

SANTA CLARA VALLEY
HABITAT AGENCY



San Diego Annual Burrowing Owl Meeting

Santa Clara County Burrowing Owl Conservation

December 6, 2021

Focus Sites: 1 – Shoreline, 2 – Moffett Airfield, 3 – San Jose International Airport, 4 – RWF, Alviso, & 5 – Don Edwards National Wildlife Refuge, Warm Springs Unit



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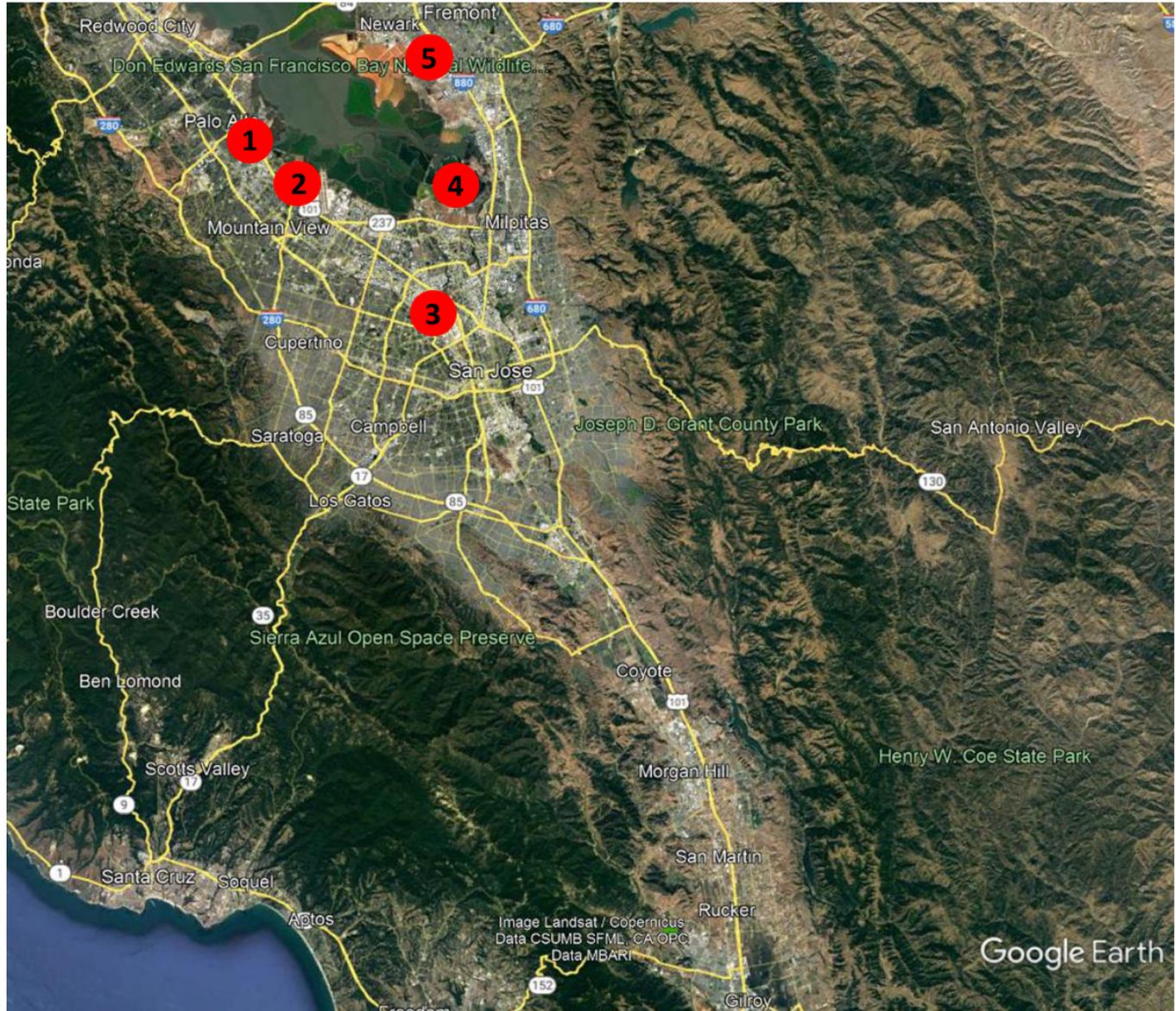
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Burrowing Owl Population Dynamics 2014 - 2021

Location		2014	2015	2016	2017	2018	2019	2020	2021
San Jose International Airport	Number of Adults	35	18	12	8	10	4	9	4
	Number of Chicks	34	24	21	14	8	11	17	10
SJ/SC Regional Wastewater Facility	Number of Adults	16	22	25	34	18	12	6	12
	Number of Chicks	17	46	58	29	23	21	9	9
Shoreline	Number of Adults	8	6	4	5	4	2	16	11
	Number of Chicks	6	3	4	0	14	6	35	6
Don Edwards NWR – Warm Springs	Number of Adults	17	6	8	12	6	3*	0	0
	Number of Chicks	4	13	13	7	5-6	0	0	0
Moffett Airfield	Number of Adults	24	17	12	13	12	12	4	5
	Number of Chicks	20	11	12	13	30	8	5	7
Ohlone (Captive Breeding)	Number of Adults	-	-	-	-	-	-	-	4
	Number of Chicks	-	-	-	-	-	-	-	4
Other Locations	Number of Adults	16	5	--	2	--	0	0	0
	Number of Chicks	6	--	--	1	--	0	0	0
Total	Number of Adults	116	74	61	74	50	33	35	36
	Number of Chicks	87	97	108	64	80-81	46	66	36



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2021 Burrowing Owl Breeding Season Survey Results

Site Name/Location	Number of Adults	Number of Young Fledged
Within Permit Area		
San Jose International Airport	4	10
San Jose – Santa Clara Water Regional Wastewater Facility	12	9
Permit Area Subtotal	16	19
Within Expanded Burrowing Owl Conservation Area		
Shoreline at Mountain View	11	6
Don Edwards NWR – Warm Springs Unit	0	0
NASA Ames Moffett Airfield	5	7
Ohlone (Captive Breeding Facility)	4	4
Expanded Area Subtotal	20	17
Grand Total	36	36



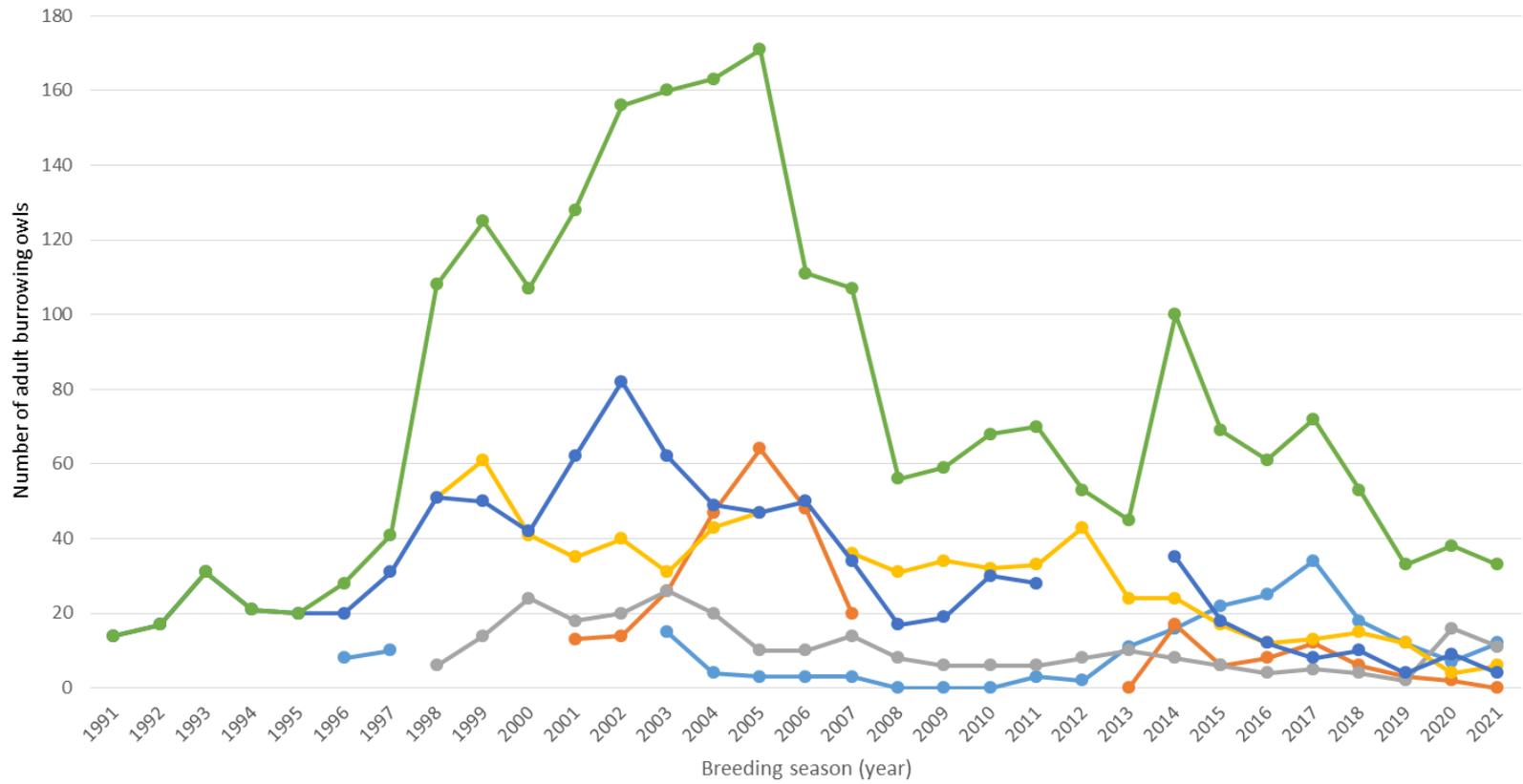
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Number of Adult Burrowing Owls 1991 - 2021

South Bay Area Annual Burrowing Owl Survey Results



- San José-Santa Clara Regional Wastewater Facility
- Don Edwards National Wildlife Refuge - Warm Springs Unit
- Shoreline at Mountain View
- NASA Ames Research Center at Moffett Field
- San José International Airport
- Total

Comparison of Occupied Habitats 2017 - 2021

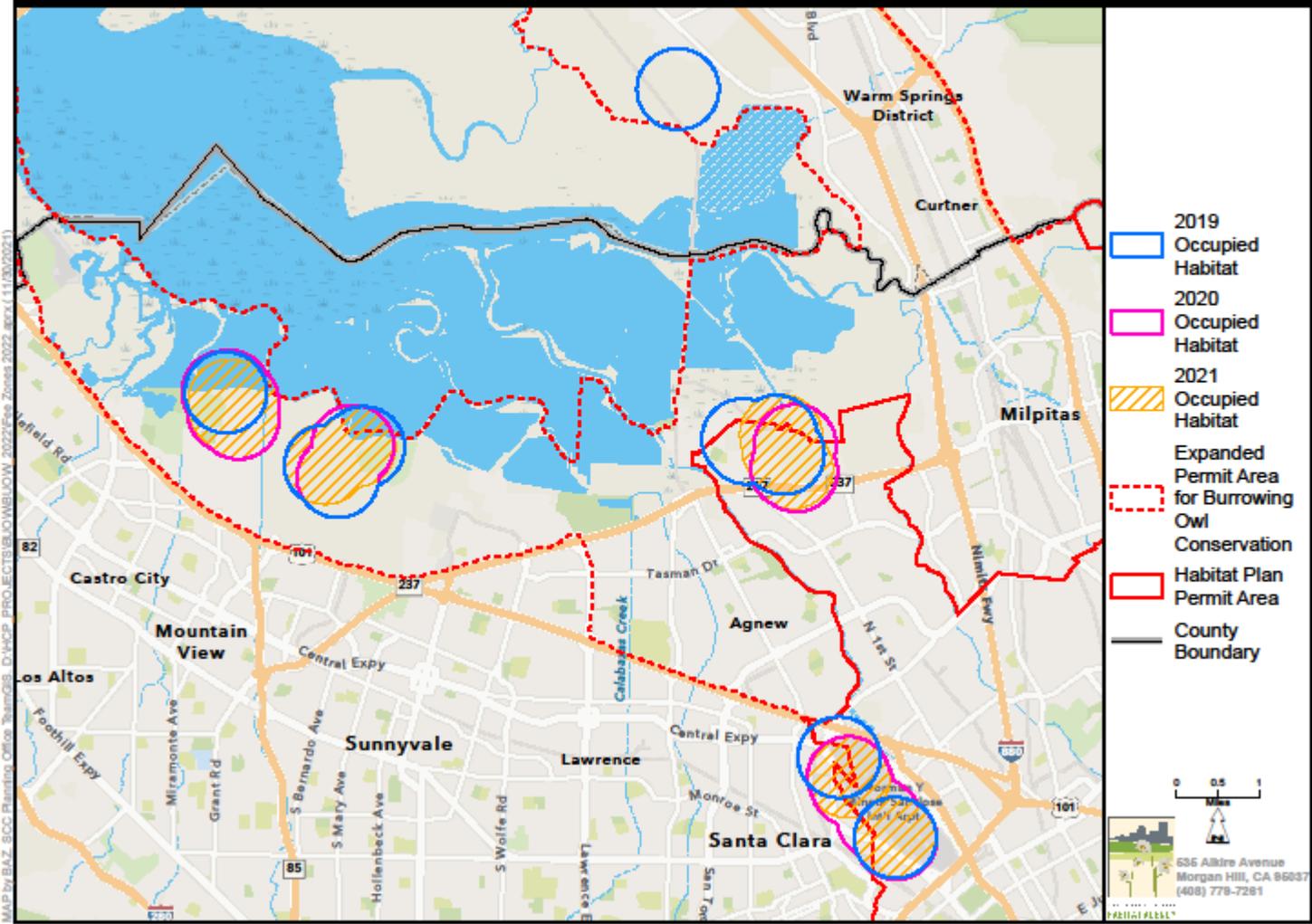


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Figure 9. Occupied Burrowing Owl Habitat in the Santa Clara Valley Habitat Plan Study Area and Expanded Study Area, 2019-2021





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Burrowing Owl Conservation Projects

- ❖ Habitat Enhancement
- ❖ Captive Breeding
- ❖ Juvenile Overwintering
- ❖ Banding
- ❖ Supplemental Feeding



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Shoreline Habitat Enhancement



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Fence



No-mow
areas



Native
Plantings



Irrigation



Removal
of tall trees



New artificial
burrows



Shoreline in Mountain View

Six-foot tall chain link fence



Low-growing native plant islands



Irrigation-areas using water cannons



Ground Squirrel relocation program



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RWF in Alviso



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No-mow area



Native
Plantings



Removal of
trees



New artificial
burrows



RWF in Alviso

Spraying



Native Plants



Artificial Burrows



Weed Removal



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Moffett Habitat Enhancement



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Increased mowing
& spraying



Artificial Burrows



Google Earth

Moffett



Mowing



Artificial Burrows



Signs & cones



Spraying



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Spray Areas



Artificial Burrows



Don Edwards National Wildlife Refuge – Warm Springs Unit



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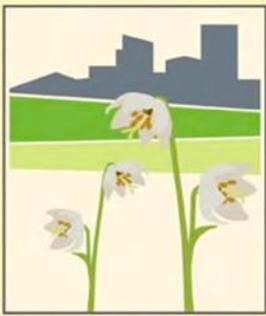
Spraying



Grazing



Captive Breeding - Ohlone Humane Society Wildlife Rehabilitation Center



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Juvenile Overwintering Project

- 2019** **13 Juveniles taken into captivity, PHS**
- 2020** **5 pairs released at Shoreline, 3 females released at Alviso.
21 chicks at Shoreline & 4 chicks at Alviso**
- 2020** **12 Juveniles taken into captivity, PHS**
- 2021** **3* pairs released at Alviso and 3 males
2 pairs for captive breeding program.
6 chicks produced at Shoreline, 9 chicks at Alviso & 4 chicks at Ohlone**
- 2021** **17 Juveniles taken into captivity, PHS & WERC**



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Peninsula Humane Society - Burlingame



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OwlCam2



Wildlife Education & Rehabilitation Center – Morgan Hill



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Alviso 2021 – Juvenile Overwintering



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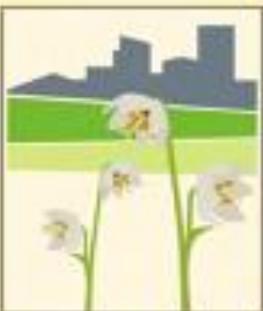
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Wildlife Education & Rehabilitation Center Burrowing Owl Breeding & Overwintering Facility



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Banding Study 2020 & 2021

Breeding Site	Number of BUOW's Banded in 2020			Number of BUOW's Banded in 2021		
	Female	Male	Chick	Female	Male	Chick
Shoreline	-	-	29	-	1	2
Moffett	-	1	5	-	-	4
RWF, Alviso	-	1	7	-	-	7
Warm Springs	-	1	-	-	-	-
San Jose Airport	-	-	-	-	-	7
Captive Breeding	-	-	-	-	-	4
Total	-	3	41	-	1	24



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Supplemental Feeding Project

Location	2020	2021
Shoreline	8 pairs	5 pairs
Moffett	2 pairs	2 of 3 pairs
RWF	3 pairs	6 pairs
Warm Springs	-	-



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Trail Cameras at Nest Burrows

19 Motion-detection Cameras ~ 190,000 photos per week



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Factors Impacting Current Breeding Sites

- Habitat Loss
- Habitat Quality
 - Predation Pressure
 - Impacts of Climate Change

All leading to declining
breeding populations





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Predation...

...is becoming a bigger factor.

More predators – more predation events

Developed sites and sites adjacent to urban development have double the number of predators as agricultural or open space sites (Tomes, 2019).

Predation over the Years



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Questions

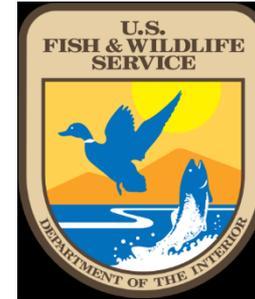


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Special Thanks To All The Following:



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