-S: 0 0 0 0 0 0 0 0 0 0 0 0 0

E-W: 1 + 1 1 + 0 0 0 0 0 0

(Center stake)

5 Loph. toon  
Erie non

QUEDOU = QUERER

dense oak thicket, east half of plot w/ large lobotia just outside plot, + oak wash.  
Also note no junipers at all at this location

Shc 52 = MHC

CWHR HABITAT ELEMENT CHECKLIST



Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

I	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb. understory	I	SNAG, LARGE (ROTTEN) >30" dbh
O	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory	I	SNAG, LARGE, (SOUND) >30" dbh
I	AMPHIBIANS - Frogs, Toads, etc.	I	LAYER, TREE >10% subcanopy trees	I	SNAG, MEDIUM (ROTTEN) 15-30" dbh
I	AQUATICS, EMERGENT	I	LICHENS	I	SNAG, MEDIUM (SOUND) 15-30" dbh
I	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.	I	SNAG, SMALL (ROTTEN) <15" dbh
I	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam.	I	SNAG, SMALL (SOUND) <15" dbh
I	BARREN - Devoid of veg. within veg. area	I	LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
I	BERRIES - Small, pulpy fruit	I	LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.	I	SOIL, GRAVELLY - Gravel 8-3" diam
I	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111	I	LOG, MEDIUM (HOLLOW) 10-20" diam	I	SOIL, ORGANIC - >20% organic matter (wght)
I	BIRDS, SMALL - < 110g (4oz)	I	LOG, MEDIUM (ROTTEN) 10-20" diam.	I	SOIL, SALINE - Alkaline soils/veg.
I	BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam.	I	SOIL, SANDY - Sand .05-2mm diam
I	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)	I	SPRINGS-Freshwater springs, seeps
I	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)	I	SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)	I	SPRINGS, MINERAL
I	CAMPGROUND	I	MOSS - Bryophytes	I	STEEP SLOPE-Slopes > 50%
I	CARRION - Any dead animal matter	I	MUD FLATS- contiguous with water body	I	STREAMS, INTERMITTENT
O	CAVE - Natural chamber open to surface	I	NECTAR	I	STREAMS, PERMANENT
I	CLIFF - Steep, vertical overhanging face	I	NEST BOX - Constructed nesting cavity	I	STUMP (ROTTEN)-snag<3m (10') high
I	CONES - From gymnosperm trees	I	NEST PLATFORM - Const. large platform	I	STUMP (SOUND)-snag<3m (10') high
I	DUFF - Non-structured decaying matter	I	NEST ISLAND - Man-made nesting island	I	TALUS-Slope from rock accumulation
I	DUMP - Sanitary landfill	I	NUTS - Hard-shelled, dry fruit.	I	TIDEPOLS
I	EGGS - Any bird or reptile eggs	I	PACK STATION - with assoc. human use	I	TRANSMISSION LINES
I	FENCES - Any type	I	PONDS - Permanent, <2ha (5 acres) surf. area	I	TREE LEAVES
I	FERN - Spore-forming plants with fronds	I	REPTILES	I	TREE, BROKEN LIVE TOP >11" dbh
I	FISH	I	RIPARIAN INCLUSION - Riparian veg. (small)	I	TREE, W/ CAVITIES
I	FLOWERS	I	RIVERS - Perm., >6m (20') wide in dry season	I	TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.	I	TREE/AGRICULTURE - Interface
I	FRUITS - Pulpy fruit	I	ROOTS	I	TREE/GRASS - Interface
I	FUNGI - Mushrooms, molds, etc.	I	SALT PONDS - Saline ponds	I	TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed	I	SAND DUNE	I	TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants	I	SAP	I	TREES, FIR - <i>Abies sp.</i> >11" dbh
I	GRASS/AGRICULTURE - Interface	I	SEEDS - Other than listed above	I	TREES, HARDWOOD - >11" dbh
I	GRASS/WATER - Interface	I	SHRUB/AGRICULTURE- Interface	I	TREES, PINE - <i>Pinus sp.</i> >11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface	I	VERNAL POOLS
I	INSECTS, TERRESTRIAL	I	SHRUB/WATER - Interface	I	WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees	I	WATER, FAST - Unsilted, >2ft/sec. flows
I	INVERTEBRATES, AQUATIC	I	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	I	WATER, CREATED BODY - Guzzler, well, etc.
I	JETTY - Rock/concrete extending into water	I	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	I	WATER, SLOW - Some silt; flows < .5ft/sec.
I	KELP - Large, coarse, brown algae	I	SLASH, LARGE (SOUND) Residue 3-10" diam.	I	WATER/AGRICULTURE- Interface
I	LAKES - Permanent > 2ha (5 acres)	I	SLASH, SMALL Residue 1-3" diameter	I	WHARF

MINE - excavated for minerals

al surroundings = oak 25%  
Douglas fir 10%

at riparian edge  
location chosen for accessibility

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET

Date: 10/4/10 Sample Crew: LP, AL Plot Number: SMCS2A Location: Buck Creek

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class MHC  
Structure: Even-structure: or Uneven-structure: Uneven-structure (circled)

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<u>Uneven-structure</u> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g., 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

similar to PIRL T1 however less dense understory, larger oaks

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	PSEMEN	over	24	18	50	NW	26						
2	QUECHR	over	18	25	45	SE	27						
3	PSEMEN	over	25			SE	28						
4	PLARAC	under	5+4+3			SE	29						
5	QUECHR	over	5	8	20	SW	30						
6	PLARAC	under	5	8	20	SW	31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft interval.

Percent Cover = (no. hits/25) \* 100

N-S: X X X 0 0 0 X X X X X

E-W: 0 0 X X 0 0 0 0 0 X X X

15/25 = 60%

when hit phainopepla

Toxicodendron diversilobum  
choke cherry? → Prunus ilicifolia  
Bromus diandrus  
Quercus chrysolepis

QUE → see sample



### CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

DL IC

10/3/18

URB-53

10	ACORNS - Fruit of an oak	0	LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	0	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.	10	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	0	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border		LITTER - Residue <1" in diam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.	0	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	0	SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.	10	SOIL, GRAVELLY - Gravel 8-3" diam.
10	BIRDS, MED. - 110-450g (4oz-1lb) (b1111111)		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
10	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	0	SOIL, SANDY - Sand 0.5-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
10	BUILDINGS - Houses, sheds, etc.	10	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	10	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	0	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag<3m (10') high
10	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag<3m (10') high
10	DUFF - Non-structured decaying mater		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill	0	NUTS - Hard-shelled, dry fruit.		TIDEPOOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
10	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area	10	TREE LEAVES
	FERN - Spore-forming plants with fronds	10	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	10	TREE, W/ CAVITIES
0	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	10	TREE, W/ LOOSE BARK
0	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
0	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
0	GRAMINOIDS - Grass-like plants	10	SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	10	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface	10	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
10	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
10	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
10	INVERTEBRATES	0	SHRUBS - Woody plants, not trees		WATER, FAST - Unsited; >2ft/sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY- Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF



MINE - excavated for mine rails

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

Date: 10/3/18 Sample Crew: ICDC Plot Number: URB 53 Location: Los Alamos Fire Station

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class. URB  
Structure: Even-structure: \_\_\_\_\_, or Uneven-structure:

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	<u>S</u>	Sparse Cover	10.0-24.9%
<u>2</u>	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
<u>3</u>	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
<u>4</u>	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	unk-orn	over	5	8	20	SE	26						
2	pin halsp	over	8	10	40	SE	27						
3	pin halsp	over	11	25	40	SE	28						
4	gra x sp	over	3.2	15	20	SW	29						
5	pin sp	over	5	5	23	SW	30						
6	unk-orn	over	4.3	15	23	SW	31						
7	pin halsp	over	7	5	40	SW	32						
8	pin halsp	over	7	3	38	SW	33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$   
 N-S: 0 0 0 0 0 0 0 0 0 + + + + E-W: 0 0 0 0 0 0 0 0 + + + +  
 (Center stake)  
 8/25 = 32%



URB 54

## CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak		LAYER, HERBACEOUS >10% herb. understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understory		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border		LITTER - Residue <1" indiam.		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb)  b		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
I	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	O	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
O	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
I	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
O	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	I	TREE/SHRUB - Interface
	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air		SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL	O	SHRUB/WATER - Interface	O	WATER - Any source of free water
I	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unsalted; >2ft/sec. flows
O	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.	O	WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
O	LAKES - Permanent >2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

Only datasheet

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/3/18 Sample Crew: LP Plot Number: URB54A Location: Pyramid Lake

Visual estimate before sampling: CWHR habitat type: AL  
URB

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above julia)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0"	S	Sparse cover	10 0-24 9% Shrub; 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1 5- 19 9" (PO) 1 5-3 9" (JT)	2 0-9 9"	P	Open cover	25 0-39 9% Shrub; 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0-19 9"	M	Mod. cover	40 0-59 9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0"	D	Dense cover	≥ 60 0% all types

URB

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	<del>ornamental</del>	same as		0	+	20	ornamental M	3		12	+
2					+	27	juniper				
3					+	28					
4					-	29					
5					-	30					
6					-	31					
7					-	32					
8					-	33					
9					-	34					
10					-	35					
11					-	36					
12					-	37					
13					-	38					
14					-	39					
15					-	40					
16					-	41					
17					-	42					
18					-	43					
19					-	44					
20					-	45					
21					-	46					
22					-	47					
23					-	48					
24					-	49					
25					-	50					

Olive canopy

VEGETATION COVER MEASUREMENT

ornamentals:

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$   $\frac{4}{25} = 16\%$

olive  
rosemary  
juniper grown cover

Pyramid Lake parking lot

NOV55

= COW

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

I	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb understory		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	I	LAYER, SHRUB >10% shrub understory		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I	LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	I	LITTER - Residue <1" indiam.	I	SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area	I	LOG, LARGE (HOLLOW) >20" diam.	I	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.	I	SOIL, FRIABLE - Easily crumbled
I	BIRDS, LARGE - > 450g (1lb)	I	LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 8-3" diam.
I	BIRDS, MED. - 110-450g (4oz-1lb) (b1111111)		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
I	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas	I	LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	I	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	I	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes	I	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
I	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	I	TREE LEAVES
	FERN - Spore-forming plants with fronds	I	REPTILES	I	TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	I	TREE, W/ CAVITIES
I	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I	FORBS - Herbaceous dicotyledons	I	ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit	I	ROOTS	I	TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	I	TREE/SHRUB - Interface
I	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	I	TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I	INSECTS, TERRESTRIAL	I	SHRUB/WATER - Interface		WATER - Any source of free water
I	INVERTEBRATES	I	SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft <sup>3</sup> /sec. flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft <sup>3</sup> /sec.
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF



MINE - excavated for minerals

very small oak → other areas mapped as VDW are Tamarisk patch

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM

only one datasheet/plot fits

WOODED HABITAT SAMPLING DATASHEET

Date 10/4/18 Sample Crew LP, AL Plot Number: VOW55A Location: Templin Highway ca. of I-5

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: live oak  
 Structure: Even-structure: or Uneven-structure: X

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	QUEAGR	over	12+15+11	28	35	SE	26						
2	QUEAGR	over	35	22	25	NE	27						
3							28						
4							29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
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18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100

N-S: 0 0 0 0 X X X X X X X X E-W: X X X X X X 0 0 0 0 0 0

15/25 = 60

QUE → live oak → see sample (hairy armpits)  
 Baccharis piquarialis  
 Eriogonum fasciculatum  
 Tamarisk in drainage  
 Quercus agrifolia  
 Rhus?  
 Sage Salvia  
 Bromus diandrus

10/3/18 SA, DL

Vow 56

CWHR HABITAT ELEMENT CHECK LIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	I, O	LAYER, HERBACEOUS >10% herb. understory	I, O	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp		LAYER, SHRUB >10% shrub understory	O	SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.		LAYER, TREE >10% subcanopy trees	I, O	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT		LICHENS	I, O	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.		SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border		LITTER - Residue <1" in diam.	I, O	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
BIRDS, LARGE - > 450g (1lb)	I, O	LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel #-3" diam.
BIRDS, MED. - 110-450g (4oz-1lb)	I, O	LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - >20% organic matter (wght.)
BIRDS, SMALL - < 110g (4oz)	I, O	LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.		SOIL, SANDY - Sand .05-2mm diam.
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - > 2270g (5lb)	I, O	SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.		MAMMALS, MED. - 110-2270g (4oz-5lb)	I, O	SPRINGS, HOT
BURROW - Excavation made by animal	I, O	MAMMALS, SMALL - < 110g (4oz)	I, O	SPRINGS, MINERAL
CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter		MUD FLATS - contiguous with water body		STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface		NECTAR	I, O	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN) - snag <3m (10') high
CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND) - snag <3m (10') high
DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS - Slope from rock accumulation
DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
FENCES - Any type	O	PONDS - Permanent, <2ha (5 acres) surf area		TREE LEAVES
FERN - Spore-forming plants with fronds		REPTILES (suitable)	I, O	TREE, BROKEN LIVE TOP >11" dbh
FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
FLOWERS	I, O	RIVERS - Perm., >6m (20') wide in dry season		TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.		TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
GRAMINOIDS - Grass-like plants	I, O	SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air	I, O	SHRUB/GRASS - Interface		VERNAL POOLS
INSECTS, TERRESTRIAL	I, O	SHRUB/WATER - Interface		WATER - Any source of free water
INVERTEBRATES	I, O	SHRUBS - Woody plants, not trees	I, O	WATER, FAST - Unsilted, >2ft/sec flows
INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.		WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec.
KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

Date 10/3/18 Sample Crew SA, DL Plot Number VOW 56A Location Goman Creek

Visual estimate at plot center before sampling. CWHR habitat type, size class and canopy closure class VOW  
Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: uneven

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1 0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15 0'	1.0"-5.9"	<b>P</b>	Open cover	25.0-39.9%
<b>3</b>	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
<b>4</b>	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
<b>5</b>	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	QUE.SP.	0	13.7 in	15 ft	40 ft	NE	26						
2	QUE.SP.	0	(9.6+9.5+14.1) in.				27						
3	QUE.SP.	0	(15.3+11.5)				28						
	QUE.SP.	0	(13.3+7.1)				29						
5	QUE.SP.	0	11.8 in	3 ft	35 ft	SE	30						
6	QUE.SP.	U	7.5 in				31						
7	QUE.SP.	0	12.6 in				32						
8	QUE.SP.	0	13.6 in				33						
9	QUE.SP.	0	11.1 in				34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.  
Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$

N-S +++++ + + + + + + + + + + + + + + E-W +++++ + + + + + + + + + + + + + +  
(Center stake)

No trees NW or SW 37.5, 43.5, 49.5, 55.5, 61.5  
67.5  
73.5

stem 4: peeling bark, bare holes

Other spp. BRO DIA  
BRO TEC  
ERI NAU  
ERI PIN

QUERCUS SP. - confirm lobata  
Dendrobium

31.5, 25.5, 19.5, 13.5,





## CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10/3/18 Sample Crew: SAC Plot Number: 506 Location: Gorman Creek

Visual estimate at plot center before sampling. CWHR habitat type, size class and canopy closure class VOW  
Structure Even-structure: Even or Uneven-structure: \_\_\_\_\_

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	<u>M</u>	Mod. Cover	40.0-59.9%
<u>4</u>	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
<u>5</u>	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	QUELOB	O	36 in.	30 FT.	50 FT.	SE	26						
2	QUELOB	U	9.2 in.			NE	27						
3	QUELOB	O	14.7 in.	10 FT.	45 FT.	NE	28						
4	QUELOB	U	10 in.				29						
5	QUELOB	O	13.2+2.7 in.	18 FT.	48 FT.	NW	30						
6	QUELOB	O	14.2 in.				31						
7	QUELOB	O	9.1 in.				32						
8	QUELOB	U	11.4 in.				33						
9	QUELOB	O	19.0 in.				34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**  
Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $\frac{22 \text{ (no hits)} / 25}{1} \times 100 = 88\%$   
 N-S: 0 0 0 0 0 0 0 0 0 0 0 0 0 E-W: 0 0 0 0 0 0 0 0 0 0 0 0  
 (Center stake)

Deer scat  
 Woodpecker holes in valley oak trees  
 Bro DIA  
 Isomenis sp. (P)  
 (Pentoma)

checklist w/ WTM60  
 original VRI point in FEW → collected data here instead

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
 WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP, AL Plot Number: VRI57A Location: Elderberry Forebay

Visual estimate at plot center before sampling. CWHR habitat type, size class and canopy closure class: ~~VRI~~ DRI  
 Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: ~~X~~

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	≥60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

with ←

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)...	Ht (ft)	pt-ctr 1/4 quad
1	POPPRE	over	6	18	25	NW	26						
2	POPPRE	over	11	22	27	SW	27						
3	POPPRE	over	8+10+6			SW	28						
4	POPPRE	over	7			SW	29						
5	POPPRE	over	8+8			SW	30						
6	POPPRE	over	10	16	30	SE	31						
7	POPPRE	over	20			SE	32						
8	POPPRE	over	12			SE	33						
9	POPPRE	over	10+12+4+6			NE	34						
10	POPPRE	over	6	25	30	NE	35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100.

N-S 0 0 0 + + + + + + + + + E-W 0 0 + + + + + + + 0 + 0

(Center stake)

18/25 = ?

black walnut saplings  
 Eriodictyon  
 Baccharis sal.

Stephanomeria  
 BROMAD  
 tamarix

deer kill  
 crow

edge of wash

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP, AL Plot Number: VR157B Location: Elderberry Forebay

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: DRI  
Structure: Even-structure: X or Uneven-structure: open wash w/ minimal canopy cover

with

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<u>Uneven-structure</u> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory or understory trees depending on relative crown position, while suppressed trees should always be understory trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	POPPRE	over	5	10	15	NW	26						
2	POPPRE	8+6 → over		20	30	SW	27						
3							28						
4	NO MORE TREES							29					
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$ .

N-S: 0 \* 0 0 0 0 0 0 0 0 0 0 0 0 0

(Center stake)

E-W: 0 0 0 0 0 0 0 + + + + +

6/25 = 24%

eastern quadrants = wash

tamarix  
mud flat

smilo  
salmel?



CWHR HABITAT ELEMENT CHECKLIST

VRI 58 ✓

Indicate which elements are present inside (I) and or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	10	LAYER, HERBACEOUS >10% herb understorey		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	10	LAYER, SHRUB >10% shrub understorey		SNAG, LARGE, (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc	10	LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS	1	SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	10	LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROTTEN) <15" dbh
10	BANK - Cut, hollow or lake border	10	LITTER - Residue <1" in diam		SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg within veg area		LOG, LARGE (HOLLOW) >20" diam	10	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit	1	LOG, LARGE (ROTTEN) >20" diam	10	SOIL, FRIABLE - Easily crumbled
	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 3-3" diam
10	BIRDS, MED - 110-450g (4oz-1lb) (b1111111)		LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - >20% organic matter (wght)
10	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas	10	LOG, MEDIUM (SOUND) 10-20" diam	10	SOIL, SANDY - Sand 0.5-2mm diam
10	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	10	MAMMALS, LARGE - > 2270g (5lb)		SPRINGS-Freshwater springs, seeps
10	BUILDINGS - Houses, sheds, etc	10	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
10	BURROW - Excavation made by animal	10	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
0	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface	10	NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag <3m (10') high
10	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag <3m (10') high
10	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use	0	TRANSMISSION LINES
0	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area	10	TREE LEAVES
	FERN - Spore-forming plants with fronds	10	REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg (small)	10	TREE, W/ CAVITIES
10	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	10	TREE, W/ LOOSE BARK
10	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	10	TREE/SHRUB - Interface
10	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
10	GRAMINOIDS - Grass-like plants	10	SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface	10	SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
0	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
10	INSECTS, FLYING - Insect eaten in air	0	SHRUB/GRASS - Interface		VERNAL POOLS
10	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface		WATER - Any source of free water
10	INVERTEBRATES	10	SHRUBS - Woody plants, not trees		WATER, FAST - Unstated, >2ft/sec flows
	INVERTEBRATES, AQUATIC	10	SLASH, LARGE (ROTTEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc
	JETTY - Rock/concrete extending into water	10	SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt, flows < 5ft/sec
	KELP - Large, coarse, brown algae	10	SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE - Interface
	LAKES - Permanent > 2ha (5 acres)	10	SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for minerals



VR158a

10/2/18

size class 5

open cover even cover

SE POPFRE 45 ft height over dbh  
 25 + 44  
 crown width -  
 20

mostly ARTTRI understory

other species see other side

N-S + 0 + + + + + + + 0 0 0 0

E-W + + + + + + + 0 0 0 0

$$15/25 = 60\%$$

# CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/19 Sample Crew: IC DL Plot Number: VR158-B Location: Los Alamos CG

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: VR1  
Structure: Even-structure: 0, or Uneven-structure: \_\_\_\_\_

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	<b>M</b>	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	<b>Uneven-structure</b> = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understory trees depending on relative crown position, while suppressed trees should always be understory trees.

PGS 47C

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in) AGE	Crown diam (ft) DECADEME	Ht (ft)	pt-ctr 1/4 quad
1	poplar	over	23" 20"	60'	50	SW	26	dissoi		3	1	8"	
2	poplar	over	22" 14 10	40'	40	NE	27						
3	poplar	over	40"	35'	45	NE	28						
4							29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 18 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{20 \text{ (no. hits)}}{25}) * 100 = 80\%$

N-S: + + + + + + + + + + + + + + + + + 0

E-W: + + + + + + + + + 0 0 0 0

(Center stake)

wooded needs present  
addp.: peridome arborea, elytry, hines willow  
borderless wild rye

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
WOODED HABITAT SAMPLING DATASHEET**

see other site for (A)

Date: 10/2/18 Sample Crew: LP, AL Plot Number: VR158C Location: Los Alamos CG  
 Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: VRI  
 Structure: Even-structure: X or Uneven-structure: \_\_\_\_\_

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	S	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
3	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

overhangs sw quad  
large willow just outside plot

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	POPPAE	over	47	30	45	NE	26						
2	POPPAE	over	36	25	45	SE	27						
3							28						
4							29						
5							30						
6							31						
7							32						
8							33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

**OVERSTORY CANOPY COVER MEASUREMENT**

lots of woody debris

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover =  $(\frac{\text{no. hits}}{25}) * 100$   
 N-S: 0 0 0 0 + + + + + 0 0  
 E-W: + + + + + + + + 0 0 0 + + madn

- Salix goodingii (Center stake) Sage Salvia Malifera 16/25 = 64% Bromus diandrus  
 Populus fremontii Artemisia tridentata Erica meria  
 Sambucus Artemisia - see other riparian Navisec  
 Lonicera Elymus trif Salix exigua

WTM 59 ✓

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input checked="" type="checkbox"/>	LAYER, HERBACEOUS >10% herb. understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input checked="" type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE, (SOUND) >30" dbh
<input checked="" type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED		LITHIC - Rock scatter <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
<input checked="" type="checkbox"/>	BANK - Cut, hollow or lake border	<input checked="" type="checkbox"/>	LITTER - Residue <1" indium.	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
	BARREN - Devoid of veg. within veg. area		LOG, LARGE (HOLLOW) >20" diam.		SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam.		SOIL, FRIABLE - Easily crumbled
<input checked="" type="checkbox"/>	BIRDS, LARGE - > 450g (1lb)		LOG, LARGE (SOUND) >20" diam.		SOIL, GRAVELLY - Gravel 1/8-3" diam.
<input checked="" type="checkbox"/>	BIRDS, MED. - 110-450g (4oz-1lb) lb11111111		LOG, MEDIUM (HOLLOW) 10-20" diam.		SOIL, ORGANIC - > 20% organic matter (wght.)
<input checked="" type="checkbox"/>	BIRDS, SMALL - < 110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam.		SOIL, SALINE - Alkaline soils/veg.
<input checked="" type="checkbox"/>	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam.	<input checked="" type="checkbox"/>	SOIL, SANDY - Sand .05-2mm diam.
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input checked="" type="checkbox"/>	MAMMALS, LARGE - > 2270g (5lb.)		SPRINGS - Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc.	<input checked="" type="checkbox"/>	MAMMALS, MED. - 110-2270g (4oz-5lb)		SPRINGS, HOT
	BURROW - Excavation made by animal	<input checked="" type="checkbox"/>	MAMMALS, SMALL - < 110g (4oz)		SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input type="checkbox"/>	STEEP SLOPE - Slopes > 50%
	CARRION - Any dead animal matter	<input checked="" type="checkbox"/>	MUD FLATS - contiguous with water body	<input checked="" type="checkbox"/>	STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN) - snag <3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND) - snag <3m (10') high
	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS - Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit.		TIDEPOLS
<input checked="" type="checkbox"/>	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf. area	<input type="checkbox"/>	TREE LEAVES
	FERN - Spore-forming plants with fronds	<input checked="" type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input checked="" type="checkbox"/>	FISH		RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input checked="" type="checkbox"/>	FLOWERS		RIVERS - Perm., >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input checked="" type="checkbox"/>	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam.	<input checked="" type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS		TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE/SHRUB - Interface
<input checked="" type="checkbox"/>	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
<input checked="" type="checkbox"/>	GRAMINOIDS - Grass-like plants		SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input checked="" type="checkbox"/>	GRASS/WATER - Interface		SHRUB/AGRICULTURE - Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input checked="" type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB/GRASS - Interface		VERNAL POOLS
<input checked="" type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB/WATER - Interface	<input checked="" type="checkbox"/>	WATER - Any source of free water
<input checked="" type="checkbox"/>	INVERTEBRATES		SHRUBS - Woody plants, not trees		WATER, FAST - Unsilted, >2ft/sec flows
<input checked="" type="checkbox"/>	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam.	<input checked="" type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam.		WATER, SLOW - Some silt; flows < .5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam.		WATER/AGRICULTURE - Interface
<input checked="" type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF



MINE - excavated for minerals

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/5/2018 Sample Crew: LP, AL, DL Plot Number: WTM 59A Location: Piru Creek

Visual estimate before sampling; CWHR habitat type: Wet meadow (WTM)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above budae)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	< 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	> 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

0 cypha 3 2 26 +

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent Herb Herb	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	cypha	3	2	31	+	26					
2	g	3	2	25	+	27					
3	g	3	2	20	+	28					
4					-	29					
5					-	30					
6	cypha	3	7	22	-	31					
7	cypha	3	2	22	+	32					
8	cypha	3	7	27	+	33					
9	eleocharis	3	1	7	+	34					
10	g	3	2	23	+	35					
11	cypha	3	2	25	+	36					
12	cypha	3	2	25	+	37					
13	g	3	2	17	+	38					
14	g	3	2	16	+	39					
15	g2	1	1	1	+	40					
16					-	41					
17	g	3	7	25	+	42					
18	g	3	2	20	+	43					
19	g	3	2	25	+	44					
20					-	45					
21					-	46					
22	g	3	7	24	+	47					
23	g	3	7	23	+	48					
24	g	3	2	22	+	49					
25	g	3	2	18	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover = (# veg. hits/25 or 30) \* 100

20/25 = 80%

g = grass seedling, mkn  
g2 = Carex  
g = Leptochloa

Add. sp. salix exigua, persicaria, xanthium strumarium, lepidium ~~perenne~~  
emergent pockets of d-pha in the area  
lat

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/5/2018 Sample Crew: LP, AL, DL Plot Number: WTM 59B Location: Pin Creek

Visual estimate before sampling; CWHR habitat type: Wet meadow (WTM)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0'	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 20.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1'	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

0 CYPER 3 2 FA26 + 1

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent Herb/Hrb	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	NIPIRA	3	2	7.5	+	26					
2	NIPIRA	3	2	22	L	27					
3	IV	1	1	1	L	28					
4	G	3	2	18	+	29					
5	JG2	1	1	1	+	30					
6	G	3	2	23	+	31					
7	JG	3	2	31	+	32					
8	JG	3	2	15	L	33					
9	G2	1	1	1	+	34					
10	JG	3	2	20	+	35					
11	G2	1	1	1	+	36					
12	Polygonum	3	1	4	+	37					
13	JG2	1	1	3	+	38					
14	G	3	2	24	+	39					
15	G					40					
16	G	3	2	28	L	41					
17	Xanthox	3	2	22	+	42					
18	"	"	"	"	"	43					
19	G	3	2	11	+	44					
20	JG	3	2	23	+	45					
21	JG	3	2	28	+	46					
22	Polygonum	3	1	5	+	47					
23	JG	3	2	32	+	48					
24	JG2	1	1	1	+	49					
25	JGL	1	1	3	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover = (# veg. hits/25 or 30) \* 100

$24/25 = 96\%$

*JG2* is probably carex a Polygonum? may be Ixohrum



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/5/2018 Sample Crew: LP, AL, DL Plot Number: WTM 59C Location: Pine Creek

Visual estimate before sampling; CWHR habitat type: wet meadow (A WTM)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above base)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	12.0	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

0 cypric 3 2 22 +

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent Herb Herb.	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	oz	1	1	1	+	26					
2	salix	3	2	68	+	27					
3					-	28					
4	Salix	3	2	82	+	29					
5	typha	1	2	19	+	30					
6					-	31					
7	g	3	2	20	+	32					
8	r	3	2	38	+	33					
9	bulbo	3	2	29	+	34					
10					-	35					
11	g	3	2	32	+	36					
12	J				-	37					
13	oz	1	1	1	+	38					
14	oz	1	1	2	+	39					
15	poly	3	1	5	+	40					
16	cyper	3	2	23	+	41					
17	"	"	"	"	"	42					
18					-	43					
19	g	3	2	20	+	44					
20	oz	1	1	1	+	45					
21	g	3	2	31	+	46					
22	oleo	3	1	10	+	47					
23	oleo	3	2	13	+	48					
24					-	49					
25	oleo	3	1	9	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover = (# veg. hits/25 or 30) \* 100

20/25 = 80%

Pic-billed grebe western pond turtle + point  
song sparrow

WTM60

CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak				LAYER, HERBACEOUS >10% herb. understorey			SNAG, LARGE (ROTTEN) >30" dbh		
ALGAE - Any algae other than kelp			1	LAYER, SHRUB >10% shrub understorey		1	SNAG, LARGE, (SOUND) >30" dbh		
1 AMPHIBIANS - Frogs, Toads, etc.	1	0		LAYER, TREE >10% subcanopy trees		1	SNAG, MEDIUM (ROTTEN) 15-30" dbh		
AQUATICS, EMERGENT				LICHENS			SNAG, MEDIUM (SOUND) 15-30" dbh		
AQUATICS, SUBMERGED			0	LITHIC - Rock scatter <10" diam.		1	SNAG, SMALL (ROTTEN) <15" dbh		
1 BANK - Cut, hollow or lake border	1			LITTER - Residue <1" indiam.		1	SNAG, SMALL (SOUND) <15" dbh	1	0
1 BARREN - Devoid of veg. within veg. area			1	LOG, LARGE (HOLLOW) >20" diam.		1	SOIL, AERATED - Well drained		1
BERRIES - Small, pulpy fruit				LOG, LARGE (ROTTEN) >20" diam.		1	SOIL, FRIABLE - Easily crumbled		1
1 BIRDS, LARGE - > 450g (1lb)	1	1		LOG, LARGE (SOUND) >20" diam.		1	SOIL, GRAVELLY - Gravel 8-3" diam.		
1 BIRDS, MED. - 110-450g (4oz-1lb) lb(1111)	1	1		LOG, MEDIUM (HOLLOW) 10-20" diam.		1	SOIL, ORGANIC - >20% organic matter (wght)		
1 BIRDS, SMALL - < 110g (4oz)	1	1		LOG, MEDIUM (ROTTEN) 10-20" diam.		1	SOIL, SALINE - Alkaline soils/veg.		
1 BOGS - Low-lying, residue rich areas		0		LOG, MEDIUM (SOUND) 10-20" diam.		1	SOIL, SANDY - Sand 0.5-2mm diam.	1	0
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	1	1		MAMMALS, LARGE - > 2270g (5lb)		1	SPRINGS - Freshwater springs, seeps		
0 BUILDINGS - Houses, sheds, etc.		0	1	MAMMALS, MED. - 110-2270g (4oz-5lb)		1	SPRINGS, HOT		
0 BURROW - Excavation made by animal	1	1	1	MAMMALS, SMALL - < 110g (4oz)		1	SPRINGS, MINERAL		
CAMPGROUND				MOSS - Bryophytes		1	STEEP SLOPE - Slopes >50%		0
CARRION - Any dead animal matter	1		1	MUD FLATS - contiguous with water body		0	STREAMS, INTERMITTENT		1
CAVE - Natural chamber open to surface				NECTAR			STREAMS, PERMANENT		
CLIFF - Steep, vertical overhanging face	1			NEST BOX - Constructed nesting cavity			STUMP (ROTTEN)-snag <3m (10') high		
CONES - From gymnosperm trees				NEST PLATFORM - Const. large platform			STUMP (SOUND)-snag <3m (10') high		
DUFF - Non-structured decaying matter				NEST ISLAND - Man-made nesting island			TALUS - Slope from rock accumulation		
DUMP - Sanitary landfill				NUTS - Hard-shelled, dry fruit			TIDEPOLS		
EGGS - Any bird or reptile eggs				PACK STATION - with assoc. human use			TRANSMISSION LINES		
1 FENCES - Any type		0		PONDS - Permanent, <2ha (5 acres) surf area			TREE LEAVES		1
FERN - Spore-forming plants with fronds			1	REPTILES		1	TREE, BROKEN LIVE TOP >11" dbh		1
FISH				RIPARIAN INCLUSION - Riparian veg. (small)		0	TREE, W/ CAVITIES		1
FLOWERS				RIVERS - Perm., >6m (20') wide in dry season		0	TREE, W/ LOOSE BARK		0
FORDS - Herbaceous dicotyledons		1		ROCK - Outcrop >10" diam.		0	TREE/AGRICULTURE - Interface		
FRUITS - Pulpy fruit				ROOTS			TREE/GRASS - Interface		
FUNGI - Mushrooms, molds, etc.				SALT PONDS - Saline ponds			TREE/SHRUB - Interface		1
GRAIN - A single, hard cereal seed		1		SAND DUNE			TREE/WATER - Interface		
GRAMINOIDS - Grass-like plants		1		SAP			TREES, FIR - <i>Abies sp.</i> >11" dbh		
GRASS/AGRICULTURE - Interface				SEEDS - Other than listed above			TREES, HARDWOOD - >11" dbh		
GRASS/WATER - Interface				SHRUB/AGRICULTURE - Interface			TREES, PINE - <i>Pinus sp.</i> > 11" dbh		
1 INSECTS, FLYING - Insect eaten in air	1	1		SHRUB/GRASS - Interface			VERNAL POOLS		
1 INSECTS, TERRESTRIAL	1	1		SHRUB/WATER - Interface			WATER - Any source of free water		
1 INVERTEBRATES	1	1		SHRUBS - Woody plants, not trees		1	WATER, FAST - Unsited, >2ft/sec. flows		
INVERTEBRATES, AQUATIC				SLASH, LARGE (ROTTEN) Residue 3-10" diam.		1	WATER, CREATED BODY - Guzzler, well, etc.		
JETTY - Rock/concrete extending into water				SLASH, LARGE (HOLLOW) Residue 3-10" diam.		1	WATER, SLOW - Some silt, flows < .5ft/sec.		
KELP - Large, coarse, brown algae				SLASH, LARGE (SOUND) Residue 3-10" diam.		1	WATER/AGRICULTURE - Interface		
LAKES - Permanent >2ha (5 acres)				SLASH, SMALL Residue 1-3" diameter		1	WHARF		

MINE - excavated for minerals

\* area dry but is typically wet

WTM60

VRI 57  
SGB 3  
WTM 60

VRI 57  
SGB 3  
WTM 60

VRI 57  
SGB 3

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: LP AL Plot Number: WTM60A Location: Elderberry Forebay

Visual estimate before sampling; CWHR habitat type: FEW → dry now → however typ conditions inundated

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam above butt.)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

herbaceous

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1					-	26	TAM	S	1	1	+
2	TAM	S	1	3	+	27					
3					-	28					
4					-	29					
5	TAM	S	1	2	+	30					
6					-	31					
7					-	32					
8	TAM	S	1	1	+	33					
9					-	34					
10					-	35					
11					-	36					
12	TAM	S	1	2	+	37					
13					-	38					
14	TAM	S	1	4	+	39					
15					-	40					
16					-	41					
17					-	42					
18					-	43					
19					-	44					
20					-	45					
21	TAM	S	1	4	+	46					
22					-	47					
23					-	48					
24	TYP	D	2	13	+	49					
25	TYP	↓	↓	↓	+	50					

↓ typha

**VEGETATION COVER MEASUREMENT**

9/26 = 35%

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

dry retention basin connected to Castaic Creek  
extreme soil cracking, dry  
dominated by emergent veg, other areas have Tamarix seedlings

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: LP Plot Number: WTM60B Location: Elderberry Forebay  
 Visual estimate before sampling; CWHR habitat type: AL FEW

CWHR Class	Standards For Size Classes					Standards For Canopy Closure		
	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 15"	< 2 0'	S	Sparse cover	10 0-24.9% Shrub, 2 0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1 5- 19 9" (PO) 1 5 5 9" (JT)	2 0'-9 9'	M	Open cover	25 0-39.9% Shrub, 10 0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10 0'-19 9'	M	Mod. cover	40 0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20 0'	D	Dense cover	≥ 60.0% all types

herbaceous

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	<del>TYP</del>										
2	TYP	D	2	28	+	27	TYP	2	D	34	+
3	TAN	D	1	4	+	28					
4						29					
5	TAN	S	1	4	+	30					
6						31					
7	TYP	D	2	29	+	32					
8						33					
9						34					
10						35					
11	TYP	D	2	24	+	36					
12	TYP	D	2	21	+	37					
13	TYP	D	2	19	+	38					
14	TYP	D	2	12	+	39					
15						40					
16	TYP	D	2	24	+	41					
17	TYP	D	2	19	+	42					
18	TYP	D	2	20	+	43					
19	TYP	D	2	18	+	44					
20						45					
21	TYP	D	2	35	+	46					
22	TYP	D	2	30	+	47					
23	TYP	D	2	45	+	48					
24	TYP	D	2	39	+	49					
25	TYP	D	2	35	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

17/26 = 65%

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: AL LP Plot Number: WTM 600 Location: Elderberry Forebay  
 Visual estimate before sampling; CWHR habitat type: FEW

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. @ Maturity)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
<u>D</u>	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 1 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
<u>D</u>	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	<u>D</u>	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (m/ft)	hit or miss
1	TYP	D	2	12	+	20	TYP	D	2	78	+
2	TYP	P	2	28	+						
3				50							
4				77							
5				71							
6				81							
7				72							
8				63							
9				59							
10				126							
11				42							
12				49							
13				63							
14				77							
15				80							
16				45							
17				34							
18				76							
19				68							
20				69							
21				67							
22				79							
23				90							
24				80							
25				77							

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

100%

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WTH kel

### CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input type="checkbox"/>	LAYER, HERBACEOUS >10% herb. understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE, (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	<input type="checkbox"/>	LITHIC - Rock scatter <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border	<input type="checkbox"/>	LITTER - Residue <1" indiam.	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg. within veg. area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam.	<input type="checkbox"/>	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROTTEN) >20" diam.	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam.	<input type="checkbox"/>	SOIL, GRAVELLY - Gravel 8-3" diam.
<input type="checkbox"/>	BIRDS, MED. - 110-450g (4oz-1lb) (b l l l l l l)	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam.	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic matter (wght.)
<input type="checkbox"/>	BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROTTEN) 10-20" diam.	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg.
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas	<input type="checkbox"/>	LOG, MEDIUM (SOUND) 10-20" diam.	<input type="checkbox"/>	SOIL, SANDY - Sand .05-2mm diam.
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/>	MAMMALS, LARGE - >2270g (5lb.)	<input type="checkbox"/>	SPRINGS - Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc.	<input type="checkbox"/>	MAMMALS, MED. - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
<input type="checkbox"/>	BURROW - Excavation made by animal	<input type="checkbox"/>	MAMMALS, SMALL - < 110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input type="checkbox"/>	STEEP SLOPE - Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS - contiguous with water body	<input type="checkbox"/>	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	<input type="checkbox"/>	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN) - snag <3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND) - snag <3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying matter	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS - Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit.	<input type="checkbox"/>	TIDEPOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc. human use	<input type="checkbox"/>	TRANSMISSION LINES
<input type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf. area	<input type="checkbox"/>	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	<input type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input type="checkbox"/>	FLOWERS	<input type="checkbox"/>	RIVERS - Perm., >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam.	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/>	SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE/SHRUB - Interface
<input type="checkbox"/>	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
<input type="checkbox"/>	GRAMINOIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	<input type="checkbox"/>	SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE - Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB/GRASS - Interface	<input type="checkbox"/>	VERNAL POOLS
<input type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB/WATER - Interface	<input type="checkbox"/>	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES	<input type="checkbox"/>	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsilted; >2ft/sec. flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	<input type="checkbox"/>	WATER, SLOW - Some silt; flows < .5ft/sec.
<input type="checkbox"/>	KELP - Large, coarse, brown algae	<input type="checkbox"/>	SLASH, LARGE (SOUND) Residue 3-10" diam.	<input type="checkbox"/>	WATER/AGRICULTURE - Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/>	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WHARF

MINE - excavated for minerals



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: LP Plot Number: WTM61A Location: Elderberry Forebay

Visual estimate before sampling; CWHR habitat type: NZ CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)
1	ER12	M	3	47	↓	16	ER12	M	3	69	+
2						27					
3						28	BR2MAD	D	1	9	+
4						29					
5	BR2MAD	D	1	6	+	30					
6	FAB	D	2	90	+	31					
7	"	"	"	"	"	32	BR2MAD	D	1	3	+
8						33					
9						34					
10	BR2MAD	D	1	2	+	35					
11	Dead FAB			79	+	36	BR2MAD	D	1	3	↓
12						37					
13						38					
14						39					
15						40					
16						41	BR2MAD	D	1	8	+
17	BR2MAD	D	1	6	↓	42					
18	gressica	D	2	37	+	43					
19	BR2MAD	D	1	4	+	44					
20						45					
21	BR2MAD	D	1	3	+	46					
22						47					
23						48					
24						49					
25						50					

**VEGETATION COVER MEASUREMENT**

19/26 = 73

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

- American cock
- Red-tail hawk
- Raven

→ *Cytisus scoparius*  
 FAB = unknown fabaceae ~~Planting?~~  
 ER12 = long branch trigonum  
 intergrade of chaparral and FAB dominant area along lakeshore

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/18/18 Sample Crew: LP Plot Number: AL Location: WTM61B Elderberry Forebay  
 Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	↓		↓		↓	26	FAB	M	3	102	+
2	↓		↓		↓	27					
3	↓		↓		↓	28					
4	FAB	M	3	61	+	29					
5	↓		↓		↓	30					
6	↓		↓		↓	31					
7	FAB	M	3	92	+	32					
8	↓		↓		↓	33					
9	↓		↓		↓	34	BRMAD	D	1	6	+
10	BRIDIA	D	2	18	+	35					
11	↓		↓		↓	36					
12	FAB	M	3	78	+	37	BRMAD	D	1	9	+
13	↓		↓		↓	38	BRMAD	D	1	4	+
14	↓		↓		↓	39					
15	↓		↓		↓	40	BRMAD	D	1	4	+
16	↓		↓		↓	41	"	D	1	8	+
17	↓		↓		↓	42					
18	↓		↓		↓	43					
19	↓		↓		↓	44					
20	FAB	M	3	79	+	45					
21	"	"	"	"	"	46	BRMAD	D	1	9	+
22	FAB	M	3	95	+	47					
23	↓		↓		↓	48					
24	↓		↓		↓	49	BRMAD	D	2	12	+
25	↓		↓		↓	50	BRMAD	D	1	9	+

**VEGETATION COVER MEASUREMENT**

23/26 = 88%

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

~~change (not VOTAD)~~

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/18/18 Sample Crew: LP Plot Number: WIM61C Location: Elderberry Forebay  
AL

Visual estimate before sampling; CWHR habitat type: CSC

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1.5"	< 2 0"	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2 0'-9 9"	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10 0'-19 9"	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%		≥ 20.0"		D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in/ft)	hit or miss
1	BR-MAD	D	1	15	+	70	ER-FAS	M	3	43	+
2	FAB	D	4	66	+	27	BR-MAD	D	2	17	+
3						28					
4						29					
5						30					
6	ER-FAS	M	3	31	+	31					
7	ER-FAS	M	3	28	+	32					
8	"	"	"	"	"	33					
9	FAB	M	3	70	+	34					
10						35					
11						36					
12	Dead FAB			66	+	37					
13						38					
14						39					
15						40					
16	FAB	M	3	58	+	41					
17	"	"	"	"	"	42					
18	FAB	Y	2	54	+	43	BR-MAD	D	1	4	+
19						44					
20	BR-MAD	D	1	5	+	45					
21						46					
22						47					
23						48					
24						49					
25	BR-MAD	D	1	11	+	50					

VEGETATION COVER MEASUREMENT

21/26 = 81%

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

mule fat

10-2-18 SA, DL

= AGS (w/ riparian inclusion 62A)

UNK-62



CWHR HABITAT ELEMENT CHECKLIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	LAYER, HERBACEOUS >10% herb. understory <b>I, O</b>	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	LAYER, SHRUB >10% shrub understory <b>I</b>	SNAG, LARGE (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.	LAYER, TREE >10% subcanopy trees	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	LICHENS	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	LITHIC - Rock scatter <10" diam.	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border	LITTER - Residue <1" in diam. <b>I, O</b>	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg. within veg. area	LOG, LARGE (HOLLOW) >20" diam.	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit	LOG, LARGE (ROTTEN) >20" diam.	SOIL, FRIABLE - Easily crumbled <b>I, O</b>
BIRDS, LARGE - > 450g (1lb) <b>I, O</b>	LOG, LARGE (SOUND) >20" diam.	SOIL, GRAVELLY - Gravel 8-3" diam.
BIRDS, MED. - 110-450g (4oz-1lb) <b>I, O</b>	LOG, MEDIUM (HOLLOW) 10-20" diam.	SOIL, ORGANIC - >20% organic matter (wght)
BIRDS, SMALL - < 110g (4oz) <b>I, O</b>	LOG, MEDIUM (ROTTEN) 10-20" diam.	SOIL, SALINE - Alkaline soils/veg
BOGS - Low-lying, residue rich areas	LOG, MEDIUM (SOUND) 10-20" diam. <b>ASLW?</b>	SOIL, SANDY - Sand 0.5-2mm diam <b>I, O</b>
BRUSH PILE - >1m high, >15m <sup>2</sup> basal area	MAMMALS, LARGE - > 2270g (5lb) <b>I, O</b>	SPRINGS - Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.	MAMMALS, MED. - 110-2270g (4oz-5lb) <b>I, O</b>	SPRINGS, HOT
BURROW - Excavation made by animal <b>I, O</b>	MAMMALS, SMALL - < 110g (4oz) <b>I, O</b>	SPRINGS, MINERAL
CAMPGROUND	MOSS - Bryophytes	STEEP SLOPE - Slopes > 50%
CARRION - Any dead animal matter	MUD FLATS - contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	NECTAR	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face	NEST BOX - Constructed nesting cavity	STUMP (ROTTEN) - snag <3m (10') high
CONES - From gymnosperm trees	NEST PLATFORM - Const. large platform	STUMP (SOUND) - snag <3m (10') high
DUFF - Non-structured decaying mater	NEST ISLAND - Man-made nesting island	TALUS - Slope from rock accumulation
DUMP - Sanitary landfill	NUTS - Hard-shelled, dry fruit.	TIDEPOLS
EGGS - Any bird or reptile eggs	PACK STATION - with assoc. human use	TRANSMISSION LINES
FENCES - Any type	PONDS - Permanent, <2ha (5 acres) surf area	TREE LEAVES
FERN - Spore-forming plants with fronds	REPTILES <b>I, O</b>	TREE, BROKEN LIVE TOP >11" dbh
FISH <b>1 canal</b>	RIPARIAN INCLUSION - Riparian veg. (small) <b>I</b>	TREE, W/ CAVITIES
FLOWERS <b>I, O</b>	RIVERS - Perm., >6m (20') wide in dry season	TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons <b>I, O</b>	ROCK - Outcrop >10" diam.	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	ROOTS	TREE GRASS - Interface <b>I</b>
FUNGI - Mushrooms, molds, etc.	SALT PONDS - Saline ponds	TREE SHRUB - Interface <b>I</b>
GRAIN - A single, hard cereal seed	SAND DUNE	TREE WATER - Interface
GRASSMINIDS - Grass-like plants <b>I, O</b>	SAP	TREES, FIR - <i>Abies sp</i> >11" dbh
GRASS/AGRICULTURE - Interface	SEEDS - Other than listed above	TREES, HARDWOOD - >11" dbh
GRASS WATER - Interface	SHRUB/AGRICULTURE - Interface	TREES, PINE - <i>Pinus sp</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air <b>I, O</b>	SHRUB/GRASS - Interface <b>O</b>	VERNAL POOLS
INSECTS, TERRESTRIAL <b>I, O</b>	SHRUB/WATER - Interface	WATER - Any source of free water <b>O</b>
INVERTEBRATES <b>I, O</b>	SHRUBS - Woody plants, not trees <b>I, O</b>	WATER, FAST - Unsilted, >2ft/sec flows
INVERTEBRATES, AQUATIC	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	WATER, CREATED BODY - Guzzler, well, etc.
JETTY - Rock/concrete extending into water	SLASH, LARGE (HOLLOW) Residue 3-10" diam.	WATER, SLOW - Some silt; flows < .5ft/sec.
KELP - Large, coarse, brown algae	SLASH, LARGE (SOUND) Residue 3-10" diam.	WATER/AGRICULTURE - Interface
LAKES - Permanent > 2ha (5 acres)	SLASH, SMALL Residue 1-3" diameter	WHARF

MINE - excavated for minerals

Moist area on slope

SAL EXI

ERI NAU periphery

NNGS: Bico MATD, Avena, Brassica, Heterotheca

Canal nearby

= Riparian inclusion in ~~AGS~~ AGS

## CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10-2-10 Sample Crew: SA OL Plot Number: 62A Location: Quail Lake  
 Visual estimate before sampling; CWHR habitat type: AGS → however, location as who = AGS  
SALIX EXIGUA - seep on slope? Plot is in riparian inclusion

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above buds)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0"	S	Sparse cover	10 0-24 9% Shrub 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1 5- 19 9" (PO) 1 5-5 9" (JT)	2 0-9 9"	P	Open cover	25 0-39 9% Shrub, 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0'-19 9'	M	Mod cover	40 0-59 9% all types
(4)	Decadent shrub	≥ 25 0%			≥ 20 0'	(D)	Dense cover	≥ 60 0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt	Species	Age	% Decadent	Ht (in/ft)	hit or miss (#)	Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss
0	SAL EXI	D	4	82 in.	+						
1	SAL EXI	D	4	73 in.	+	26					
2	SAL EXI	D	4	59 in.	+	27					
3	↓	↓	↓	↓	+	28					
4	↓	↓	↓	↓	+	29					
5	↓	↓	↓	↓	+	30					
6	↓	↓	↓	↓	+	26	BROMUS	D	1	3 in.	+
7	BROMUS	D	1	9 in.	+	27	SAL EXI	D	4	73 in.	+
8	SAL EXI	D	4	73 in.	+	33					
9	↓	↓	↓	↓	+	34					
10	↓	↓	↓	↓	+	35					
11	BRO MAD	D	1	12 in.	+	36					
12	BRO MAD	D	2	17 in.	+	37					
13	BRO TEC	D	2	19 in.	+	38					
14	AVENA	D	2	21 in.	+	39					
15					-	40					
16	SAL EXI	D	4	53 in.	+	41					
17	SAL EXI	D	4	26 in.	+	17	BRO MAD	D	2	14 in.	+
18	"	"	"	"	+	18	"	"	1	11 in.	+
19					-	44					
20					-	45					
21	BRO TEC	D	1	10 in.	+	46					
22	BRO MAD	D	2	15 in.	+	47					
23	AVENA	D	2	19 in.	+	48					
24					-	49					
25					-	50					

DEAD  
DEAD

### VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

- count dead?  
 $\frac{21}{26} = 81\%$

BAC SAL  
 larger Salix - collected lvs, photos  
 just outside plot



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/18 Sample Crew: ICDL Plot Number: UNK 62B Location: Anaïl Canal

Visual estimate before sampling; CWHR habitat type: WWS AGS

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	<b>S</b>	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
<b>3</b>	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	grivoc			9	+	26					
2	acnemo			12	+	27					
3	brumid			9	+	28					
4	brumid			9	+	29					
5					-	30					
6					-	31					
7	avetat			16	+	32					
8	avetat			16	+	33					
9	brumid			9	+	34					
10					-	35					
11	avetat			16	+	36					
12	brumid			9	+	37					
13	hirinc			14	+	38					
14	hirinc			14	+	39					
15	brumid			7	+	40					
16	avetat			16	+	41					
17	arielo			9	+	42					
18					-	43					
19					-	44					
20	brumid			7	+	45					
21	↓			7	+	46					
22				7	+	47					
23					-	48					
24	brumid			9	+	49					
25					-	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

all plants decadent  
ex Acnemo  
18/26 = 69%

sprinkler (acnemo americanus)  
wild oat (avena)  
moss (hirinc)

heterogrand  
lactuca  
salix lae  
here



CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM

NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/22/18 Sample Crew: IC DL Plot Number: UNX 62C Location: Quail Canal

Visual estimate at plot center before sampling: CWHR habitat type, size class and canopy closure class: UNX AG-5  
 Structure: Even-structure: \_\_\_\_\_ or Uneven-structure: \_\_\_\_\_

Standards For Tree Size					Standards For Canopy Closure		
CWHR Code	CWHR Size Class	Conifer Crown Diameter	Hardwood Crown Diameter	DBH	CWHR Code	CWHR Closure Class	Veg. Cover (Canopy Closure)
1	Seedling tree	n/a	n/a	<1.0"	<u>S</u>	Sparse Cover	10.0-24.9%
2	Sapling tree	n/a	<15.0'	1.0"-5.9"	P	Open cover	25.0-39.9%
<u>3</u>	Pole tree	<12.0'	15.0'-29.9'	6.0"-10.9"	M	Mod. Cover	40.0-59.9%
4	Small tree	12.0'-23.9'	30.0'-44.9'	11.0"-23.9"	D	Dense Cover	>60.0%
5	Medium/large tree	≥24.0'	≥45.0'	≥24.0"	Uneven-structure = ≥3 CWHR size classes, or if only 2 classes present, then the classes must skip an intervening class (e.g. 5 and 3 present but not 4) with distinctive height separation. Plots are even-structured if they do not meet uneven-structure definition.		
6	Multi-layered tree	A distinct layer of size class 5 trees over a distinct layer of size class 4 and/or 3 trees, and total tree canopy of the layers ≥ 60% (layers must have ≥ 10.0% canopy cover and distinctive height separation)					

Record species and dbh from all live woody stems ≥ 5.0" dbh in a 0.1-acre circular plot (37.2 ft radius). Crown diameter and height are from 1 tree/cardinal compass quarter with point-centered quarter for a total of 4 trees/plot. Overstory trees include pre-dominants and dominants, and generally co-dominants. Intermediate trees may be overstory understorey trees depending on relative crown position, while suppressed trees should always be understorey trees.

Stem #	Species	Over/under	dbh (0.1 in) in	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad	Stem #	Species	Over/under	dbh (0.1 in)	Crown diam (ft)	Ht (ft)	pt-ctr 1/4 quad
1	brn dia				14	+	26	brn dia					+
2	brn dia				16	+	27						
3	brn dia				16	+	28						
4	brn dia				16	+	29						
5	brn dia				16	+	30						
6	acme				8	+	31						
7	acme				8	+	32						
8	acme				8	+	33						
9	brn dia				12	+	34						
10	brn dia				12	+	35						
11	brn dia				12	+	36						
12	brn dia				12	+	37						
13	hir me				16	+	38						
14	hir me				15	+	39						
15	hir me				16	+	40						
16							41						
17	brn dia				12	+	42						
18	hir me				16	+	43						
19	hir me				16	+	44						
20	hir me				16	+	45						
21	hir me				16	+	46						
22	brn dia				12	+	47						
23	acme				8	+	48						
24	brn dia				10	+	49						
25	hir me				14	+	50						

OVERSTORY CANOPY COVER MEASUREMENT

Overstory cover hits (+) and misses (0) measured through a sighting tube at 6.2 ft. intervals beginning at the North stake and proceeding along the N-S axis for 13 readings, then from the East stake along the E-W axis for 12 readings and skipping the center stake. Take readings with tube held over the 6.2 ft. interval.

Percent Cover = (no. hits/25) \* 100.

N-S: \_\_\_\_\_

E-W: \_\_\_\_\_

Held the canopy (Center stake)

25/26 = 96%

All plants present ex Acme cover adjacent

UNK63

CWHR HABITAT ELEMENT CHECKLIST

(SGB) ✓

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input type="checkbox"/>	LAYER, HERBACEOUS >10% herb understory	<input type="checkbox"/>	SNAG, LARGE (ROTTEN) >30" dbh
<input type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROTTEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	<input type="checkbox"/>	LITHIC - Rock scatter <10" diam	<input type="checkbox"/>	SNAG, SMALL (ROTTEN) <15" dbh
<input type="checkbox"/>	BANK - Cut, hollow or lake border	<input type="checkbox"/>	LITTER - Residue <1" in diam	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg within veg area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam	<input type="checkbox"/>	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROTTEN) >20" diam	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam	<input type="checkbox"/>	SOIL, GRAVELLY - Gravel 3-3" diam
<input type="checkbox"/>	BIRDS, MED - 110-450g (4oz-1b) (b1111111)	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic matter (wght)
<input type="checkbox"/>	BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROTTEN) 10-20" diam	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas	<input type="checkbox"/>	LOG, MEDIUM (SOUND) 10-20" diam	<input type="checkbox"/>	SOIL, SANDY - Sand .05-2mm diam
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/>	MAMMALS, LARGE - > 2270g (5lb)	<input type="checkbox"/>	SPRINGS-Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc	<input type="checkbox"/>	MAMMALS, MED - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
<input type="checkbox"/>	BURROW - Excavation made by animal	<input type="checkbox"/>	MAMMALS, SMALL - < 110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input type="checkbox"/>	STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS- contiguous with water body	<input type="checkbox"/>	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	<input type="checkbox"/>	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN)-snag <3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND)-snag <3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying matter	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS-Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit	<input type="checkbox"/>	TIDEPOOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc human use	<input type="checkbox"/>	TRANSMISSION LINES
<input type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf area	<input type="checkbox"/>	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	<input type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input type="checkbox"/>	FLOWERS	<input type="checkbox"/>	RIVERS - Perm., >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc	<input type="checkbox"/>	SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE/SHRUB - Interface
<input type="checkbox"/>	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
<input type="checkbox"/>	GRASSMINIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp.</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	<input type="checkbox"/>	SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE - Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp.</i> > 11" dbh
<input type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB/GRASS - Interface	<input type="checkbox"/>	VERNAL POOLS
<input type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB/WATER - Interface	<input type="checkbox"/>	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES	<input type="checkbox"/>	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsited, >2ft/sec flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROTTEN) Residue 3-10" diam.	<input type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam	<input type="checkbox"/>	WATER, SLOW - Some silt, flows < 5ft/sec
<input type="checkbox"/>	KELP - Large, coarse, brown algae	<input type="checkbox"/>	SLASH, LARGE (SOUND) Residue 3-10" diam.	<input type="checkbox"/>	WATER/AGRICULTURE - Interface
<input type="checkbox"/>	LAKES - Permanent > 2ha (5 acres)	<input type="checkbox"/>	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WHARF

canal nearby

MINE - excavated for mine rats

rubber rabbit brush scrub patch → surroundings mostly grassli

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: LP Plot Number: UNK63A Location: north of Quail Lake along canal  
Visual estimate before sampling; CWHR habitat type: Rubber rabbitbrush (SG-B)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. shoot diameter)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0"	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dominant

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	BROMAD	D	1	2	+	0					
2	forb	D	2	17	+	27					
3	ERINAU	M	3	36	+	28					
4					+	29					
5					+	30					
6					+	31					
7	Erodium	D	1	2	+	32					
8					-	33					
9	bunchgrass	D	2	19	+	34					
10	bunchgrass	D	2	21	+	35					
11					-	36					
12	grass	D	1	4	+	37					
13	grass	D	1	4	+	38					
14	bunch	D	2	19	+	39					
15	grass	D	1	9	+	40					
16	aster	D	2	18	+	41					
17	aster	D	2	16	+	42					
18	bunchg	D	2	20	+	43					
19	ERINAU	M	3	42	+	44	→ bunch	D	2	27	+
20	bunch	D	2	22	+	45					
21	aster	D	2	21	+	46					
22	aster	D	2	18	+	47					
23					-	48					
24					-	49					
25					-	50					

aster = *Corethrogyne filaginifolia*  
bunch = unknown bunchgrass (stipa?)

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100  
20/26 = 77%

*Bromus madriren.*  
unknown bunchgr  
telegraph weed  
*Stephanomeria*  
*Avena*  
*Erodium*

somewhat open patch compared to surroundings

denser area of shrub cover

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: LP Plot Number: UNK-63B Location: Quail - North along Canal  
Visual estimate before sampling; CWHR habitat type: Rubber rabbitbrush (SG-B)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above 4.5 ft)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0"	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0-9.9"	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9"	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0"	D	Dense cover	≥ 60.0% all types

dominant

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	ERINAV	(same as 0)			+	20	ERINAV	M	3	36	+
2	↓				+	21	BROMAD	D	1	5	+
3	↓				+	22	BROMAD	D	1	3	+
4	ERINAV	M	3	33	+	23	BROMAD	D	2	12	+
5	↓				+	24	BROMAD	D	1	5	+
6	ERINAV	M	3	27	+	25	BROMAD	D	1	6	+
7	ERINAV	M	3	44	+	26	BROMAD	D	1	9	+
8	↓				+	33					
9	↓				+	34	BROMAD	D	1	8	+
10					-	35					
11	BROMAD	D	1	5	+	36					
12	ERINAV	D	4	32	+	37					
13	↓				+	38	BROMAD	D	1	7	+
14	ERINAV	M	3	33	+	39	BROMAD	D	1	6	+
15	↓				+	40	BROMAD	D	1	9	+
16	ERINAV	D	4	31	+	41	BROMAD	D	1	6	+
17	ERINAV	D	4	38	+	42	BROMAD	D	1	10	+
18	ERINAV	M	3	51	+	43	BROMAD	D	1	2	+
19	ERINAV	M	3	38	+	44	BROMAD	D	2	2	+
20	↓				+	45	BROMAD	D	1	3	+
21	↓				+	46	BROMAD	D	1	4	+
22	ERINAV	D	4	32	+	47	BROMAD	D	1	9	+
23	↓				+	48	BROMAD	D	2	14	+
24	↓				+	49	BROMAD	D	1	10	+
25	ERINAV	D	4	39	+	50	BROMAD	D	1	6	+

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$\frac{25}{26} = 96\%$

- quail
- meadowlark
- jackrabbit
- house finch

see plot n for species list

+ Brassica sp.  
Croton setiger

steep slope

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: LP Plot Number: URK63C Location: Quail - north along canal  
Visual estimate before sampling; CWHR habitat type: Rubber rabbit brush (SFB)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. show bud)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

dom.

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	BROMAD	D	1	7	+	20	ERINAW	M	3	23	+
2	bunchgrass	D	2	14	+	21	BROMAD	D	1	2	+
3	bunch	D	2	18	+	26	ERINAW	D	4	48	+
4	ERINAW	(same as 3)		3	+	29					
5					+	30					
6					+	31					
7					+	33	bunch	D	2	22	+
8					+	34	BROMAD	D	1	6	+
9	Avena	D	2	12	+	35					
10					-	36					
11	BRODIA	D	1	6	+	36					
12	ERINAW	dead		40	+	40	Poa	D	2	12	+
13						45	Poa	D	2	13	-
14						46	Poa	D	2	14	+
15						47	Poa	D	1	7	+
16					-	41					
17	ERINAW	M	3	32	+	42	BROMAD	D	1	7	+
18						43	BRODIA	D	2	14	+
19						44	Avena	D	2	39	+
20						45	Avena	D	2	16	+
21	forb	D	1	11	+	46					
22	aster	M	2	30	+	48					
23					-	49					
24	Poa	D	2	14	+	49					
25	BROMAD	D	1	10	+	50					

VEGETATION COVER MEASUREMENT

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover = (# veg. hits/25 or 30) \* 100

$23/26 = 88\%$

horned lark

- Bromus madritensis
- Bromus diandrus
- Stephanomeria
- unk purple aster
- Lupinus sp.
- Eriogonum sp.



CWHR HABITAT ELEMENT CHECKLIST

LNK-64 = SGB

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

ACORNS - Fruit of an oak	LAYER, HERBACEOUS >10% herb understory I,O	SNAG, LARGE (ROTTEN) >30" dbh
ALGAE - Any algae other than kelp	LAYER, SHRUB >10% shrub <sup>over</sup> understory I,O	SNAG, LARGE, (SOUND) >30" dbh
AMPHIBIANS - Frogs, Toads, etc.	LAYER, TREE >10% subcanopy trees	SNAG, MEDIUM (ROTTEN) 15-30" dbh
AQUATICS, EMERGENT	LICHENS	SNAG, MEDIUM (SOUND) 15-30" dbh
AQUATICS, SUBMERGED	LITHIC - Rock scatter <10" diam	SNAG, SMALL (ROTTEN) <15" dbh
BANK - Cut, hollow or lake border	LITTER - Residue <1" indiam I,O	SNAG, SMALL (SOUND) <15" dbh
BARREN - Devoid of veg within veg area	LOG, LARGE (HOLLOW) >20" diam	SOIL, AERATED - Well drained
BERRIES - Small, pulpy fruit	LOG, LARGE (ROTTEN) >20" diam	SOIL, FRIABLE - Easily crumbled I,O
BIRDS, LARGE - > 450g (1lb) I,O	LOG, LARGE (SOUND) >20" diam	SOIL, GRAVELLY - Gravel 3-3" diam
BIRDS, MED - 110-450g (4oz-1lb) (b 111111) I,O	LOG, MEDIUM (HOLLOW) 10-20" diam	SOIL, ORGANIC - > 20% organic matter (wght)
BIRDS, SMALL - < 110g (4oz) I,O	LOG, MEDIUM (ROTTEN) 10-20" diam	SOIL, SALINE - Alkaline soils/veg
BOGS - Low-lying, residue rich areas	LOG, MEDIUM (SOUND) 10-20" diam	SOIL, SANDY - Sand 0.5-2mm diam I,O
BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	MAMMALS, LARGE - > 2270g (5lb) I,O	SPRINGS-Freshwater springs, seeps
BUILDINGS - Houses, sheds, etc.	MAMMALS, MED - 110-2270g (4oz-5lb) I,O	SPRINGS, HOT
BURROW - Excavation made by animal I,O	MAMMALS, SMALL - < 110g (4oz) I,O	SPRINGS, MINERAL
CAMPGROUND	MOSS - Bryophytes	STEEP SLOPE-Slopes > 50%
CARRION - Any dead animal matter	MUD FLATS- contiguous with water body	STREAMS, INTERMITTENT
CAVE - Natural chamber open to surface	NECTAR	STREAMS, PERMANENT
CLIFF - Steep, vertical overhanging face	NEST BOX - Constructed nesting cavity	STUMP (ROTTEN)-snag<3m (10') high
CONES - From gymnosperm trees	NEST PLATFORM - Const. large platform	STUMP (SOUND)-snag<3m (10') high
DUFF - Non-structured decaying mater	NEST ISLAND - Man-made nesting island	TALUS-Slope from rock accumulation
DUMP - Sanitary landfill	NUTS - Hard-shelled, dry fruit.	TIDEPOLS
EGGS - Any bird or reptile eggs	PACK STATION - with assoc human use	TRANSMISSION LINES
FENCES - Any type 0	PONDS - Permanent, <2ha (5 acres) surf area	TREE LEAVES
FERN - Spore-forming plants with fronds	REPTILES I,O	TREE, BROKEN LIVE TOP >11" dbh
FISH	RIPARIAN INCLUSION - Riparian veg (small)	TREE, W/ CAVITIES
FLOWERS I,O	RIVERS - Perm. >6m (20') wide in dry season	TREE, W/ LOOSE BARK
FORBS - Herbaceous dicotyledons I,O	ROCK - Outcrop >10" diam.	TREE/AGRICULTURE - Interface
FRUITS - Pulpy fruit	ROOTS	TREE/GRASS - Interface
FUNGI - Mushrooms, molds, etc.	SALT PONDS - Saline ponds	TREE/SHRUB - Interface
GRAIN - A single, hard cereal seed	SAND DUNE	TREE/WATER - Interface
GRAMINOIDS - Grass-like plants I,O	SAP	TREES, FIR - <i>Abies sp</i> >11" dbh
GRASS/AGRICULTURE - Interface	SEEDS - Other than listed above	TREES, HARDWOOD - >11" dbh
GRASS/WATER - Interface	SHRUB/AGRICULTURE - Interface	TREES, PINE - <i>Pinus sp</i> > 11" dbh
INSECTS, FLYING - Insect eaten in air I,O	SHRUB/GRASS - Interface I,O	VERNAL POOLS
INSECTS, TERRESTRIAL I,O	SHRUB/WATER - Interface	WATER - Any source of free water 0
INVERTEBRATES I,O	SHRUBS - Woody plants, not trees I,O	WATER, FAST - Unsilted, >2ft/sec flows
INVERTEBRATES, AQUATIC 0	SLASH, LARGE (ROTTEN) Residue 3-10" diam	WATER, CREATED BODY - Guzzler, well, etc
JETTY - Rock/concrete extending into water	SLASH, LARGE (HOLLOW) Residue 3-10" diam	WATER, SLOW - Some silt; flows < .5ft/sec
KELP - Large, coarse, brown algae	SLASH, LARGE (SOUND) Residue 3-10" diam	WATER/AGRICULTURE- Interface
LAKES - Permanent > 2ha (5 acres)	SLASH, SMALL Residue 1-3" diameter	WHARF

MINE - excavated for minerals



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10-2-18 Sample Crew: SA DL Plot Number: 64A Location: Quail Lake

Visual estimate before sampling; CWHR habitat type: 5GB

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht (in ft)	hit or miss	Stem or Pt. #	Species	Age	% Decadent	Ht (in ft)	hit or miss
0	ERI NAU	D	4	42 in.	+						
1	ERI NAU	D	4	42 in.	+	2025	ERI NAU	D	4	45 in.	+
2	"	D	4	36 in.	+	27					
3	"	↓	↓	"	+	28					
4	"	D	4	37 in.	+	29					
5	"	D	4	"	+	30					
6	"	"	"	"	+	31					
7	"	D	4	48 in.	+	32					
8	↓	↓	↓	↓	+	33					
9	↓	↓	↓	↓	+	34					
10	"	D	4	36 in.	+	35					
11	"	D	4	45 in.	+	36					
12	"	"	"	"	+	37					
13	"	"	"	"	+	38					
14	"	M	3	35 in.	+	39					
15	"	D	4	45 in.	+	40					
16	Bromus	D	1	5.5 in.	+	41					
17	ERI NAU	D	4	39 in.	+	42					
18	↓	↓	↓	↓	+	43					
19	↓	↓	↓	↓	+	44					
20	↓	↓	↓	↓	+	45					
21	↓	↓	↓	↓	+	46					
22	Bromus	D	1	5 in.	+	47					
2022	ERI NAU	D	4	12 in.	+	48					
2023	"	"	"	"	+	49					
2024	"	D	4	45 in.	+	50					

**VEGETATION COVER MEASUREMENT**

Transect like almost all shrubs

26/26 = 100% cov

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover = (# veg. hits/25 or 30) \* 100

BRO MAD, BRO TEC

D for grass = dead

Doveweed?

~~Stephanomeria~~ ~~Corethrogyne nemorosissima~~ Stephanomeria

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10-2-18 Sample Crew: SA/ DL Plot Number: 648 Location: Quail Lake

Visual estimate before sampling; CWHR habitat type: SGB

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-99% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	BRO DIA	D	1	10 in.	+	26					
2	BRO DIA	D	1	6 in.	+	27					
3	unk herb	D	2	30 in.	+	28					
4	BRO DIA	D	1	11 in.	+	29					
5	"	D	1	10 in.	+	30					
6	"	"	1	9 in.	+	31					
7	BRO TEC	"	1	9 in.	+	32					
8	"	"	1	11 in.	+	33					
9	unk herb	"	2	21 in.	+	34	BRO DIA	D	1	7 in.	+
10	ERI NAU	M	3	48 in.	+	35	BRO DIA	D	2	16 in.	+
11	BRO DIA	D	2	18 in.	+	36	ERI NAU	M	3	29 in.	+
12	"	"	"	13 in.	+	37					
13	"	"	1	14 in.	+	38					
14	"	"	2	14 in.	+	39	ERE SET		1	10 in.	+
15	"	"	"	13 in.	+	40					
16	"	"	"	13 in.	+	41					
17	"	"	"	15 in.	+	42	ERI NAU	Young branch	2	30 in.	+
18	ERI NAU	D	4	27 in.	+	43	BRO TEC	D	2	19 in.	+
19	"	"	"	"	+	44	BRO MAD	D	1	12 in.	+
20	"	M	3	33 in.	+	45					
21	"	"	"	"	+	46					
22	"	"	"	"	+	47					
23	BRO TEC	D	1	9 in.	+	48					
24	BRO DIA	D	2	14 in.	+	49	ERI NAU	D	4	25 in.	+
25	ERI NAU	M	3	29 in.	+	50					

**VEGETATION COVER MEASUREMENT**

*Eremocarpus setigerus* =  
*Croton setiger*  
100% cover

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

Hel any  
BRO DIA

D for grass = dead

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10-2-18 Sample Crew: SA, DL Plot Number: UNK 104C Location: Quail Lake

Visual estimate before sampling; CWHR habitat type: SGB

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above budges)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree (S) Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb. Palm Oasis, Joshua Tree, & Desert types
2	Young shrub (YS) Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb. Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub (M) Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub (D)	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (in/ft)	hit or miss (+/-)
1	ERI NAW	M	3	33 in.	+	26					
2					-	27					
3	Steph. Steph	2		18 in.	+	28					
4	"	2			+	29					
5	ERI NAW	M	3	24 in.	+	30					
6	↓	↓	↓	↓	+	31					
7	↓	↓	↓	↓	+	32					
8	"	YS	2	32 in.	+	33					
9	"	"	"	"	+	34					
10	"	"	"	"	+	35					
11					-	36					
12					-	37					
13	unk herb	Se		1 in.	+	38					
14					-	39					
15	BROTEC	D	1	3 in.	+	40					
16	"	D	1	4 in.	+	41					
17	"	D	1	4 in.	+	42					
18	ERODIUM	D	1	4 in.	+	43					
19	BROMAD	D	1	3 in.	+	44					
20	ERODIUM	D	1	5 in.	+	45					
21					-	46					
22	BROMAD	D	1	4 in.	+	47					
23	BRO DIA	D	1	5 in.	+	48					
24	"	"	"	7 in.	+	49					
25					-	50					

**VEGETATION COVER MEASUREMENT**

19/26 = 73%

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover = (# veg. hits/25 or 30) \* 100

Steph = Stephanomenia  
~~Cor RAM = Corethrogyne pumiliostrata~~  
 Not this plot

CWHR HABITAT ELEMENT CHECKLIST

SG-B  
 Unknown GSA

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

	ACORNS - Fruit of an oak	I	LAYER, HERBACEOUS >10% herb understorey		SNAG, LARGE (ROTTEN) >30" dbh
	ALGAE - Any algae other than kelp	E	LAYER, SHRUB >10% shrub understorey		SNAG, LARGE (SOUND) >30" dbh
	AMPHIBIANS - Frogs, Toads, etc		LAYER, TREE >10% subcanopy trees		SNAG, MEDIUM (ROTTEN) 15-30" dbh
	AQUATICS, EMERGENT		LICHENS		SNAG, MEDIUM (SOUND) 15-30" dbh
	AQUATICS, SUBMERGED	I/O	LITHIC - Rock scatter <10" diam		SNAG, SMALL (ROTTEN) <15" dbh
	BANK - Cut, hollow or lake border	I/O	LITTER - Residue <1" indiam		SNAG, SMALL (SOUND) <15" dbh
O	BARREN - Devoid of veg within veg area		LOG, LARGE (HOLLOW) >20" diam	I/O	SOIL, AERATED - Well drained
	BERRIES - Small, pulpy fruit		LOG, LARGE (ROTTEN) >20" diam	I/O	SOIL, FRIABLE - Easily crumbled
I/O	BIRDS, LARGE - >450g (1lb)		LOG, LARGE (SOUND) >20" diam		SOIL, GRAVELLY - Gravel 8-3" diam
I/O	BIRDS, MED. - 110-450g (4oz-1lb) (b1111111)		LOG, MEDIUM (HOLLOW) 10-20" diam		SOIL, ORGANIC - >20% organic matter (wght)
I/O	BIRDS, SMALL - <110g (4oz)		LOG, MEDIUM (ROTTEN) 10-20" diam		SOIL, SALINE - Alkaline soils/veg
	BOGS - Low-lying, residue rich areas		LOG, MEDIUM (SOUND) 10-20" diam		SOIL, SANDY - Sand 0.5-2mm diam
	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area		MAMMALS, LARGE - >2270g (5lb)		SPRINGS-Freshwater springs, seeps
	BUILDINGS - Houses, sheds, etc	I/O	MAMMALS, MED - 110-2270g (4oz-5lb)		SPRINGS, HOT
I	BURROW - Excavation made by animal	I/O	MAMMALS, SMALL - <110g (4oz)		SPRINGS, MINERAL
	CAMPGROUND		MOSS - Bryophytes		STEEP SLOPE-Slopes > 50%
	CARRION - Any dead animal matter		MUD FLATS- contiguous with water body		STREAMS, INTERMITTENT
	CAVE - Natural chamber open to surface		NECTAR		STREAMS, PERMANENT
	CLIFF - Steep, vertical overhanging face		NEST BOX - Constructed nesting cavity		STUMP (ROTTEN)-snag <3m (10') high
	CONES - From gymnosperm trees		NEST PLATFORM - Const. large platform		STUMP (SOUND)-snag <3m (10') high
I/O	DUFF - Non-structured decaying matter		NEST ISLAND - Man-made nesting island		TALUS-Slope from rock accumulation
	DUMP - Sanitary landfill		NUTS - Hard-shelled, dry fruit		TIDEPOLS
	EGGS - Any bird or reptile eggs		PACK STATION - with assoc. human use		TRANSMISSION LINES
O	FENCES - Any type		PONDS - Permanent, <2ha (5 acres) surf area		TREE LEAVES
	FERN - Spore-forming plants with fronds		REPTILES		TREE, BROKEN LIVE TOP >11" dbh
	FISH		RIPARIAN INCLUSION - Riparian veg. (small)		TREE, W/ CAVITIES
I/O	FLOWERS		RIVERS - Perm. >6m (20') wide in dry season		TREE, W/ LOOSE BARK
I/O	FORBS - Herbaceous dicotyledons		ROCK - Outcrop >10" diam		TREE/AGRICULTURE - Interface
	FRUITS - Pulpy fruit		ROOTS		TREE/GRASS - Interface
	FUNGI - Mushrooms, molds, etc.		SALT PONDS - Saline ponds		TREE/SHRUB - Interface
	GRAIN - A single, hard cereal seed		SAND DUNE		TREE/WATER - Interface
I/O	GRAMINOIDS - Grass-like plants		SAP		TREES, FIR - <i>Abies sp.</i> >11" dbh
	GRASS/AGRICULTURE - Interface		SEEDS - Other than listed above		TREES, HARDWOOD - >11" dbh
	GRASS/WATER - Interface		SHRUB/AGRICULTURE- Interface		TREES, PINE - <i>Pinus sp.</i> > 11" dbh
I/O	INSECTS, FLYING - Insect eaten in air	I	SHRUB/GRASS - Interface		VERNAL POOLS
I/O	INSECTS, TERRESTRIAL		SHRUB/WATER - Interface	O	WATER - Any source of free water
I/O	INVERTEBRATES	I	SHRUBS - Woody plants, not trees	O	WATER, FAST - Unsilted, >2ft/sec flows
	INVERTEBRATES, AQUATIC		SLASH, LARGE (ROTTEN) Residue 3-10" diam		WATER, CREATED BODY - Guzzler, well, etc
	JETTY - Rock/concrete extending into water		SLASH, LARGE (HOLLOW) Residue 3-10" diam		WATER, SLOW - Some silt, flows < 5ft/sec
	KELP - Large, coarse, brown algae		SLASH, LARGE (SOUND) Residue 3-10" diam		WATER/AGRICULTURE- Interface
	LAKES - Permanent > 2ha (5 acres)		SLASH, SMALL Residue 1-3" diameter		WHARF

MINE - excavated for mine rails

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/18 Sample Crew: IC DL Plot Number: Unkn-61A Location: Quail Canal

Visual estimate before sampling; CWHR habitat type: Rubber rabbit prairie scrub (SG-B)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam above bulge)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub/tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0"	S	Sparse cover	10 0-24 9% Shrub, 2 0-9 9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub/tree	< 1 0% (None)	≥ 12 1"	1 5-19 9" (PO) 1 5-5 9" (JT)	2 0-9 9"	P	Open cover	25 0-39 9% Shrub, 10 0-39 9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub/tree	1 0-24 9%		≥ 20 0" (PO) ≥ 6 0" (JT)	10 0-19 9"	M	Mod cover	40 0-59 9% all types
4	Decadent shrub	≥ 25 0%			≥ 20 0"	D	Dense cover	≥ 60 0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines

Stem or Pt #	Species	Age	% Decadent	Ht (m/ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (m/ft)	hit or miss (+/-)
1					-	26-0					-
2					-	27					-
3					-	28					-
4	Browl	2y			+	29					-
5					-	30					-
6	Ernan	3	0 2	3ft	+	31					-
7	"				+	32					-
8	"	3	0	4.5ft	+	33					-
9	"	↓	↓	↓	+	34					-
10	"	↓	↓	↓	+	35					-
11	Ernan	3	7	5ft	+	36					-
12	↓	↓	↓	↓	+	37					-
13	↓	↓	↓	↓	+	38					-
14	Ernan	3	2	3ft	+	39					-
15	↓	↓	↓	↓	+	40					-
16	↓	↓	↓	↓	+	41					-
17	↓	↓	↓	↓	+	42					-
18	↓	↓	↓	↓	+	43					-
19	↓	↓	↓	↓	+	44					-
20	↓	↓	↓	↓	+	45					-
21					-	46					-
22					-	47					-
23	Ernan	3	7	5ft	+	48					-
24	↓	↓	↓	↓	+	49					-
25	↓	↓	↓	↓	+	50					-

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = \_\_\_ (# veg. hits/25 or 30) \* 100

19/26 = 73%

*Eriogon elongatum*  
*Heterotheca villosa* *echinabae* *graciliflora*  
*Ambrosia aranthifera*  
*Leptocarpus tenuiflorus*

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/11 Sample Crew: ICDL Plot Number: U-658 Location: Quail Canal

Visual estimate before sampling; CWHR habitat type: 65A (SGB)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5- 19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

**Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines**

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1					-	30					-
2	bromad				+	27	y				
3	erincv	4	4	36"	+	28	2				
4	↓	↓	↓	↓	↓	29	3				
5	↓	↓	↓	↓	↓	30	4				
6	↓	↓	↓	↓	↓	31	5				
7	erincv	3	3	38"	+	32	6				
8	↓	↓	↓	↓	↓	33	7				
9	↓	↓	↓	↓	↓	34	8				
10	↓	↓	↓	↓	↓	35	9				
11	↓	↓	↓	↓	↓	36	10				
12					-	37	11				
13					-	38	12				
14	erincv	4	4	18"		39	13				
15	bassec				-	40	14				
16	bassec				+	41	15				
17	erincv	4	4	34"	+	42	16				
18	↓	↓	↓	↓	↓	43	17				
19	↓	↓	↓	↓	↓	44	18				
20	↓	↓	↓	↓	↓	45	19				
21	bromad				+	46	20				
22	erincv	3	3	46"	+	47	21				
23	↓	↓	↓	↓	↓	48	22				
24	↓	↓	↓	↓	↓	49	23				
25	bromad				+	50	24				

**VEGETATION COVER MEASUREMENT**

21/26 = 81%

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =      (# veg. hits/25 or 30) \* 100

*Poa secunda*  
*Stipa arvensis*



**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/13 Sample Crew: JCPDL Plot Number: UMK 4085C Location: Quail Canal

Visual estimate before sampling; CWHR habitat type: RRS (SG-B)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. shot & bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12 0"	< 1 5"	< 2 0"	S	Sparse cover	10.0-24.9% Shrub; 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12 1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2 0'-9.9'	<u>D</u>	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
<u>3</u>	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6 0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	<i>eriger</i>	3	3	24"	+	26	<i>eriger</i>	3	3	24"	+
2	<i>sticer</i>				+	27					
3					-	28					
4					-	29					
5					-	30					
6					-	31					
7	<i>eriger</i>	3	3	25"	+	32					
8	↓	↓	↓	↓	↓	33					
9	↓	↓	↓	↓	↓	34					
10	<i>eriger</i>	3	4	50"	+	35					
11	↓	↓	↓	↓	↓	36					
12	↓	↓	↓	↓	↓	37					
13	↓	↓	↓	↓	↓	38					
14	<i>eriger</i>	4	4	36"	+	39					
15	↓	↓	↓	↓	↓	40					
16	↓	↓	↓	↓	↓	41					
17	↓	↓	↓	↓	↓	42					
18					-	43					
19	<i>eriger</i>	3	4	34"	+	44					
20	↓	↓	↓	↓	↓	45					
21	↓	↓	↓	↓	↓	46					
22	↓	↓	↓	↓	↓	47					
23	↓	↓	↓	↓	↓	48					
24					-	49					
25					-	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$\frac{19}{26} = 73\%$

*Corethrogyne filaginifolia*  
*Stephanomeria tenuis*

UNK 66 = AGS

CWHR HABITAT ELEMENT CHECK LIST

Indicate which elements are present inside (I) and/or nearby but outside (O) of the study area in sufficient quantity and quality to support presence of a particular wildlife species. You may exclude elements (E) that are absent from the study area if excluded elements number less than the elements that are present.

<input type="checkbox"/>	ACORNS - Fruit of an oak	<input type="checkbox"/>	LAYER, HERBACEOUS >10% herb understory	<input type="checkbox"/>	SNAG, LARGE (ROT TEN) >30" dbh
<input checked="" type="checkbox"/>	ALGAE - Any algae other than kelp	<input type="checkbox"/>	LAYER, SHRUB >10% shrub understory	<input type="checkbox"/>	SNAG, LARGE, (SOUND) >30" dbh
<input type="checkbox"/>	AMPHIBIANS - Frogs, Toads, etc.	<input type="checkbox"/>	LAYER, TREE >10% subcanopy trees	<input type="checkbox"/>	SNAG, MEDIUM (ROT TEN) 15-30" dbh
<input type="checkbox"/>	AQUATICS, EMERGENT	<input type="checkbox"/>	LICHENS	<input type="checkbox"/>	SNAG, MEDIUM (SOUND) 15-30" dbh
<input type="checkbox"/>	AQUATICS, SUBMERGED	<input type="checkbox"/>	LITHIC - Rock scatter <10" diam.	<input type="checkbox"/>	SNAG, SMALL (ROT TEN) <15" dbh
<input checked="" type="checkbox"/>	BANK - Cut, hollow or lake border	<input type="checkbox"/>	LITTER - Residue <1" indiam	<input type="checkbox"/>	SNAG, SMALL (SOUND) <15" dbh
<input type="checkbox"/>	BARREN - Devoid of veg within veg area	<input type="checkbox"/>	LOG, LARGE (HOLLOW) >20" diam	<input type="checkbox"/>	SOIL, AERATED - Well drained
<input type="checkbox"/>	BERRIES - Small, pulpy fruit	<input type="checkbox"/>	LOG, LARGE (ROTTEN) >20" diam	<input type="checkbox"/>	SOIL, FRIABLE - Easily crumbled
<input type="checkbox"/>	BIRDS, LARGE - > 450g (1lb)	<input type="checkbox"/>	LOG, LARGE (SOUND) >20" diam	<input type="checkbox"/>	SOIL, GRAVELLY - Gravel 3-3" diam
<input type="checkbox"/>	BIRDS, MED - 110-450g (4oz-1lb) 1b11111111	<input type="checkbox"/>	LOG, MEDIUM (HOLLOW) 10-20" diam	<input type="checkbox"/>	SOIL, ORGANIC - >20% organic matter (wght)
<input type="checkbox"/>	BIRDS, SMALL - < 110g (4oz)	<input type="checkbox"/>	LOG, MEDIUM (ROTTEN) 10-20" diam	<input type="checkbox"/>	SOIL, SALINE - Alkaline soils/veg
<input type="checkbox"/>	BOGS - Low-lying, residue rich areas	<input type="checkbox"/>	LOG, MEDIUM (SOUND) 10-20" diam	<input type="checkbox"/>	SOIL, SANDY - Sand 0.5-2mm diam
<input type="checkbox"/>	BRUSH PILE - >1m high, >=15m <sup>2</sup> basal area	<input type="checkbox"/>	MAMMALS, LARGE - > 2270g (5lb)	<input type="checkbox"/>	SPRINGS-Freshwater springs, seeps
<input type="checkbox"/>	BUILDINGS - Houses, sheds, etc.	<input type="checkbox"/>	MAMMALS, MED - 110-2270g (4oz-5lb)	<input type="checkbox"/>	SPRINGS, HOT
<input type="checkbox"/>	BURROW - Excavation made by animal	<input type="checkbox"/>	MAMMALS, SMALL - < 110g (4oz)	<input type="checkbox"/>	SPRINGS, MINERAL
<input type="checkbox"/>	CAMPGROUND	<input type="checkbox"/>	MOSS - Bryophytes	<input checked="" type="checkbox"/>	STEEP SLOPE-Slopes > 50%
<input type="checkbox"/>	CARRION - Any dead animal matter	<input type="checkbox"/>	MUD FLATS- contiguous with water body	<input type="checkbox"/>	STREAMS, INTERMITTENT
<input type="checkbox"/>	CAVE - Natural chamber open to surface	<input type="checkbox"/>	NECTAR	<input type="checkbox"/>	STREAMS, PERMANENT
<input type="checkbox"/>	CLIFF - Steep, vertical overhanging face	<input type="checkbox"/>	NEST BOX - Constructed nesting cavity	<input type="checkbox"/>	STUMP (ROTTEN)-snag<3m (10') high
<input type="checkbox"/>	CONES - From gymnosperm trees	<input type="checkbox"/>	NEST PLATFORM - Const. large platform	<input type="checkbox"/>	STUMP (SOUND)-snag<3m (10') high
<input type="checkbox"/>	DUFF - Non-structured decaying matter	<input type="checkbox"/>	NEST ISLAND - Man-made nesting island	<input type="checkbox"/>	TALUS-Slope from rock accumulation
<input type="checkbox"/>	DUMP - Sanitary landfill	<input type="checkbox"/>	NUTS - Hard-shelled, dry fruit	<input type="checkbox"/>	TIDEPOLS
<input type="checkbox"/>	EGGS - Any bird or reptile eggs	<input type="checkbox"/>	PACK STATION - with assoc. human use	<input checked="" type="checkbox"/>	TRANSMISSION LINES
<input checked="" type="checkbox"/>	FENCES - Any type	<input type="checkbox"/>	PONDS - Permanent, <2ha (5 acres) surf area	<input type="checkbox"/>	TREE LEAVES
<input type="checkbox"/>	FERN - Spore-forming plants with fronds	<input type="checkbox"/>	REPTILES	<input type="checkbox"/>	TREE, BROKEN LIVE TOP >11" dbh
<input checked="" type="checkbox"/>	FISH	<input type="checkbox"/>	RIPARIAN INCLUSION - Riparian veg. (small)	<input type="checkbox"/>	TREE, W/ CAVITIES
<input type="checkbox"/>	FLOWERS	<input checked="" type="checkbox"/>	RIVERS - Perm. >6m (20') wide in dry season	<input type="checkbox"/>	TREE, W/ LOOSE BARK
<input type="checkbox"/>	FORBS - Herbaceous dicotyledons	<input type="checkbox"/>	ROCK - Outcrop >10" diam	<input type="checkbox"/>	TREE/AGRICULTURE - Interface
<input type="checkbox"/>	FRUITS - Pulpy fruit	<input type="checkbox"/>	ROOTS	<input type="checkbox"/>	TREE/GRASS - Interface
<input type="checkbox"/>	FUNGI - Mushrooms, molds, etc.	<input type="checkbox"/>	SALT PONDS - Saline ponds	<input type="checkbox"/>	TREE SHRUB - Interface
<input type="checkbox"/>	GRAIN - A single, hard cereal seed	<input type="checkbox"/>	SAND DUNE	<input type="checkbox"/>	TREE/WATER - Interface
<input type="checkbox"/>	GRAMINOIDS - Grass-like plants	<input type="checkbox"/>	SAP	<input type="checkbox"/>	TREES, FIR - <i>Abies sp</i> >11" dbh
<input type="checkbox"/>	GRASS/AGRICULTURE - Interface	<input type="checkbox"/>	SEEDS - Other than listed above	<input type="checkbox"/>	TREES, HARDWOOD - >11" dbh
<input type="checkbox"/>	GRASS/WATER - Interface	<input type="checkbox"/>	SHRUB/AGRICULTURE- Interface	<input type="checkbox"/>	TREES, PINE - <i>Pinus sp</i> > 11" dbh
<input type="checkbox"/>	INSECTS, FLYING - Insect eaten in air	<input type="checkbox"/>	SHRUB GRASS - Interface	<input type="checkbox"/>	VERNAL POOLS
<input type="checkbox"/>	INSECTS, TERRESTRIAL	<input type="checkbox"/>	SHRUB/WATER - Interface	<input checked="" type="checkbox"/>	WATER - Any source of free water
<input type="checkbox"/>	INVERTEBRATES	<input type="checkbox"/>	SHRUBS - Woody plants, not trees	<input type="checkbox"/>	WATER, FAST - Unsilted, >2ft/sec flows
<input type="checkbox"/>	INVERTEBRATES, AQUATIC	<input type="checkbox"/>	SLASH, LARGE (ROTTEN) Residue 3-10" diam	<input checked="" type="checkbox"/>	WATER, CREATED BODY - Guzzler, well, etc.
<input type="checkbox"/>	JETTY - Rock/concrete extending into water	<input type="checkbox"/>	SLASH, LARGE (HOLLOW) Residue 3-10" diam	<input checked="" type="checkbox"/>	WATER, SLOW - Some silt; flows < .5ft/sec
<input type="checkbox"/>	KELP - Large, coarse, brown algae	<input type="checkbox"/>	SLASH, LARGE (SOUND) Residue 3-10" diam	<input type="checkbox"/>	WATER/AGRICULTURE- Interface
<input type="checkbox"/>	LAKES - Permanent >2ha (5 acres)	<input type="checkbox"/>	SLASH, SMALL Residue 1-3" diameter	<input type="checkbox"/>	WHARF

canal nearby

MINE - excavated for minerals

along canal  
road - disturbed

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET

Date: 10/2/18 Sample Crew: LD Plot Number: UNK66a Location: Quail - north along canal  
Visual estimate before sampling; CWHR habitat type: annual grassland (AGS)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bulge)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub; 20.0-99.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub; 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Med. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1					-	26					-
2	Poa	D	2	12	+	27					
3	Poa	D	1	8	+	28					
4	BRASSICA	D	2	19	+	29					
5	Poa	D	1	10	+	30					
6	Cryptantha	D	1	8	+	31					
7					-	32					
8	purple aster	M	2	31	+	33					
9	Erodium	D	1	1	+	34					
10	BRODIA	D	1	11	+	35					
11	ELYTRI	D	2	22	+	36					
12	ELYTRI	D	2	21	+	37					
13	BRODIA	D	1	2	+	38					
14	BRODIA	D	1	10	+	39					
15					-	40					
16	Poa	D	1	11	+	41					
17	Poa	D	1	11	+	42					
18	Amsinckia	D	2	20	+	43	Poa	D	1	10	+
19	↓				+	44	Poa	D	1	10	+
20	ELYTRI	D	2	20	+	45	Poa	D	1	10	+
21	ELYTRI	D	2	18	+	46	Poa	D	1	11	+
22	BRODIA	D	1	5	+	47					
23	Cryptantha	D	1	9	+	48	Poa	D	1	10	+
24	Poa	D	1	6	+	49					
25	Cryptantha	D	1	10	+	50	Poa	D	1	10	+

change all BRODIA to BROTEC

seep nearby → juncus balticus

VEGETATION COVER MEASUREMENT

some scattered rabbitbrush < 5%

Vegetation cover measured along line transect or point intercept with 25-30 readings  
Percent vegetation cover = (# veg. hits/25 or 30) \* 100

27/26 = 85%

see unk63 for similar animal species

- Brassica sp
- Lactuca scariola
- Bromus
- Poa secunda?
- Amsinckia tectorum

- Stephanomeria
- Lupinus sp.
- Cryptantha
- Amsinckia

- purple aster
- sunflower
- Croton setigerus

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/18 Sample Crew: LP Plot Number: WNK66b Location: Quail - north along can  
 Visual estimate before sampling; CWHR habitat type: AL annual grassland (AGS)

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht @ Maturity)	Palm Oasis & Joshua Tree (base diam. shoot height)	Desert Habitats (Plant Ht)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 20.0-99% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt #	Species	Age	% Decadent	Ht (in ft)	hit or miss (+/-)	Stem or Pt #	Species	Age	% Decadent	Ht (in ft)	hit or miss
1	BROMAD	D	1	7	+	26	BROMAD	D	1	5	+
2	bunchgrass	D	2	22	+	27					
3	BROMAD	D	1	6	+	28	Poa	D	1	9	+
4					-	29					
5	Poa	D	1	8	+	30	BROMAD	D	1	3	+
6	Poa	D	1	9	+	31					
7	purp aster	M	2	32	+	32					
8	Poa	D	1	9	+	33					
9					-	34					
10	BROMAD	D	1	2	+	35					
11	purp aster	M	2	20	+	36	bunchg	D	2	19	+
12	bunch	D	2	20	+	37					
13	BRODIA	D	1	2	+	38					
14	Poa	D	1	6	+	39					
15	purp aster	M	2	27	+	40	BRODIA	D	1	3	+
16	ELYTRI	D	2	15	+	41	BRODIA	D	1	3	+
17	Poa	D	1	8	+	42					
18	Poa	D	1	7	+	43					
19	BROMAD	D	1	6	+	44					
20	Poa	D	1	8	+	45					
21	BRASSICA	D	2	38	+	46					
22	↓				+	47	Poa	D	2	12	+
23					-	48					
24					-	49					
25	purp aster	M	2	19	+	50	BROMAD	D	1	4	+

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings

Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

$\frac{23}{26} = 88\%$

Same species as (a)

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM  
NON-WOODED HABITAT SAMPLING DATASHEET**

Date: 10/2/18 Sample Crew: LP Plot Number: UN166 C Location: Quail - north along  
AL  
 Visual estimate before sampling; CWHR habitat type: annual grassland (AGS) <sup>annual</sup>

Standards For Size Classes						Standards For Canopy Closure		
CWHR Class	WHR Size Classes	Shrub Habitats (% Crown Decadence)	Herb. Habitats (Plant Ht. @ Maturity)	Palm Oasis & Joshua Tree (base diam. above bud)	Desert Habitats (Plant Ht.)	CWHR Class	WHR Closure Class	Ground Cover (Canopy Closure)
1	Seedling shrub tree Short herb Seedling tree	Seedlings or sprouts < 3 yrs old	≤ 12.0"	< 1.5"	< 2.0'	S	Sparse cover	10.0-24.9% Shrub, 2.0-9.9% Herb, Palm Oasis, Joshua Tree, & Desert types
2	Young shrub Tall herb Small shrub tree	< 1.0% (None)	≥ 12.1"	1.5-19.9" (PO) 1.5-5.9" (JT)	2.0'-9.9'	P	Open cover	25.0-39.9% Shrub, 10.0-39.9% Herb, Palm Oasis, Joshua Tree, & Desert types
3	Mature shrub Large shrub tree	1.0-24.9%		≥ 20.0" (PO) ≥ 6.0" (JT)	10.0'-19.9'	M	Mod. cover	40.0-59.9% all types
4	Decadent shrub	≥ 25.0%			≥ 20.0'	D	Dense cover	≥ 60.0% all types

Species, age, % decadence, height, and/or veg. canopy hits (+) or misses (-) from plots, grids or lines.

Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss (+/-)	Stem or Pt. #	Species	Age	% Decadent	Ht. (in ft)	hit or miss
1	BROMAD	D	1	2	+	20	BROMAD	D	1	3	+
2	Poa	D	1	9	+	25	BROMAD	D	1	4	+
3	telegraph	M	2	16	+	26	Poa	D	1	3	+
4	BROMAD	D	1	2	+	29					
5	BROMAD	D	1	4	+	30					
6	Poa	D	1	11	+	31	Erodium	D	1	2	+
7					-	32					
8	BROMAD	D	1	1	+	33					
9	telegraph	M	2	19	+	34					
10	BROMAD	D	1	4	+	35					
11	Acmispon	M	1	7	+	36					
12	Acmispon	M	1	9	+	37					
13	BROMAD	D	1	2	+	38					
14	BROMAD	D	1	2	+	39					
15	Acmispon	M	1	3	+	40					
16	BROMAD	D	1	2	+	41					
17	Poa	D	1	6	+	42					
18	BROMAD	D	1	2	+	43					
19	BROMAD	D	1	2	+	44					
20	BROMAD	D	1	2	+	45					
21	BROMAD	D	1	3	+	46					
22	Poa	D	1	8	+	47					
23	Poa	D	1	10	+	48					
24	BROMAD	D	1	2	+	49					
25	Erodium	D	1	1	+	50					

**VEGETATION COVER MEASUREMENT**

Vegetation cover measured along line transect or point intercept with 25-30 readings  
 Percent vegetation cover =  $\frac{\text{\# veg. hits}}{25 \text{ or } 30} * 100$

same species as others

\* bunchgrass = *Stipa cernua*  
 purple aster  
*Corchoroglyne phil...*

+ telegraph weed  
 = *Acmispon*