

ATTACHMENT P-4

BIRD DATA

2000 & 2001 SPRING SURVEYS

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Results of Bird Point Count Surveys

Date: 20 March 2001 Weather: high overcast; 5-10 mph gusting W wind; air temperatures 55-60 F

Species	Point 1 (0800-0815)	Point 2 (0845-0900)	Point 3 (0915-0930)	Point E (1000-1015)	Point 5 (1100-1115)	Point 7 (1130-1145)
Western meadowlark	X	X	X	X	X	X
Barn swallow	X	X	X	--	--	--
Tree swallow	X	X	X	X	X	X
Red-winged blackbird	X	X	X	X	--	--
Brown-headed cowbird	X	X	X	--	--	--
Western bluebird	--	--	--	X	--	--
Song sparrow	X	X	X	X	X	X
Savannah sparrow	X	X	X	X	X	X
White-crowned sparrow	X	X	X	X	X	X
Golden-crowned sparrow	--	--	--	X	X	X
Brewer's blackbird	X	X	X	--	--	--
Mallard	X	X	X	--	--	--

Ruddy duck	X	X	X	X	X	X	-	-	-	-
Eared grebe	X	X								-
Killdeer	X	X	X	X	X	X	-	-	-	-
House finch	X	X	X	X	X	X	X	X	X	X
European starling	X	X	X	X	X	X	X	X	X	-
Black phoebe	-									-
American coot	X	X	X	X	X	X	-	-	-	-
California quail	X	X	X	X	X	X	-	-	-	-
Mourning dove	X	X	X	X	X	X	-	-	X	X
Northern flicker	-									-
California towhee	-								X	X
Spotted towhee	-								X	X
Violet-green swallow	X	X	X	X	X	X	-	-	-	-
Barn swallow	X	X	X	X	X	X	-	-	-	-
Tree swallow	X	X	X	X	X	X	X	X	X	X
American goldfinch	X	X	X	X	X	X	X	X	-	-
American pipit	X	X	X	X	X	X	-	-	-	-

Great horned owl	--	--	--	X, pair	--	--
Turkey vulture	X	X	X	X	X	X
Red-tailed hawk	X	X	X	X, nest	X	X
American kestrel	X	X	X	X	X	X

Point Count Locations:

- (A) Slopes W of PCB Landfill
- (E) Eucalyptus grove 500 ft. N landfill boundary
- (1) SE end of RCF Pond on Road
- (2) W end of RCF Pond and Pond 13
- (3) SE end of A-Series Pond on Road
- (4) Casimilia Creek riparian corridor and grassland approx. 300 ft N corral
- (5) Road N of Pesticides/Solvents Landfill
- (6) Road N of Metals Landfill, incl. overlook for eucalyptus grove in valley N of landfill boundary
- (7) Road on NW edge of Acids Landfill
- (8) East-facing slope west of Pond A-5
- (9) Flats south of toe of Pesticides/Solvents Landfill

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Results of Bird Point Count Surveys

Date: 20 April 2001 Weather: overcast; 5-10 mph gusting SW wind; misting rain developing in early afternoon; air temperatures 55-60 F

Species	Point 1 (0835-0850)	Point 2 (0900-0915)	Point 3 (0925-0940)	Point 4 (1030-1045)	Point A (1100-1130)	Point 5 (1300-1315)	Point 7 (1415-1430)
Western meadowlark	4	5	5	3	2	2	--
Blue grosbeak	--	--	--	--	pair	1	--
Lazuli bunting	--	--	--	--	1	1	--
Barn swallow	4	--	2	--	--	--	--
Cliff swallow	6	--	--	--	--	--	--
Tree swallow	3	--	--	--	--	--	--
Red-winged blackbird	12, incl. 5 pairs	10	4	2	5	--	several heard
Brown-headed cowbird	1	--	--	--	--	--	--
Western bluebird	--	--	--	pair	--	--	--
Song sparrow	pair, nesting	2	3	--	2	1	--
Savannah sparrow	--	3; 3 new nests, 4 old nests in coyote brush	--	1	1	5	--
White-crowned sparrow	--	--	--	--	3	--	--

Gadwall	5		2		--		--		--		--		--
Common yellowthroat	1		2		3		--	1	--		--		--
Brewer's blackbird	--		6, incl. 2 w/food		3		--	--	--		--		--
Mallard	2		2		3		--	--	--		--		--
Ruddy duck	1		5		2		--	--	--		--		--
Eared grebe	--		4		2		--	--	--		--		--
Killdeer	1		1		2, very defensive		1, defensive	--	--		--		--
House finch	7		--		--		1, courtship flight	--	5+		--		--
Lesser goldfinch	--		--		--		--	2	--		--		--
European starling	--		--		2, nesting		--	--	--		--		--
Black phoebe	--		--		--		2, nesting	--	--		--		--
American coot	--		--		3		--	--	--		--		--
California quail	6		3		--		--	2	--		--		--
Mourning dove	--		--		1		--	--	--		--		--
Bushtit	--		--		--		pair, nesting	2	--		--		--
Yellow-rumped warbler	--		--		--		2	--	--		--		--

Northern flicker	--			1	--	--	--	--	--	--	--
California towhee	--	1		1	--	--	1	--	--	--	--
Vaux's swift	--	--		--	--	--	--	--	2	--	--
Barn swallow	25 +	20 +		--	10 +		--	--	--	--	--
Cliff swallow	15 +	50 +		30 +	10 +		--	--	--	--	--
Tree swallow	3	5		--	8		--	25 +	--	--	--
Bewick's wren	--	--		--	2		--	--	--	--	--
Yellow-billed magpie	--	--		--	2 in scattered oaks west of Casmalia Creek		--	--	--	--	--
Western scrub jay	--	--		--	3		--	--	--	--	--
Nuttall's woodpecker	--	--		--	2		--	--	--	--	--
Oak titmouse	--	--		--	1		--	--	--	--	--
Turkey vulture	--	--		--	--		1	--	--	--	--
Red-tailed hawk	--	1		--	--		--	--	--	--	--
American kestrel	pair	--		--	--		--	--	--	--	--
Western kingbird	--	--		--	--		--	12	--	--	--

Point Count Locations:

- (A) Slopes W of PCB Landfill
- (E) Eucalyptus grove 500 ft N landfill boundary
- (1) SE end of RCF Pond on Road
- (2) W end of RCF Pond and Pond 13
- (3) SE end of A-Series Pond on Road
- (4) Casmalia Creek riparian corridor and grassland approx. 300 ft N corral
- (5) Road N of Pesticides/Solvents Landfill
- (6) Road N of Metals Landfill, incl. overlook for eucalyptus grove in valley N of landfill boundary
- (7) Road on NW edge of Acids Landfill
- (8) East-facing slope west of Pond A-5
- (9) Flats south of toe of Pesticides/Solvents Landfill

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Results of Bird Point Count Surveys

Date: 11 May 2001 Weather: Overcast (fog); no wind, clearing by late morning; air temperatures 55-60 F

Species	Point 1 (0800-0815)	Point 2 (0830-0845)	Point 3 (0900-0915)	Point 4 (0935-0950)	Point 5 (1020-1035)	Point 6 (1100-1115)	Point 7 (1300-1315)
Western meadowlark	3	--	--	6-8	2	2	3
Blue grosbeak	pair	1	2	1	--	--	--
Barn swallow	pair	4	--	--	--	--	--
Cliff swallow	50+	--	5	--	--	--	--
Tree swallow	--	--	--	--	5	--	--
Red-winged blackbird	5+	17, incl. 2 pairs	6+ pairs	17	1	--	2
Song sparrow	pair	2	2 males	2	1	3	1
Gadwall	pair on RCF Pond	1	pair	--	--	--	--
Common yellowthroat	2	1	4 males	2	--	--	--
Bewick's wren	2	1	3	--	--	--	--

Brewer's blackbird	--	6 nests in coyote brush; 1 tipped nest w/3 eggs (2 on ground); 1 nest with 5 chicks @ 4 days old; 1 nest with 1 egg; 2 nests w/4 eggs; 1 nest empty	3	--	--	--	--	--	--
Mallard	--	pair in Pond 13; 2 pairs in RCF Pond	2 pairs	--	--	--	--	--	--
Ruddy duck	--	pair in RCF Pond	1 male	--	--	--	--	--	--
Whimbrel	--	1 along shore of RCF Pond	--	--	--	--	--	--	--
Killdeer	--	5 heard	1 - defensive behavior	--	--	--	--	--	--
House finch	--	5 + heard	--	--	50 +	10 +	10 +	10 +	--
European starling	--	--	5 + pairs	--	50 +	3, including juveniles in willows	--	--	--
Black phoebe	--	--	2 pairs, incl. nest at corral	--	--	--	--	--	--
American coot	--	--	1	--	--	--	--	--	--
California quail	--	--	1 pair	2	--	--	--	--	--
Mourning dove	--	--	several calling; 2 on road	10	5	--	--	--	--

Oak titmouse	--	--	--	--	1 in willows near oaks	--	--	--	--
Bushtit	--	--	--	--	2, plus nest	--	--	--	--
Western scrub jay	--	--	--	--	1	--	--	--	--
Nuttall's woodpecker	--	--	--	--	1 male in oak	--	--	--	--
Northern flicker	--	--	--	--	2 in willows	--	--	--	--
Ash-throated flycatcher	--	--	--	--	2 in vic. willows	--	--	--	--
California thrasher	--	--	--	--	1	--	--	--	--
Swainson's thrush	--	--	--	--	1 in willows	--	--	--	--
Northern mockingbird	--	--	--	--	1 at corral	--	--	--	--
Yellow-billed magpie	--	--	--	--	3 foraging in scattered oaks on slope west of Casmalia Creek	--	--	--	--
Turkey vulture	--	--	--	--	5	--	1	--	--
Red-tailed hawk	--	--	--	--	--	1	--	--	--
Western kingbird	--	--	--	--	--	pair in eucalyptus grove	--	--	--
Anna's hummingbird	--	--	--	--	--	1	1 male	--	--

Bullock's oriole	--	--	--	--	--	1	--	--
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Point Count Locations:

- (1) SE end of RCF Pond on Road;
- (2) W end of RCF Pond and Pond 13;
- (3) SE end of A-Series Pond on Road;
- (4) Casmalia Creek riparian corridor and grassland approx. 300 ft N corral;
- (5) Road N of Pesticides/Solvents Landfill;
- (6) Road N of Metals Landfill overlooking eucalyptus grove in valley to north;
- (7) Road on NW edge of Acids Landfill.

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Results of Bird Point Count Surveys

Date: 25 May 2001 Weather: Overcast (fog); slight wind, clearing by noon; air temperatures 60-70 F

Species	Point 1 (1600-1615)	Point 2 (1330-1345)	Point 3 (1230-1245)	Point A (1115-1130)	Point E (1030-1100)	Point 5 (1000-1015)	Point 6 (0915-0930)	Point 7 (0835-0850)
Western meadowlark	--	2	8	2	--	2	3, incl. pair	4, incl. pair
Blue grosbeak	--	1	3	5 (3 males, 2 females, 1 pair)	--	--	--	--
Barn swallow	--	many	--	--	--	--	--	--
Cliff swallow	--	many	--	--	--	--	2	--
Tree swallow	--	--	--	--	12 pairs, nesting	--	--	--
Red-winged blackbird	--	5	7	2	2	6, incl. 2 pairs	2	12, incl. pairs
Song sparrow	--	2	2	3	--	--	--	3, incl. pair
Grasshopper sparrow	--	--	--	--	--	--	1 male calling from fence	--
Gadwall	5 (2 males; 3 females)	pair	pair	--	--	--	--	--
Common yellowthroat	--	--	--	--	--	--	--	--
Bewick's wren	--	--	--	--	3, nesting, incl. begging juvenile	--	--	--
House wren	--	--	--	--	4, nesting	--	--	--

Brewer's blackbird	--			1	--		3, nesting	--	1	--
Mallard	--		pair	3	--		--	--	--	--
Ruddy duck	--		--	--	--		--	--	--	--
Whimbrel	--		--	--	--		--	--	--	--
Killdeer	1		several	2; 1 very defensive, scrape found, no eggs	--		--	--	--	--
House finch	--		--	--	--		15+, nesting	--	pair	2
Lesser goldfinch	--		--	--	--		6, incl. juveniles	--	--	--
European starling	--		--	2	--		100+-10, nesting	--	--	--
Black phoebe	--		--	2	--		1	--	--	1
American coot	--		--	1	--		--	--	--	--
California quail	--		--	1	--	3, incl. pair	2	--	--	--
Mourning dove	--		--	--	--		3, nesting	--	--	--
Oak titmouse	--		--	--	--	2-3 heard	--	--	--	--
Bushtit	--		--	--	--		--	--	--	--
Western scrub jay	--		--	--	--		--	--	--	--
Nuttall's woodpecker	--		--	--	--		1 female	--	--	--

Point Count Locations:

- (A) Slopes W of PCB Landfill
- (E) Eucalyptus grove 500 ft N landfill boundary
- (1) SE end of RCF Pond on Road
- (2) W end of RCF Pond and Pond 13
- (3) SE end of A-Series Pond on Road
- (4) Casmlia Creek riparian corridor and grassland approx. 300 ft N corral
- (5) Road N of Pesticides/Solvents Landfill
- (6) Road N of Metals Landfill, incl. overlook for eucalyptus grove in valley N of landfill boundary
- (7) Road on NW edge of Acids Landfill
- (8) East-facing slope west of Pond A-5
- (9) Flats south of toe of Pesticides/Solvents Landfill

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Additional Bird Sightings

Date: 27 April 2000 Time: 0900-1300 hrs

Weather: Partly cloudy, with 5-10 mph SW wind; air temperature 65-72 F

The following species were observed in the RCF Pond, A-Series Pond, and Pond 13:

Sora - 2 May 2001, NE corner of A-Series Pond
Eared grebe
Pied-billed grebe
Ruddy duck
Mallard
Gadwall
Greater scaup (female)
American coot
Killdeer
Barn owl, nesting in culvert pipes at Pond 18 and RCF Pond

The following species were observed within the Casmalia Creek riparian corridor between the landfill and the confluence with Shuman Canyon Creek, and/or in the adjacent grassland extending outward approximately 500-1,000 feet E and W of the riparian corridor:

Whimbrel	Western scrub jay
Long-billed curlew	American robin
Spotted sandpiper	Horned lark
Mourning dove	Audubon warbler
Red-tailed hawk	Myrtle warbler
Golden eagle	Common yellowthroat
American kestrel	Wilson's warbler
Turkey vulture	European starling
Western screech owl	Western meadowlark
Anna's hummingbird	Black-headed grosbeak
Cassin's kingbird	California towhee
Western kingbird	Bullock's oriole
Black phoebe	Brewer's blackbird
Cliff swallow	Violet-green swallow
Bushtit	Red-winged blackbird
Oak titmouse	House finch
House wren	Lesser goldfinch
Bewick's wren	Song sparrow

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Additional Bird Sightings

Date: 24 April 2001 Time: 0830-1205 hrs

Weather: clear, slight SW breeze; air temperature = 70 F at 1000 hrs

Eared grebe	4 observed in RCF and A-Series Ponds
American coot	7 observed in RCF and A-Series Pond (*)
Sora	1 bird flushed from sedge clumps at shoreline along west end of RCF Pond
Ruddy duck	10+ observed in RCF and A-Series Ponds
Mallard	20+ observed in RCF Pond, A-Series Pond, Pond A-5, and Pond 13 (*)
Turkey vulture	4 observed foraging over landfills
Osprey	1 bird observed flying over RCF Pond
Red-tailed hawk	2 observed foraging over landfills
Great horned owl	Pair of birds flushed from perch in steep west-facing slope in ravine north of Pond A-5 (*)
Tree swallow	50+ observed flying over surface runoff ponds and eucalyptus grove N of landfill boundary (*)
Barn swallow	50+ observed flying over surface runoff ponds and on landfill slopes (*)
Western scrub jay	2 birds observed flying over landfills (*)
Western kingbird	6+ observed on landfill slopes (*)
Western tanager	1 male observed in flight at southern toe of Metals Landfill; pair observed in eucalyptus grove N of landfill boundary, with male singing from perch at top of eucalyptus snag (*)
Grasshopper sparrow	Two birds observed in grass/weeds on slopes between Caustic/Cyanide Landfill and Acids Landfill
Savannah sparrow	10+ observed in northern portions of landfills and in grassland along N boundary fence line (*)
Western meadowlark	35+ observed throughout grass/weed slopes on various landfills (*)
Red-winged blackbird	15+ observed around margins of surface runoff ponds (*)
House finch	25+ observed throughout landfill (*)
Blue grosbeak	pair observed at several locations on weedy slopes west of PCB Landfill (*)

[(*) refers to known or probable breeders within the boundaries of the landfill]

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Additional Bird Sightings (continued)

Date: 4 May 2001 Time: 1115-1315 hrs

Weather: clear; slight SW breeze; air = 76-79 F
Eucalyptus grove and grasslands N of landfill and grasslands between Casmalia Creek and landfill:

Turkey vulture	2 birds foraging over grassland N of landfill; 2 birds W of landfill
Red-shouldered hawk	1 bird in eucalyptus grove
American kestrel	1 bird at corrals near Casmalia Creek W of landfill
Golden eagle	1 bird foraging over grassland N of landfill
Mourning dove	11 birds on dirt access roads N of landfill; 13 birds W of landfill
Cliff swallow	12 birds foraging over grassland N of landfill
Tree swallow	8 birds nesting in eucalyptus grove
Anna's hummingbird	5 birds nesting in eucalyptus grove
Northern flicker	1 bird at corral near Casmalia Creek W of landfill
Nuttall's woodpecker	2 birds in eucalyptus grove
Acorn woodpecker	2 birds in eucalyptus grove
Downy woodpecker	1 bird in eucalyptus grove
Cassin's kingbird	4 birds nesting in eucalyptus grove
Black phoebe	2 birds in eucalyptus grove; 1 nesting near corrals
House wren	2 birds nesting in eucalyptus grove
California towhee	3 birds nesting in eucalyptus grove
European starling	15 birds nesting in eucalyptus grove
Western meadowlark	2 birds in grassland N of landfill; 3 birds W of landfill
Red-winged blackbird	10 birds in grassland N of landfill; 9 birds W of landfill
Brewer's blackbird	15 birds in eucalyptus grove, some nesting; 5 birds W of landfill
Bullock's oriole	1 bird in eucalyptus grove
Brown-headed cowbird	1 bird in eucalyptus grove
House finch	30+ birds nesting in eucalyptus grove

Date: 5 July 2001 Time: 1350-1550 hrs

Weather: overcast due to monsoonal flow from south, humid; 5-10 mph SE wind; air = 76 F at 1350 hrs

Mallard	6 females, 1 w/four young, observed in RCF Pond
Ruddy duck	1 female observed in RCF Pond
Turkey vulture	2 birds observed foraging over Metals Landfill
Mourning dove	2 birds observed on dirt roads around A-Series Pond
Cliff swallows	50+ birds (adults and recently fledged young) observed flying around Control Building and Scale House near landfill entrance gate
Loggerhead shrike	1 bird observed on power line along main access road N between Pond 13 and RCF Pond
Western meadowlark	1 bird observed on power line near RCF Pond
Brewer's blackbird	40+ birds observed around margins of surface runoff ponds
Blue grosbeak	1 adult male singing from top of weeds along N fence line N of Metals Landfill
House finch	30+ individuals foraging over northern portions of landfills and around weedy margins of surface runoff ponds

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Additional Bird Sightings (continued)

Date: 11 July 2001 **Time:** 0815-0930 hrs

Weather: clear, slight W breeze, air temperature = 58 F at 0815 hrs

Blue grosbeak	2 adult males calling from fenceline in NW corner of landfill; 1 male and 1 female seen in mustard on slopes west of PCB Landfill
Mallard	14 females, 1 with 5 young
unid. <i>Calidris</i> sandpiper	W shoreline of RCF Pond
Greater yellowlegs	2 birds foraging along W shoreline of RCF Pond
Brewer's blackbird	10 individuals foraging around surface runoff ponds
Western kingbird	1 male observed around Treatment Building
House finch	20+ birds observed in eucalyptus grove N of landfill
Turkey vulture	2 birds foraging over grassland N of landfill
Western meadowlark	4 birds singing from perches on Metals Landfill
Cliff swallow	dozens of birds flying around Control Building; 1 bird DOR on access road between RCF Pond and Pond 18

Date: 11 July 2001 **Time:** 0815-0930 hrs

Weather: clear, slight W breeze, air temperature = 58 F at 0815 hrs

Blue grosbeak	1 male observed calling from top of weeds and fenceline along N boundary of landfill, NW of Metals Landfill; 1 male observed flying around coastal sage scrub E of Caustics/Cyanide Landfill
Cliff swallow	75+ nesting beneath eaves around Control Building and Scale House at entrance to landfill; nest with 5 young built above interior doorway in Treatment Building

**Casmalia Hazardous Waste Management Facility
Biological Surveys for Remedial Investigation/Feasibility Study**

Additional Bird Sightings (continued)

Date: 16-24 July 2001 Time: 0730-1700 hrs

Weather: overcast, with dense fog in morning, clearing in late morning to early afternoon, slight to gusting W winds, air temperatures between 55 and 70F

Killdeer	Several birds seen foraging on slopes of various landfills
Red-tailed hawk	1 bird foraging over Caustics/Cyanide Landfill
Northern harrier	1 bird repeatedly observed foraging over slopes of Metals and Caustic/Cyanide Landfills
California quail	Adults and young observed between Metals and Caustics/Cyanide Landfills
Cliff swallow	Dozens of birds observed flying over Metals and Caustics/Cyanide Landfills
Northern mockingbird	2 individuals observed foraging on Metals Landfill
Mourning dove	Several pairs of birds observed foraging on slopes of Caustics/Cyanide Landfills
Black phoebe	Several birds foraging on slopes of Metals and Caustic/Cyanide Landfills
Spotted towhee	2 males observed foraging on lower slopes of Metals Landfill
California towhee	Three nests with eggs found in coyote brush on slopes of Caustics/Cyanide Landfill and Metals Landfill prior to vegetation removal for cap construction (one nest crushed; two nests with eggs collected and deposited in Santa Barbara Museum of Natural History collections)
White-crowned sparrow	2 birds observed foraging on slopes of Caustics/Cyanide Landfill
Lark sparrow	Several birds observed on slopes of Metals and Caustics/Cyanide Landfills
Grasshopper sparrow	Adults and recently fledged young observed in grassland north of access road N of Pesticides/Solvents and Metals Landfills; several nests found in grassland between access road and N fenceline in May/June 2001
Brewer's blackbird	Dozens of birds observed foraging over northern portions of landfills
Western meadowlark	Dozens of birds observed throughout landfill areas
Blue grosbeak	2 males observed in weedy slopes on Metals and Caustics/Cyanide Landfills

2001 FALL SURVEY

Casmalia Waste Management Facility
Biological Species and Habitat Survey Fall 2001 Bird Surveys
Table C

CASMALIA SITE FALL 2001 BIRD SURVEYS

Date: November 21, 2001

Surveyors: Jim Greaves, Bill Goggin

Weather: Calm, 58F, 50% Cloud cover

Species	Pt. 1 (0745-0755)	Pt. 2 (0805-0815)	Pt. 3 (0825-0835)	Pt. 8 (0845-0855)	Pt. A (0931-0941)	Pt. 9 (0952-1002)	Pt. 7 (1029-1039)	Pt. 6 Eucalyptus Grove (1046-1116)	Pt. 4 Casmalia Creek (1145-1212)
Red-winged blackbird	1			32	15	16			
White-crowned sparrow	10			16	12	2	4	5	
Western meadowlark	3	1	3	2	10	1	1	40	3
Black phoebe	1	1	4	1	1	1		1	2
House finch	3			20	6			5	
Common yellowthroat	2								
Savannah sparrow	16	3	4		4	3	6		3
Song sparrow	1								
Ruddy duck	5	8	14						
Bushtit		5							
House wren		1							
Mallard		6	14						
Lincolns sparrow		1		2					
Tree swallow		2							
Yellow-rumped warbler		4	1	3	5		2		
American coot		1	25						
Say's phoebe			2				1	1	
Least sandpiper		1	27						
Blue-gray gnatcatcher			1			1			
European starling			5					3	
Northern harrier			1						
Long-billed dowitcher			6						
Green-winged teal			13						
Gadwall			7						
American pipit			1	2	1				
Bewicks wren			3			1			

Casmalia Waste Management Facility
Biological Species and Habitat Survey Fall 2001 Bird Surveys

Table C

CASMALIA SITE FALL 2001 BIRD SURVEYS

Date: November 21, 2001

Surveyors: Jim Greaves, Bill Goggin

Weather: Calm, 58F, 50% Cloud cover

Species	Pt. 1 (0745-0755)	Pt. 2 (0805-0815)	Pt. 3 (0825-0835)	Pt. 8 (0845-0855)	Pt. A (0931-0941)	Pt. 9 (0952-1002)	Pt. 7 (1029-1039)	Pt. 6 Eucalyptus Grove (1046-1116)	Pt. 4 Casmalia Creek (1145-1212)
Lesser goldfinch		11	4						
Spotted towhee			2						
California towhee						1			
Golden-crowned sparrow			2						
California quail			24						
American kestrel			1		2			1	1
Cooper's hawk			1						
Nuttall's woodpecker			1						1
Brewer's blackbird			22			7			
Plain titmouse	2		4						
Great-horned owl								1	
Yellow-billed magpie									1
Western scrub jay									1
Common raven									1
Mourning dove								10	15
Anna's hummingbird						1			
Northern flicker								1	
Red-tailed hawk								1	2

Casmalia Waste Management Facility
Biological Species and Habitat Survey Fall 2001 Bird Surveys
Table C

CASMALIA SITE FALL 2001 BIRD SURVEYS
 Date: November 30, 2001
 Surveyors: Jim Greaves, Bill Goggin, Alan Bate
 Weather: Calm, 45F, Clear

Species	Pt. 4 Casmalia Creek (0820-0910)	Pt. 3 (0920-0930)	Pt. 8 (0945-0955)	Pt. 9 (1025-1035)	Pt. A (1104-1114)	Pt. 6 Eucalyptus Grove (1124-1200)	Pt. 7 (1208-1218)	Pt. 2 (1235-1245)	Pt. 1 (1255-1305)
Red-winged blackbird	1			4	12				
White-crowned sparrow	3	16	7		3	3		2	12
Western meadowlark	6	5	2		5			3	1
Black phoebe	2	1	2	2	2	2		1	2
House finch	6	1	3			2		2	
Common yellowthroat		3	2	3					2
Savannah sparrow		2	10	10	1		1		
Song sparrow				2	1			2	6
Ruddy duck								6	7
Bushtit	7								
Mallard								12	10
Lincolns sparrow									
Tree swallow									
Yellow-rumped warbler	2	5	3				1	6	
American coot		6							2
Say's phoebe									
Least sandpiper		18						12	28
Blue-gray gnatcatcher	2	1	2	1				2	
European starling	22								7
Northern harrier							1		
Green-winged teal		2						11	
Gadwall									
American pipit		1		1				2	
Bewicks wren	2		1	1	1			1	
Lesser goldfinch						6		2	4
Spotted towhee					1				
California towhee						1			

Casmalia Waste Management Facility
Biological Species and Habitat Survey Fall 2001 Bird Surveys
Table C

CASMALIA SITE FALL 2001 BIRD SURVEYS

Date: November 30, 2001

Surveyors: Jim Greaves, Bill Goggin, Alan Bate

Weather: Calm, 45F, Clear

Species	Pt. 4 Casmalia Creek (0820-0910)	Pt. 3 (0920-0930)	Pt. 8 (0945-0955)	Pt. 9 (1025-1035)	Pt. A (1104-1114)	Pt. 6 Eucalyptus Grove (1124-1200)	Pt. 7 (1208-1218)	Pt. 2 (1235-1245)	Pt. 1 (1255-1305)
G.C. sparrow									
Oregon junco						2			
California quail						10			
American kestrel	2								
Cooper's hawk	1			1					
Nuttall's woodpecker	1	1	1	1					
Brewer's blackbird	1				3	1		1	
Great-horned owl									
Yellow-billed magpie	3					1			
Western scrub jay	2								
Common raven									
Mourning dove	20								
Anna's hummingbird					4	8			
Northern flicker	1			1		2			
Red-tailed hawk						1			
Hutton's vireo	2				1	1			
Oak titmouse	2								
Prairie warbler*	1			1					
Ruby-crowned kinglet	6								
Loggerhead shrike	1	1							
Killdeer	2								
Long-billed curlew									
Cassin's kingbird									
Hooded merganser						1			
Eared grebe								2	2

*Locally uncommon species

2002 SURVEYS

Table C
Casmalia Waste Management Facility
Biological Species and Habitat Survey
Spring 2002 Bird Surveys

Date: March 15, 2002
Surveyors: Bill Goggin, Jim Greves
Weather: Clr, light wind, 57 F

Species	Pt. 4 Casmalia Creek (0800-0815)	Pt. 6 Eucalyptus Grove (0830-0845)	Pt. A (0915-0930)	Pt. 9 (1124-1135)	Pt. 8 (1235-1245)	Pt. 3 (1300-1315)	Pt. 2 (1324-1344)	Pt. 1 (1345-1355)
White-crowned sparrow				3	6			
Western meadowlark	5	1		5	3		4	12
Black phoebe				2	1	1		
House finch				2	2		3	
Savannah sparrow			2	1				
Song sparrow					2			
Ruddy duck					6	7		
Mallard						11	3	7
Yellow-rumped warbler		1		1	6		1	
Least sandpiper					12	14		7
Blue-gray gnatcatcher					1		1	
Bushtit	1		1		1			
Northern harrier				1				
Green-winged teal					2	1		
American pipit								11
MacGillivray's warbler							1	
Bewicks wren			1					2
Lesser goldfinch	1	1		6	2			1
Spotted towhee								2
G.C. sparrow				2			1	1
Oregon junco				10				
Nuttall's woodpecker	3			1	1			20

Table C
Casmalia Waste Management Facility
Biological Species and Habitat Survey
Spring 2002 Bird Surveys

Date: March 15, 2002
Surveyors: Bill Goggin, Jim Greves
Weather: Clr, light wind, 57 F

Species	Pt. 4 Casmalia Creek (0800-0815)	Pt. 6 Eucalyptus Grove (0830-0845)	Pt. A (0915-0930)	Pt. 9 (1124-1135)	Pt. 8 (1235-1245)	Pt. 3 (1300-1315)	Pt. 2 (1324-1344)	Pt. 1 (1345-1355)
American kestrel			1					1
Great-horned owl		2						
Barn owl		1						
Mourning dove				5				
Anna's hummingbird	2			2				1
Northern flicker		1						
Red-tailed hawk		2	1	1				
Killdeer	2				2			
Eared grebe						1		
Black-capped chickadee	1							
American coot						1	1	
Magpie	2							
European starling	12					45		

*Locally uncommon species

Table C
Casmalia Waste Management Facility
Biological Species and Habitat Survey
Fall 2002 Bird Surveys

Date: September 24, 2002

Surveyors: Bill Goggin, Jim Greves, Marjorie Eisent
 Weather: cldy, no wind 52°

Species	Pt. 4 Casmalia Creek (0800- 0815)	Pt. 6 Eucalyptus Grove (0830-0845)	Pt. A (0915-0930)	Pt. 9 (1124-1135)	Pt. 8 (1235 1245)	Pt. 3 (1300-1315)	Pt. 2 (1326-1340)	Pt. 1 (1345-1400)
Brown-headed cowbird	1							
Brewer's blackbird	2			5	2	2		
Western meadowlark						1	2	
Black phoebe	1	1			2			
House finch	3		1	1			1	
Common yellowthroat	2		1	2			1	
Savannah sparrow	4							
Song sparrow			2	1			3	
Red-winged blackbird	4							
Tree swallow					2			
Mallard					8	15	1	
Yellow-rumped warbler						1		
Say's phoebe	1	2					1	
Western sandpiper						3	20	
Least sandpiper				5	10	10	7	
Western scrub-jay	5	2						
Northern harrier						1		
Barn owl		2						
Long-billed dowitcher			6	6		6	9	
Bewicks wren	3	2	2					
Lesser goldfinch			1					
California towhee		4	2	1				
European starling	1	5			3			
Blue-gray gnatcatcher		1						
Lark sparrow		5						

Table C
Casmalia Waste Management Facility
Biological Species and Habitat Survey
Fall 2002 Bird Surveys

Date: September 24, 2002

Surveyors: Bill Goggin, Jim Greves, Marjorie Eisent

Weather: cldy, no wind 52°

Species	Pt. 4 Casmalia Creek (0800-0815)	Pt. 6 Eucalyptus Grove (0830-0845)	Pt. A (0915-0930)	Pt. 9 (1124-1135)	Pt. 8 (1235-1245)	Pt. 3 (1300-1315)	Pt. 2 (1326-1340)	Pt. 1 (1345-1400)
Cooper's hawk	1							
Nuttall's woodpecker	3	2						
American kestrel	2	2		1			1	
Great-horned owl								
White-crowned sparrow		1						
Anna's hummingbird	2		1					
Northern flicker	1							
Red-tailed hawk	1	1						
Wrentit		1						
Killdeer	2			4	2	3	6	
Western tanager		1						
European Starling	60					40		
Merlin	1							15

*Locally uncommon species