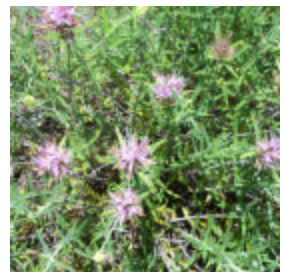
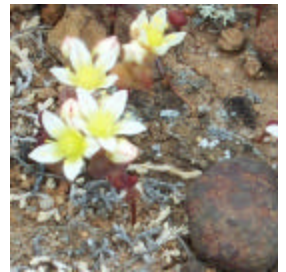


# **City of San Diego 2008 MSCP Rare Plant Monitoring Report**

City of San Diego  
City Planning & Community Investment Department  
Multiple Species Conservation Program Section

July 2008



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### Appendix A - City of San Diego MSCP Rare Plant Monitoring: 2008 Field Monitoring Dates and Staff

## I. Introduction

The Biological Monitoring Plan for the Multiple Species Conservation Program (Ogden Environmental, Inc. 1996) and the Status Summary of MSCP Biological Monitoring Protocols (Conservation Biology Institute 2001) are important components of the City of San Diego's MSCP under its 1997 Implementing Agreement (R28455) with the U.S. Fish and Wildlife Service and the California Department of Fish and Game. The monitoring program includes plant, animal, and habitat monitoring requirements for each MSCP-participating jurisdiction; the City of San Diego began rare plant monitoring in 1999. In 2005, a grant-funded scientific panel reviewed the regional MSCP rare plant monitoring program; their report is available online at <http://www.sandiego.gov/planning/mscp/rareplantmonitor.shtml>. City staff revised field protocols in accordance to these recommendations and began implementing the advisors' recommendations during the 2006 monitoring season.

In 2008, the City continued this effort, and performed rare plant monitoring for the following species/sites:

*Acanthomintha ilicifolia* – Black Mountain, Mission Trails Regional Park, Otay Lakes, Penasquitos Canyon, Sabre Springs

*Ambrosia pumila* – Mission Trails Regional Park – Kumeyaay Lake

*Arctostaphylos glandulosa* spp. *crassifolia* – Carmel Mountain, Crest Canyon, Del Mar Mesa, Penasquitos Canyon, San Dieguito River Bluffs

*Bloomeria clevelandii* – Del Mar Mesa, East Elliot, Marron Valley, Mission Trails Regional Park, Otay Lakes

*Brodiaea orcuttii* – Del Mar Mesa, Carroll Canyon, General Dynamics, Nobel Drive, USIU/Scripps Miramar Ranch

*Ceanothus verrocossus* – Carmel Mountain, Crest Canyon

*Cordylanthus orcuttianus* – Otay River Valley

*Cylindropuntia californica* var. *californica* – Balboa Park, Otay Mesa, Spring Canyon

*Deinandra conjugens* – Dennery Ranch, Proctor Valley

*Dudleya blochmaniae* ssp. *brevifolia* – Carmel Mountain, Crest Canyon, Skeleton Canyon

*Dudleya variegata* – Black Mountain, East Elliot, Spring Canyon, Goat Mesa (Spring Canyon), Lake Murray, Marron Valley, Mercy Road, Mission Trails Regional Park, Navajo/Mission Gorge, Otay Lakes, Ocean View Hills, Paradise Valley, Santa Luz

*Eryngium aristulatum* var. *parishii* – Del Mar Mesa, General Dynamics, Goat Mesa (Spring Canyon), Otay Lakes

*Lessingia filaginifolia* var. *linifolia* – Carmel Mountain, Crest Canyon, Del Mar Mesa, Overlook Park, Torrey Highlands

*Lotus nuttallianus* – Mission Bay

*Monardella viminea* – Lopez Canyon, Marron Valley, Otay Lakes, Sycamore Canyon

*Navarretia fossalis* – Carroll Canyon, Goat Mesa (Spring Canyon), Nobel Drive, Otay Lakes, Robinhood Ridge

*Pinus torreyana* ssp. *torreyana* – Crest Canyon

*Pogogyne abramsii* – Carroll Canyon, Del Mar Mesa, General Dynamics

*Pogogyne nudiuscula* – Robinhood Ridge

*Rosa minutifolia* – Dennery Ranch

In addition, the City has coordinated with the Center for Lands Management for their adaptive monitoring studies on *Ambrosia pumila*. They are testing multiple invasive control techniques at various populations, including the City's Mission Trails Park site, which was identified in the 2006 report as the MSCP's experimental *A. pumila* population.

## City of San Diego MSCP Rare Plant Monitoring: 2008 Summary Results

Species	Site Name	Population				Native		Non-Native		Management Recommendation's	Field Data Sht (pg.#)	Photo (pg.#)
		Area (m <sup>2</sup> ) <sup>1</sup>	Area (ft <sup>2</sup> ) <sup>1</sup>	# Individuals	Percent Cover	Number of Species <sup>2</sup>	Percent Cover <sup>2,3</sup>	Number of Species	Percent Cover <sup>3</sup>			
<i>Acanthomintha ilicifolia</i> (San Diego Thorn-mint)	Black Mountain	0.5	5.0	9	0.5%	16	23%	4	83%	Control invasives (especially non-native grasses like <i>Brachypodium</i> sp.)	10	12
	Mission Trails Regional Park	3035.0	32670.0	250	1%	14	37%	7	36%	Invasive removal if possible without disturbing soils	14	16
	Otay Lakes	10.7	115.0	0	0%	8	53%	5	68%	Control invasives	18	19
	Penasquitos Canyon Obs. 1	59.1	636.1	0	0%	14	56%	2	51%	Control invasives	20	21
	Penasquitos Canyon Obs. 2	5.7	61.1	0	0%	6	47%	2	53%	Control invasives	22	23
	Penasquitos Canyon Obs. 3	118.3	1273.3	0	0%	6	47%	1	50%	Control invasives	24	25
	Sabre Springs East Subpopulation	54.8	589.6	100	3%	7	63%	10	43%	Control <i>Brassica nigra</i> , continue invasive removal efforts	26	27
	Sabre Springs South Subpopulation	225.0	2421.0	500	3%	14	91%	9	53%	Control invasives	30	32
	Sabre Springs West Subpopulation	150.0	1614.0	150.0	5%	5	71%	9	20%	Control invasives	28	29
		Note: Primary invasives at all <i>A. ilicifolia</i> sites are Black Mustard ( <i>Brassica nigra</i> ), Tocolote ( <i>Centaurea melitensis</i> ), and non-native grasses.										
<i>Agave shawii</i> (Shaw's Agave)		Note: Monitoring location appears to be on lands not owned by the City of San Diego.										
<i>Ambrosia pumila</i> (San Diego Ambrosia)	Mission Trails Regional Park Kumeaya Lake	16809.0	180931.0	45000	3%	9	22%	11	101%	Invasive species removal/dethatch, if possible without damaging <i>Ambrosia pumila</i>	36	38
<i>Arctostaphylos glandulosa</i> ssp. <i>Crassifolia</i> (Del Mar Manzanita)	Carmel Mountain	800.0	8611.0	100	20%	10	83%	1	1%	Monitor trail use & install barriers if needed	42	43
	Crest Canyon #1 South	930.8	10018.8	10	1%	19	88%	2	3%	Limit recreational use to designated trails, install protective fencing near sensitive populations; remove invasive species ( <i>Mesembryanthemum</i> sp. and <i>Cortaderia selloana</i> )	44	45
	Crest Canyon #2 North	12140.0	130673.0	100	2%	15	49%	2	2%	Control of <i>Ehrharta</i> sp., educational community outreach	46	47
	Del Mar Mesa Obs. 1	4451.0	47910.0	100	2%	11	72%	0	0%	Educational community outreach for bordering residential, control invasive populations	48	49
	Del Mar Mesa East Obs. 2	17609.0	189541.0	20	4%	10	96%	0	0%	None	50	51
	Penasquitos Canyon	12068.0	129898.0	10	1%	11	94%	0	0%	None	52	53
	San Dieguito River Bluffs Obs. 1	1173.0	12626.0	100	5%	13	53%	3	4%	Control pampas, fountain grass, and landscape plants ( <i>Mesembryanthemum</i> sp. and <i>Acacia</i> sp.)	54	55
<i>Baccharis vanessae</i> (Encinitas Baccharis)	†	†	†	†	†	†	†	†	†	†	†	†

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		Area (m <sup>2</sup> ) <sup>1</sup>	Area (ft <sup>2</sup> ) <sup>1</sup>	# Individuals	Percent Cover	Number of Species <sup>2</sup>	Percent Cover <sup>2,3</sup>	Number of Species	Percent Cover <sup>3</sup>			
<i>Bloomeria clevelandii</i> (San Diego Goldenstar)	Del Mar Mesa Obs. 1	62.2	669.9	36	1%	20	31%	3	4%	Control invasives	58	60
	Del Mar Mesa Obs. 2	586.3	6311.3	20	1%	26	53%	5	6%	Control invasives	62	64
	East Elliot Obs. 1	14141.0	152212.0	8,000-10,000	5%	19	58%	7	37%	Manage fire regime, continue to restrict vehicle access along abandoned roadway	66	68
	East Elliot Obs. 2	488.8	5261.6	400	1%	13	43%	4	15%	Control invasives	70	72
	East Elliot Obs. 3	3215.9	34615.2	55	0.5%	16	128%	3	4%	Control invasives	74	76
	East Elliot Obs. 4	11546.8	124289.0	2300	1%	20	53%	2	10%	Control invasives	78	80
	East Elliot Obs. 5	42486.6	457321.9	1000	2%	14	67%	4	8%	Manage fire regime, continue to restrict vehicle access along abandoned roadway	82	84
	Marron Valley Obs. 1	68512.4	737460.6	>20,000 (Est)	30%	16	97%	5	94%	Weeding, dethatching	86	88,89
	Marron Valley Obs. 2	68512.4	737460.6	>30,000 (Est)	30%	10	46%	4	65%	Control invasives	90	91
	Marron Valley Obs. 3	68512.4	737460.6	720,000	10%	11	33%	7	51%	Control invasives	92	94
	Marron Valley Obs. 4	68512.4	737460.6	>5,000 (Est)	5%	7	16%	7	102%	Control invasives	96	97
	Mission Trails Regional Park	1255.8	13516.2	0	0%	13	36%	4	27%	Control invasives	98	100
	Otay Lakes East Obs. 1	336875.2	3626094.9	>1000 (Est)	20%	9	83%	5	82%	Continue access restrictions, continue weed removal efforts	102	103
	Otay Lakes West Obs. 2	336871.0	3626049.9	5,000	20%	12	98%	4	53%	Continue access control and invasive species removal	104	105
<i>Brodiaea orcuttii</i> (Orcutt's Brodiaea)	Del Mar Mesa Obs. 1	135.5	1458.0	500	2%	12	56%	3	7%	Control invasives	110	111
	Del Mar Mesa Obs. 2	2301.7	24774.9	1000	3%	12	93%	3	3%	Control invasives	112	113
	Carroll Canyon	1046.5	11263.9	100	5%	11	122%	3	21%	Continue restricting access and maintain fences/signs	108	109
	General Dynamics East Obs. 1	3561.2	38332.5	2500	15%	15	116%	3	11%	Continue access restrictions/signage	114	115
	General Dynamics West Obs. 2	7028.4	75653.0	250	3%	10	116%	2	8%	Maintain access restrictions/signage	116	117
	Nobel Drive	9.9	106.6	10	1%	15	47%	11	46%	Continue invasive plant removal, maintain fence around vernal pools	118	120
	USIU/Scripps Miramar Ranch	1195.9	12871.8	0	0%	7	20%	10	125%	Control invasives (especially non native grasses and Centaurea sp.)	122	123
<i>Ceanothus verrocosus</i> (Wart-Stem Lilac)	Carmel Mountain	20270.6	218190.3	200	60%	7	73%	0	0%	None	126	127
	Crest Canyon	1529.0	16458.0	1	0.5%	8	42%	1	2%	None	128	129
<i>Cordylanthus orcuttianus</i> (Orcutt's Bird's Beak)	Otay River Valley	692.8	7456.8	500	7%	11	40%	4	4%	Trail construction per OVRP; fence installed as condition of project	132	133

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		Area (m <sup>2</sup> ) <sup>1</sup>	Area (ft <sup>2</sup> ) <sup>1</sup>	# Individuals	Percent Cover	Number of Species <sup>2</sup>	Percent Cover <sup>2,3</sup>	Number of Species	Percent Cover <sup>3</sup>			
<i>Cylindropuntia californica</i> (Snake Cholla)	Balboa Park	319.0	3433.7	3	1%	15	76%	1	5%	Control invasives	136	137
	Otay Mesa	1011.0	10882.0	15	1%	10	31%	4	8%	Hillside relatively undisturbed - prevent further road expansion	138	139
	Goat Mesa (Spring Canyon)	2428.0	26134.8	30	1%	11	49%	6	11%	Limit off-road vehicle use	140	141
<i>Deinandra conjugens</i> (Otay Tarplant)	Dennery Ranch	3623.6	39004.5	1	0.5%	10	38%	1	35%	None	144	145
	Proctor Valley	3347.3	36030.4	2000	10%	9	45%	6	30%	Off-road vehicle use limited by fences	146	147
<i>Dudleya blochmaniae</i> ssp. <i>Brevifolia</i> (Short-Leaved Dudleya)	Carmel Mountain Obs. 1	300.0	3229.0	500	0.5%	10	39%	3	3%	None	150	151
	Carmel Mountain Obs. 2	250.0	2691.0	400	0.5%	9	88%	1	<1%	Maintain existing fence	152	153
	Carmel Mountain Obs. 3	670.0	7211.8	4000	5.0%	13	51%	1	1%	None	154	155
	Crest Canyon North	158.0	1700.0	500	1%	12	31%	2	2%	Curtail use, if any, by adjacent land owners; remove <i>Mesembryanthemum</i> sp. at East edge of private property if possible	156	157
	Crest Canyon South	170.0	1829.0	4	0.5%	6	7%	0	0%	Install fencing along trail	158	159
	Skeleton Canyon	30.0	322.0	30	0.5%	12	62%	0	0%	Reroute trail	160	161
<i>Dudleya variegata</i> (Variegated Dudleya)	Black Mountain East	0.0	0.0	0	0%	10	22%	8	48%	Control invasives	164	166
	East Elliot - Creek	1725.2	18570.0	210	1%	13	17%	7	58%	Control invasives	168	170
	East Elliot - Hilltop	345.0	3713.5	180	1%	21	61%	3	8%	Control invasives	172	174
	East Elliot - Slope	1155.1	12434.0	130	0.5%	8	55%	6	47%	Control invasives	176	177
	Goat Mesa (Spring Canyon)	0.0	0.0	0	0%	9	37%	3	28%	Adjacent trail closed as part of 2006 TransNet vernal pool grant project	178	179
	Lake Murray	0.0	0.0	0	0%	9	18%	3	3%	None	180	181
	Marron Valley	149.6	1610.0	800	2%	10	25%	7	75%	Invasive removal if species appear to be in decline; continue stringent access restrictions	182	183
	Mercy Road	25.0	269.1	30	1%	12	32%	4	45%	Control invasives; Maintain access control	184	185
	Mission Trails #1	124.5	1340.0	0	0%	13	22%	8	28%	Control invasives	186	188
	Mission Trails #2	241.4	2598.0	70	1%	11	12%	5	26%	Control invasives	190	191
	Mission Trails #3	44.0	473.6	50	1%	10	11%	6	21%	Control invasives	192	193
	Navajo/Mission Gorge	500.0	5382.0	500	2%	12	16.0%	8	36%	Control invasives	194	196
	Otay Lakes	72702.0	782557.6	0	0%	8	72%	5	51%	Control invasives	198	199
	Ocean View Hills	0.0	0.0	0	†	†	†	†	†	None	200	†
	Paradise Valley	0.0	0.0	100 (Est)	†	†	†	†	†	None	201	†
	Santa Luz	70.0	753.0	70	1%	9	67%	11	13%	Population protected by chicken wire and non-native grasses have been removed, continue current efforts	202	204
Note: Presence/absence only surveys conducted at Ocean View Hills and Paradise Valley.												

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		Area (m <sup>2</sup> ) <sup>1</sup>	Area (ft <sup>2</sup> ) <sup>1</sup>	# Individuals	Percent Cover	Number of Species <sup>2</sup>	Percent Cover <sup>2,3</sup>	Number of Species	Percent Cover <sup>3</sup>			
<i>Eryngium aristulatum</i> var. <i>parishii</i> (San Diego Button Celery)	Del Mar Mesa #1	500.0	5382.0	500	3%	14	59%	2	5%	Control invasives	208	209
	Del Mar Mesa #2	3278.0	35284.0	300	1%	14	41%	2	2%	Area is fenced	210	211
	Del Mar Mesa #3	6351.2	68363.9	1000	3%	11	13%	1	1%	Control invasives	212	213
	General Dynamics	266.8	2872.1	2,500	10%	15	117%	2	3%	Continue access restrictions and signage	214	215
	Goat Mesa #1 (Spring Canyon)	1930.7	20778.4	350	3%	7	70%	2	2%	Non-native grass thatch removed and area fenced as part of the 2006 TransNet vernal pool grant project	216	217
	Goat Mesa #2 (Spring Canyon)	1930.7	20778.4	100	3%	9	15%	1	<1%	Non-native grasses thatch removed and area fenced as part of the 2006 TransNet vernal pool grant project	218	219
	Otay Lakes	12140.6	130680.0	100	3%	8	64%	6	40%	Continue access restrictions and invasive species/dethatch removal	220	221
<i>Lessingia filaginifolia</i> var. <i>linifolia</i> (Del Mar Sand Aster)	Carmel Mountain	1658.3	17849.4	7	1%	6	28%	5	6%	Erosion control/measures	224	225
	Crest Canyon #1	404.7	4356	250	30%	9	71%	2	2%	Monitor and remove Mesembryanthemum sp., and fence trails as necessary	226	227
	Crest Canyon #2	404.7	4356	25	3%	12%	47%	3	16%	None	228	229
	Del Mar Mesa	37.2	400	11	1%	12	28%	1	1%	Monitor trail; fence if impacted	230	231
	Overlook Park	3051.1	32842	150	5%	13	36%	2	4%	Maintain fence	232	233
	Torrey Highlands	397-1	421	400	15%	13	49%	4	4%	Monitor trail; fence if impacted	234	235
<i>Lotus nuttallianus</i> (Nuttall's Lotus)	Mission Bay Mariner's Point	0.0	0.0	< 50 (Est)	†	†	†	†	†	Area is fenced	238	†
	Mission Bay Dune Triangle	1000.0	10764.0	20	1%	6	16%	4	24%	Control invasives; expand current efforts	240	241
	Mission Bay Hospitality Point	5505.0	59258.0	350	4%	6	21%	3	23%	Control invasives, continue maintenance of signs/fences	242	243
	No Man's Land (Mission Bay Site #1)	35465.7	381762.0	100	3%	4	14%	9	34%	Prevent <i>Chrysanthemum</i> sp. infestation, remove <i>Brassica</i> sp. and non-native grasses	244	245
	SD River Rip Rap (Mission Bay Site #3)	107724.3	115973.5	< 100 (Est)	1%	9	18%	6	44%	None	246	247
	South Shores (Mission Bay Site #6)	27668.8	297834.0	500	1%	7	8%	8	88%	Control invasives	248	249
		Note: Presence/absence only surveys conducted at Mariner's Point.										

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Species	Site Name	Population				Native		Non-Native		Management Recommendation's	Field Data Sht (pg.#)	Photo (pg.#)
		Area (m <sup>2</sup> ) <sup>1</sup>	Area (ft <sup>2</sup> ) <sup>1</sup>	# Individuals	Precent Cover	Number of Species <sup>2</sup>	Percent Cover <sup>2,3</sup>	Number of Species	Percent Cover <sup>3</sup>			
<i>Monardella stoneana</i> (Jennifer's Monardella)		Note: Southern populations (including Marron Valley) of <i>Monardella viminea</i> re-classified as <i>M. stoneana</i> by Elvin and Sanders (2003)*										
<i>Monardella viminea</i> (Willow Monardella)	Lopez Canyon West Terrace #1	1459.0	15704.0	1	1%	6	15%	4	13%	Control invasive grasses (i.e. <i>Bromus</i> sp., <i>Vulpia</i> sp.) and prevent <i>Chrysanthemum</i> sp. population from expanding	252	253
	Lopez Canyon East of Bridge #2	40.0	430.0	4	1%	7	21%	4	14%	Control invasives	254	255
	Lopez Canyon East of Bridge #3	1659.0	17857.0	3	1%	6	6%	6	13%	Control invasives, prevent <i>Chrysanthemum</i> sp. population from expanding	256	257
	Marron Valley	13340.0	143590.0	95	1%	17	26%	8	15%	Fire management plan prepared	258	260
	Otay Lakes	0.0	0.0	0	0%	14	23%	11	30%	None	262	264
	Sycamore Canyon	15970.4	171899.0	29	3%	11	13%	5	26%	Control invasives, consider erosion control	266	268
<i>Navarretia fossalis</i> (Spreading Navarretia)	Carroll Canyon	1866.5	20090.3	0	0%	12	145%	1	2%	Continue to restrict access and maintain fences/signs	272	273
	Goat Mesa (Spring Canyon)	1930.0	20778.4	0	0%	9	15%	1	0.5%	Site has been fenced and non-native grass removed as part of the 2006 TransNet grant vernal pool project	274	275
	Nobel Drive	15781.0	169867.3	100	3%	14	41%	2	2%	Continue invasive plant removal/ keep vernal pools fenced	276	277
	Otay Lakes	2.7	30.0	32	0.5%	14	51%	3	25%	Continue invasive plant removal project, continue restricted access, evaluate post removal project data	278	280
	Robinhood Ridge	71.5	770.0	0	0%	13	44%	1	7%	Maintain existing fences/signs as necessary	282	283
<i>Pinus torreyana</i> ssp. <i>torreyana</i> (Torrey Pine)	Crest Canyon Obs. 1	364.2	3 920.4	3	10%	7	21%	1	1%	None	286	287
	Crest Canyon Obs. 2	562.5	6054.8	12	15%	10	25%	1	1%	None	288	289
<i>Pogogyne abramsii</i> (San Diego Mesa Mint)	Carroll Canyon	173.0	1865.9	500	25%	12	89%	1	1%	Continue to control access and maintain fencing	292	293
	Del Mar Mesa Obs. 1	32.4	348.6	50	1%	14	26%	2	4%	Area is fenced	294	295
	Del Mar Mesa Obs. 2	304.5	3278.0	1000	8%	14	41%	2	2%	Area is fenced	296	297
	General Dynamics West	42.0	452.5	250	25%	11	117%	1	1%	Maintain access restrictions/signage	298	299
<i>Pogogyne nudiuscula</i> (Otay Mesa Mint)	Robinhood Ridge	71.5	770.1	10	1%	13	44%	1	7%	Maintain existing fences/signs as necessary	302	303
<i>Rosa minutifolia</i> (Baja Rose)	Dennery Ranch	3623.6	39004.5	1	0.5%	10	36%	1	35%	None	306	307
1) Observation area only, not necessarily representative of entire site of comparable to previous quantitative analyses. 2) For 2008 number and percent cover of native species includes species of interest. * Elvin M.A. and Sanders, S.C.: (2003) A New Species of Monardella (Lamiaceae) from Baja California, Mexico, and Southern California, United States. Novon. 13:4. 425432.												

1) Observation area only, not necessarily representative of entire site of comparable to previous quantitative analyses.

2) For 2008 number and percent cover of native species includes species of interest.

\* Elvin M.A. and Sanders, S.C. (2003) A New Species of *Monardella* (Lamiaceae) from Baja California, Mexico, and Southern California, United States. Novon. 13:4. 425-432.

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*Acanthomintha ilicifolia*  
San Diego Thorn-Mint



© Scott McMillan, 2001

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Acanthamintha illicifolia* Common Name: San Diego Thornmint  
 Site Name: BLACK MOUNTAIN Management Unit #: TBD  
 Date: 5/22/2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: JASMINE WATTS - HELIX Environmental  
 JENNIFER VAUGHAN - City of SD MSCA

Species Found? ☒ Yes ☐ No

Total No. Individuals: 9 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 0.5 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 4 ☒ meters ☐ feet  
 Observation Location: 102841063.393 19410643.291 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Non-native grassland / Coastal Sage Scrub  
 Landowner/Manager: City of San Diego Parks & Rec.  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Overwhelming dominance of non-native gramin

Management Recommendation/s:

Need to weed/control non-native grasses (i.e., *Brachypodium*)

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Acanthamintha illicifolia</i>	<1			<i>Bloomeria crocea</i> (dried)	2		
<i>Brachypodium distachyon</i> *	80			<i>Isomeris arborea</i>	1		
<i>Avena</i> sp. *	1			<i>Calochortus</i> sp. (dried)	<1		
<i>Deinandra fasciculata</i>	3			<i>Centauria melitensis</i> *	1		
<i>Rhus integrifolia</i>	1			<i>Brassica</i> sp. * (dried)	1		
<i>Opuntia littoralis</i>	<1			<i>Calystegia macrostegia</i>	1		
<i>Malosma laurina</i>	1			<i>Eriogonum fasciculatum</i>	1		
<i>Adelpha californica</i>	<1			<i>Chloranthus amurensis</i>	1		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S  
 Location [State Plane (ft)]: 102841063.393 19410643.291 Direction (facing): N, NE, E, SE Height: 1.1 m Camera Angle: level Photo #: 274-277 File location/s: L: MSCP  
 Location [State Plane (ft)]: \_\_\_\_\_ Direction (facing): \_\_\_\_\_ Height: \_\_\_\_\_ Camera Angle: \_\_\_\_\_ Photo #: \_\_\_\_\_ File location/s: \_\_\_\_\_

## V. OTHER FIELD NOTES

Other Field Notes/Comments: Individuals found senescing or dried, population may be larger - should come out earlier next year  
 Access trail from southwestern side of water reservoir

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

<u>Species</u>	<u>Cover</u>
<i>Dichelostemma capitatum</i>	5
<i>Artemisia californica</i>	1
<i>Salvia mellifera</i>	1
<i>Nassella</i> sp.	1

## **Photo 1. *Acanthomintha ilicifolia* (San Diego Thornmint) Black Mountain**



Panorama from Southwestern edge of population, facing North, Northeast, East, Southeast.  
Panorama location is 6284663.39 1946643.29 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Acaethamnia ilicifolia Common Name: San Diego Mountain  
 Site Name: Mission Trails Regional Park Management Unit #: TBD  
 Date: 5/17/08 Management Regime: TBD  
 Surveyors and Affiliation/Agency: Patty Miller City of San Diego MSCP  
Ria Bruce City of San Diego MSCP

Species Found? ☒ Yes ☐ No

see note

Total No. Individuals: 250

☐ Exact

☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: .75

acres  
Units

☐ Exact (based on GPS mapping)

☒ Estimate

Collection (if not collected previously)?  
If yes: \_\_\_\_\_

☐ Yes

☒ No

☐ Collected Previously

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0

☒ meters

☐ feet

Observation Location: 10309619.848

188117.522

☒ State Plane (feet)

☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: non-native grasslands sparse CSS

Landowner/Manager: City of San Diego Park + Rec Open Space

Overall Site Quality\*\*

☐ Very Good-Excellent

☒ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: open space (including hiking/biking trail)

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

non-native grasslands; human intrusion does not appear to be an issue

Management Recommendation/s:

invasive removal IF possible without disturbing soils

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Ferocactus viridescens</u>	<u>&lt;1</u>			<u>Bromus madritensis ssp. r</u>	<u>2</u>		
<u>Malacothamnus fasciculatus</u>	<u>1</u>			<u>Calceolaria splendens</u>	<u>&lt;1</u>		
<u>Malva murina</u>	<u>3</u>			<u>Isomeris arborea</u>	<u>1</u>		
<u>Lotus scoparius</u>	<u>1</u>			<u>Opuntia spp.</u>	<u>&lt;1</u>		
<u>Isorema menziesii</u>	<u>2</u>			<u>Elymus gallica *</u>	<u>1</u>		
<u>Deinandra fasciculata</u>	<u>15</u>			<u>Acaethamnia ilicifolia</u>	<u>1</u>		
<u>Brassica nigra *</u>	<u>5</u>			<u>Centaurium verum</u>	<u>&lt;1</u>		
<u>Centaurium helitensis</u>	<u>3</u>			<u>Dichlosterma capitatum</u>	<u>1</u>		
<u>Rhus integrifolia</u>	<u>5</u>			<u>Lepidium spp. *</u>	<u>1</u>		

## IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

6308619.848

188117.522

N-NE-E-SE-S 1.6m (52 in) ~10° down

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

abundant in NE corner - restoration area? marked with pin flags

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

Excellent	100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 1% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Form

Species

Cover

*Anagallis arvensis* \*

1%

*Brachypodium distachyon* \*

25%



## **Photo 2. *Acanthomintha ilicifolia* (San Diego Thornmint) Mission Trails Regional Park**



Panorama from Western edge of population, facing North, Northeast, East, Southeast, South.  
Panorama location is 6308619.848 1881117.522 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Acanthomintha illicholia* Common Name: San Diego thornmint  
 Site Name: Day Lakes Management Unit #: N/A  
 Date: 5/16/08 Management Regime: N/A  
 Surveyors and Affiliation/Agency: Jasmine Wallis - Helix Environmental  
 Jennifer Vaughan - City of San Diego - MSCP

Species Found? ☐ Yes ☒ No

Total No. Individuals: 0 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 10.68 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +6 4 ☒ meters ☐ feet

Observation Location: 354877.6154 180753.397 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Vernal pool / non-native grassland  
 Landowner/Manager: City of S.D.

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Non-native grasses

Management Recommendation/s:

Control non-natives

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Deinandra fasciculata</i>	40			<i>Psilocarpon brevifolium</i>	5		
<i>Bromus hordeaceus</i> *	25			<i>Salsola tragus</i> *	1		
<i>Cressa truxculmifera</i>	1			<i>Baccharis glauca</i>	2		
<i>Cuscuta</i> sp.	1			<i>Isocoma sutherlandii</i>	1		
<i>Chloranthus pinnatifidus</i>	1			<i>Erodium</i> sp. *	5		
<i>Eryngium cristallinum</i>	2						
<i>Bombycium madagascariense</i> *	15						
<i>Arenaria barbatula</i> *	2						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

354877.6154 180753.397 SE S, SW, W 0.85m 100 up 196-201 L MSCP  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: GPS'd photo point 5/16/08; site surveyed multiple additional times Feb.- May by S. McMillan/B. Hanson (EDAW) as part of ongoing habitat enhancement project, species not located.

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



### **Photo 3. *Acanthomintha ilicifolia* (San Diego Thornmint) Otay Lakes**



Panorama from Western edge of population, facing Southeast, South, Southwest, West.  
Panorama location is 6356877.615 1807531.397 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Acanthomintha ilicifolia* Common Name: *San Diego Thom Mint*  
 Site Name: *Penasquitos Canyon Obs 1* Management Unit #: *N/A*  
 Date: *5/16/09* Management Regime: *N/A*  
 Surveyors and Affiliation/Agency: *Jasmine Waller - Helix Environmental*  
*Jennifer Vaughan - City of San Diego - MSCP*

Species Found? ☐ Yes ☒ No *Too early? Increase of NNG cover?*  
 Total No. Individuals: *0* ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *59.10* *m<sup>2</sup>* ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No *Based on 2006 pop. data*  
 If yes: \_\_\_\_\_  
 Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: *+0 4* ☒ meters ☐ feet  
 Observation Location: *4276496.255* *1918576.025* ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: *DCSS / NNG*  
 Landowner/Manager: *City of S.D Parks + Rec*  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: *Open Space - ady. trail*  
 Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): *Non-native grass dominate*  
 Management Recommendation/s: *Control non-native grass*

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Delonandra fasciculata</i>	40			<i>Osmodendron tenella</i>	1		
<i>Calochortus splendens</i>	2			<i>Eriophyllum confertiflorum</i>	1		
<i>Adelphia californica</i>	1			<i>Quercus dumosa</i>	1		
<i>Arena barbata</i> *	1			<i>Rhus integrifolia</i>	1		
<i>Baccharis sarothraed</i>	2			<i>Salvia mellifera</i>	1		
<i>Nasella lepidota</i>	1			<i>Dichelostemma capitatum</i>	1		
<i>Lecoma monnifolia</i>	2			<i>Salvia apiana</i>	1		
<i>Centaurium monustum</i>	1			<i>Brachypodium distachyon</i> *	50		

**IV. SITE PHOTOMONITORING**  
 Camera type: *CANON POWERSHOT A7S*  
 Location [State Plane (ft)]: *4276496.255* *1918576.025* Direction (facing): *E, SE, S, SW* Height: *0.5m* Camera Angle: *Flat* Photo #: *202-207* File location/s: *L:\MSCP\monitorm*

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: *South of trail subpopulation*

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



## **Photo 4. *Acanthomintha ilicifolia* (San Diego Thornmint) Penasquitos Canyon Observation # 1**



Panorama from North of population, facing East, Southeast, South, Southwest.  
Panorama location is 6276496.255 1918576.025 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Acanthamintha illinoifolia Common Name: San Diego Thornmint  
 Site Name: Penasquitos Canyon Obs 2 Management Unit #: NA  
 Date: 5/16/08 Management Regime: NA  
 Surveyors and Affiliation/Agency: JASMINE WATTS - HEUX Environmental  
JENNIFER VAUGHAN - CITY OF S.D. - MSCP

Species Found? ☐ Yes ☒ No TOO EARLY? INCREASE of NNG cover?  
 If not, why (if reason known or suspected)?  
 Total No. Individuals: 0 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 5.68 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No Based on 2006 pop data  
 If yes: \_\_\_\_\_ Collected Previously \_\_\_\_\_  
 Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: +0 1 ☒ meters ☐ feet  
 Observation Location: 0270540.332 1918403.766 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: DCSS/NNG  
 Landowner/Manager: City of S.D. Parks & Rec  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: Open Space  
 Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): Non-native grass dominance  
 Management Recommendation/s: Control non-native grass

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Deinandra fasciculata</u>	<u>40</u>			<u>Larrea sp.</u>	<u>2</u>		
<u>Brachypodium distachyon</u> *	<u>50</u>						
<u>Adelphia californica</u>	<u>1</u>						
<u>Centauria melitensis</u> *	<u>2</u>						
<u>Coleochaete splendens</u>	<u>1</u>						
<u>Avena barbata</u> *	<u>1</u>						
<u>Salvia mellifera</u>	<u>1</u>						
<u>Isoroma nuttallii</u>	<u>2</u>						

**IV. SITE PHOTOMONITORING**  
 Camera type: CANON POWERS A7S  
0270540.332 1918403.766 SE, S, SW 0.85m 5° down 108-212 L-MSCP/m  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 \_\_\_\_\_ Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: NORTH OF TRAIL subPOPULATION



## **Photo 5. *Acanthomintha ilicifolia* (San Diego Thornmint) Penasquitos Canyon Observation # 2**



Panorama from North of population, facing Southeast, South, Southwest.  
Panorama location is 6276540.332 1918463.766 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Acanthemintha illinoensis</u>		Common Name: <u>San Diego Thymine</u>	
Site Name: <u>Penasquitos Canyon Obs 3</u>		Management Unit #: <u>N/A</u>	
Date: <u>5/16/08</u>		Management Regime: <u>N/A</u>	
Surveyors and Affiliation/Agency: <u>JASMINE WATTS - HPLUX Environmental</u> <u>JENNIFER VAUGHN - City of S.D. MSCP</u>			
Species Found? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>TOO EARLY? INCREASE IN NNG COVER?</u>			
Total No. Individuals: <u>0</u>		If not, why (if reason known or suspected)?	
Population/Subpopulation Area: <u>118.29</u>		<input checked="" type="checkbox"/> Exact <input type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)	
		Units <u>M<sup>2</sup></u> <input checked="" type="checkbox"/> Exact (based on GPS mapping) <input type="checkbox"/> Estimate	
Collection (if not collected previously)?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>Based on 2000 pop data</u>	
If yes: _____		<input type="checkbox"/> Collected Previously	
Collector	Collection Number	Museum/Herbarium	
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
Accuracy of Coordinates/GPS Error: <u>+/- 1</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
Observation Location: <u>U270371.0127</u> <u>1918517.833</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
Vegetation Community: <u>DESS / NNG</u>			
Landowner/Manager: <u>City of S.D. Parks &amp; Rec</u>			
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input type="checkbox"/> Fair to Good <input checked="" type="checkbox"/> Poor <input type="checkbox"/> Very Poor			
Surrounding land use: <u>Open Space / adjacent trail</u>			
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>Non-native grasses</u>		Management Recommendation/s: <u>Control non-native grasses</u>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit.			
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
<u>Deinandra fasciculata</u>	<u>40</u>		
<u>Adelpha californica</u>	<u>3</u>		
<u>Brachypodium distachyon</u>	<u>50</u>		
<u>Calochortus sordidus</u>	<u>1</u>		
<u>Isocoma menziesii</u>	<u>1</u>		
<u>Rhus integrifolia</u>	<u>1</u>		
<u>Nasella lepidota</u>	<u>1</u>		
<b>IV. SITE PHOTOMONITORING</b>			
Camera type: <u>CANON POWERSHOT A75</u>			
<u>U270371.021</u>	<u>1918517.833</u>	<u>E SE SSW</u>	<u>0.85m</u>
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle
			<u>flat</u>
			<u>213-218</u>
			Photo #
			File location/s
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments: <u>WESTERN SUBPOPULATION</u>			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

## **Photo 6. *Acanthomintha ilicifolia* (San Diego Thornmint) Penasquitos Canyon Observation # 3**



Panorama from Western edge of population, facing East, Southeast, South, Southwest.  
Panorama location is 6276371.021 191857.833 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Acanthomintha ilicifolia Common Name: San Diego Thymelae  
 Site Name: Salmon Springs - E. S. Spring Management Unit #: TBO  
 Date: 5/8/05 Management Regime: TBO  
 Surveyors and Affiliation/Agency: RPS #1  
Bob Miller City of San Diego MSCP  
Nancy Bragosa City of San Diego Planning

Species Found? ☒ Yes ☐ No

Total No. Individuals: 100 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 54.78 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☐ No ☒ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +10 1 ☒ meters ☐ feet

Observation Location: 0303376.7 1923491.2 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: open areas within MNC and SMC  
 Landowner/Manager: City of San Diego Park & Rec Open Space

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Open space, residential

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

mustard invasion

Management Recommendation/s:

control mustard - continue invasive removal efforts

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species = List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <u>Deinandra fasciculata</u> *	45			H <u>Bromus hordeaceus</u> *	1		
H <u>Brassica nigra</u>	15			H <u>Erodium</u> spp. *	2		
H <u>Bromus mabittensis</u> ssp. r *	15			H <u>Erigeron</u> spp. *	5		
S <u>Adiantum californicum</u>	5			H <u>Alfalfa</u> spp. *	1		
H <u>Acanthomintha ilicifolia</u>	3			H <u>Centauria melitensis</u> *	1		
S <u>Quercus dumosa</u>	3			H <u>Melilotus officinalis</u> *	<1		
S <u>Boerhaavia sarothroides</u>	5			H <u>Vulpia</u> spp. *	<1		
H <u>Phytolacca erecta</u>	1			H <u>Sonchus asper</u> *	<1		
				S <u>Antennaria californica</u>			

## IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

0303376.7 1923491.2

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 7. *Acanthomintha ilicifolia* (San Diego Thornmint)  
Sabre Springs East Subpopulation # 1**



Panorama from South edge of subpopulation, facing Northwest, North, Northeast, East.  
Panorama location is 6303390.7 1923506.3 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Acanthomintha ilicifolia* Common Name: *San Diego Thornmint*  
 Site Name: *Blue Springs - W Flat Subpop* Management Unit #: *TBD*  
 Date: *5/8/08* GPS *2* Management Regime: *TBD*  
 Surveyors and Affiliation/Agency: *Betsy Miller City of San Diego MSCP*  
*Nancy Bragado City of San Diego Planning*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *150* ☐ Exact ☒ Estimate (if not, why (if reason known or suspected)?  
 Population/Subpopulation Area: *15 x 10 m* ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? *8000 m<sup>2</sup> study site* ☐ Yes ☐ No ☒ Collected Previously *2005 pop data*  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: *+10* ☒ meters ☐ feet

Observation Location: *0303277.454 1923560.6625* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *Openings within NAC/SMC*

Landowner/Manager: *City of San Diego Park + Recreation Open Space*

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: *open space, residential*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*invasives around plot; low #'s within plot*

Management Recommendation/s:

*contain spread of invasives*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <i>Demandra fasciculata</i>	60			S <i>Atolopia californica</i>	3		
H <i>Erodium spp.</i> *	3			S <i>Saccharum pilularis</i>	2		
H <i>Brassica nigra</i> *	5			H <i>Pentstemon melitensis</i> *	3		
H <i>Sanctus asper</i> *	2			H <i>Argemone arvensis</i> *	1		
H <i>Acanthomintha ilicifolia</i>	5			S <i>Asplenium californicum</i>	1		
H <i>Avena barbata</i> *	1			H <i>Bomus diandrus</i> *	1		
H <i>Bomus hordeaceus</i> *	1						
H <i>Bomus madritensis ssp. r.</i> *	3						

## IV. SITE PHOTOMONITORING

Camera type: *Canon Powershot A75*

*0303277.454 1923560.6625* *S-SW-W* *50"* *slightly down* *136-189* *4/MSCP*  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 8. *Acanthomintha ilicifolia* (San Diego Thornmint)  
Sabre Springs West Flat Subpopulation # 2**



Panorama from Northwestern edge of subpopulation, facing South, Southwest, West.  
Panorama location is 6303277.454 1923560.662 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Acanthamintha ilicifolia* Common Name: *San Diego Thymus*  
 Site Name: *Salre Springs - Southern Subpop* Management Unit #: *760*  
 Date: *5/8/08* *CPS P43* Management Regime: *TBD*  
 Surveyors and Affiliation/Agency: *Johy Miller City of San Diego MSCP*  
*Nancy Zugardo City of San Diego CPIC*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *500* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *8000 m<sup>2</sup> study site* *15 x 15* *m* ☐ Exact (based on GPS mapping) ☒ Estimate  
 Collection (if not collected previously)? ☐ Yes ☐ No ☒ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: *+10* *1* ☒ meters ☐ feet  
 Observation Location: *6303165.84* *1923485.4* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *non-native grasslands scrub oak chaparral*  
 Landowner/Manager: *City of San Diego Park + Rec Open Space*  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: *open space, residential*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*high cover invasive species*

Management Recommendation/s:

*invasive species removal*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Rhus integrifolia</i>	3			<i>Apocynum arvense</i> *	5		
<i>Quercus dumosa</i>	15			<i>Horsetail</i>	1		
<i>Desmodium fasciculata</i>	45			<i>Vulpia</i> spp. *	1		
<i>Avena fatua</i> *	30			<i>Bromus hordeaceus</i> *	2		
<i>Sonchus oleraceus</i> *	2			<i>Lolium multiflorum</i> *	1		
<i>Adelphia californica</i>	5			<i>Apocynum angustifolium</i>	10		
<i>Calceolus splendens</i>	1			<i>Scutellaria nigra</i> *	2		
<i>Bromus madritensis</i> ssp. <i>rubens</i> *	8			<i>Glossaria</i> (10000 spp. C. W. C. A.)	<1		

## IV. SITE PHOTOMONITORING

Camera type: *Canon PowerShot A75*  
*6303165.84* *1923485.4* *SE-S-SW* *50 in* *~50 down* *179-181* *1/mSCP*  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



Fair to Good	50-80% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Form	Species	Cover
H	<i>Pentstemon melitensis</i> *	2
H	<i>Phalaris minor</i>	3
H	<i>Plantago erecta</i>	1
H	<i>Stachys agropyroides</i>	1
H	Unk grass	1
H	<i>Aconitum napellus</i>	3
H	Unk plant	1



**Photo 9. *Acanthomintha ilicifolia* (San Diego Thornmint)  
Sabre Springs Southern Subpopulation # 3**



Panorama from Southwestern edge of subpopulation, facing Southeast, South, Southwest.  
Panorama location is 6303165.7 1923485.4 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

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*Ambrosia pumila*  
San Diego Ambrosia



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Ambrosia pumilla* **Common Name:** *San Diego Ambrosia*  
**Site Name:** *MTRP - Kumeyaay Lake* **Management Unit #:** *N/A*  
**Date:** *5/17/08* **Management Regime:** *N/A*  
**Surveyors and Affiliation/Agency:** *Rebby Miller City of San Diego MSCP*  
*Rita Bener, City of San Diego MSCP*

**Species Found?** ☒ Yes ☐ No **If not, why (if reason known or suspected)?**  
**Total No. Individuals:** *45,000* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
**Population/Subpopulation Area:** *16809.00* *M<sup>2</sup>* ☐ Exact (based on GPS mapping) ☐ Estimate  
*see existing GPS data*  
**Collection (if not collected previously)?** ☐ Yes ☒ No ☐ Collected Previously *in 2008 pop data*  
**If yes:** **Collector** **Collection Number** **Museum/Herbarium**

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
**Accuracy of Coordinates/GPS Error:** *+/- < 1* ☒ meters ☐ feet  
**Observation Location:** *0321443.021* *1886016.476* ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
**Vegetation Community:** *non-native grasslands, disturbed CSS*  
**Landowner/Manager:** *City of San Diego P+R Open Space*  
**Overall Site Quality\*\*** ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
**Surrounding land use:** *open space, transportation, residential*  
**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):** *high cover non-native grasses; no evidence of volunteer tracks, etc*  
**Management Recommendation/s:** *invasive species removal/dethatch, if possible without damaging Ambu*

**III. ASSOCIATED SPECIES**  
**List dominant, subdominant and invasive species in/near target species observation area/management unit.**  
**Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).**

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Brassica nigra</i> *	3			<i>Hirschfeldia incana</i> *	4		
<i>Centauria uniflorus</i> *	3			<i>Hesperis matronalis</i> *	1		
<i>Isocoma menziesii</i>	3			<i>Lotus purshianus</i> var. p.	1		
<i>Hypochaeris glabra</i> *	4			<i>Holcus lanatus</i>	2		
<i>Eriogonum fasciculatum</i>	7			<i>Bromus hordeaceus</i> *	15		
<i>Erodium</i> spp.*	3			<i>Bromus diandrus</i> *	7		
<i>Daucus pumilla</i>	2			<i>Vulpia myuros</i> var. m.*	50		
<i>Ambrosia pumilla</i>	3			<i>Bromus madritensis</i> (f. sp. m.)	10		

**IV. SITE PHOTOMONITORING**  
**Camera type:** *Canon Powershot A7S*  
*0321443.021* *1886016.476* *N.W.N.E.E* *50 m* *50 down* *168-171* *L: MSCP*  
**Location [State Plane (ft)]** **Direction (facing)** **Height** **Camera Angle** **Photo #** **File location/s**  
**Location [State Plane (ft)]** **Direction (facing)** **Height** **Camera Angle** **Photo #** **File location/s**

**V. OTHER FIELD NOTES**  
**Other Field Notes/Comments:**

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Form	Species	Cover
	<i>Nasella pulchra</i>	1
	<i>Avena barbata</i>	1
	<i>Avena fatua</i>	1
	<i>Distichlis spicata</i>	2



**Photo 10. *Ambrosia pumila* (San Diego Ambrosia)  
Mission Trails Regional Park - Kumeyaay Lake**



Panorama from Northeastern edge of population, facing Northwest, North, Northeast, East.  
Panorama location is 6321443.021 1886016.476 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

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*Arctostaphylos glandulosa* ssp. *crassifolia*  
Del Mar Manzanita



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Arctostaphylos glandulosa crassifolia* **Common Name:** Del Mar Manzanita (CARM)  
**Site Name:** Carmel Mtn Pt 1 **Management Unit #:** N/A  
**Date:** 14 April 2008 **Management Regime:** N/A  
**Surveyors and Affiliation/Agency:** Kristy Forburger - City of SD MSCP,  
 Jasmine Wicks - HELIX Environmental

**Species Found?** ☒ Yes ☐ No  
**Total No. Individuals:** 100 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
**Population/Subpopulation Area:** 800 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate  
**Collection (if not collected previously)?** ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_  
 Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
**Accuracy of Coordinates/GPS Error:** +/- 4 meters ☐ feet  
**Observation Location:** 6265068.695 1922504.973 ☐ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
**Vegetation Community:** Southern Maritime Chaparral  
**Landowner/Manager:** City of S.D.  
**Overall Site Quality\*\*** ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
**Surrounding land use:** open space

**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):**  
 Active trail & horse use immediately east of observation area  
**Management Recommendation/s:**  
 Monitor trail usage & install barriers if needed/impacts occur

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Arctostaphylos glandulosa crassifolia</i>	20			<i>Malusma laurina</i>	1		
<i>Adenostoma fasciculata</i>	50			<i>Xylococcus bicolor</i>	1		
<i>Mimulus aurantiacus</i>	5			<i>Ceanothus velutinosus</i>	2		
<i>Salvia mellifera</i>	1						
<i>Yucca shottii</i>	1						
<i>Quercus dumosa</i>	1						
<i>Cryptantha</i> sp.	1						
<i>Brinus madri tensis</i>	1						

**IV. SITE PHOTOMONITORING**  
**Camera type:** Canon Powershot A7S  
**Location [State Plane (ft)]:** 6265068.695 1922504.973 **Direction (facing):** WNW **Height:** 45" **Camera Angle:** slightly downward **Photo #:** 174-170 **File location/s:** L:\MSCP\m...

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: USPD photo point from 2004

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 11. *Arctostaphylos glandulosa* ssp. *crassifolia*  
(Del Mar Manzanita)  
Carmel Mountain**



Panorama from Northwestern edge of population, facing West, Northwest, North.  
Panorama location is 6265668.69 1922504.97 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Arctostaphylos glandulosa* ssp. *crassifolia* Common Name: *Del Mar Manzanita*  
 Site Name: *Crest Open Space point 1* Management Unit #: *TBD*  
 Date: *4/8/08* Management Regime: *TBD*  
 Surveyors and Affiliation/Agency: *Betsy Miller, Kristy Forburger City of SD MSCP*  
*Jasmine Watts Helix Env*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *10* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *.23* *9086* ☐ Exact (based on GPS mapping) ☒ Estimate  
 Units

Collection (if not collected previously)? ☐ Yes ☐ No ☒ Collected Previously  
 If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: *+10* *<1* ☒ meters ☐ feet  
 Observation Location: *0253797.295* *1928025.320* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *Southern Maritime Chaparral*  
 Landowner/Manager: *City of SD Park + Recreation Open Space*  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: *open space; residential surrounding S, E, W*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*canyon edges in excellent condition, canyon bottom higher occurrence of non-natives; trails near Arctogland.*

Management Recommendation/s:

*limit recreational use to designated trails, install protective fencing near sensitive populations; remove invasive species like plant + pampas grass.*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Arctostaphylos glandulosa</i>	1			<i>Eriogonum fasciculatum</i>	1		
<i>Adenostoma fasciculata</i>	55			<i>Olunum parishii</i>	1		
<i>Salvia mellifera</i>	5			<i>Canthium verrucosus</i>	1		
<i>Psidium dumosum</i>	5			<i>Dudleya lanceolata</i>	1		
<i>Xylococcus bicolor</i>	3			<i>Franseria madroanensis ssp. rubens</i>	1		
<i>Mimulus aurantiacus</i>	2			<i>Lamprocarpa aurea</i>	1		
<i>Marah macrocarpus</i>	2			<i>Opuntia ericoides</i>	1		
<i>Rhus integrifolia</i>	2			<i>Zigadenus fremontii</i>	1		
<i>Lonicera subspicata</i>	1			<i>Pinus torreyana</i>	2		

## IV. SITE PHOTOMONITORING

Camera type: *Canon PowerShot A75*  
*0253797.295* *1928025.320* *NE, N, NW, W* *59"* *Down ~ 50°* *153-154* *L Monitoring*  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

*NE 153*  
*N - 154*  
*155*  
*NW - 65*  
*W - 64*  
*156*

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 12. *Arctostaphylos glandulosa* ssp. *crassifolia*  
(Del Mar Manzanita)  
Crest Canyon South Observation Area # 1**



Panorama from Western edge of population, facing Northeast, North, Northwest, West.  
Panorama location is 6253797.295 1928025.330 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Arctostaphylos glandulosa* sp. *crassifolia* Common Name: *Del Mar Manzanita* (004)

Site Name: Crest Cyn - Obs Area 2 (N) Management Unit #: TBD

Date: 14 APRIL 2008 Management Regime: TB7

Surveyors and Affiliation/Agency: Kristy Forbarger - City of SD MSCP, JASMINE WATTS - HELIX ENVIRONMENTAL

Species Found? ☒ Yes ☐ No

Total No. Individuals: 100 ☐ Exact ☒ Estimate (if not, why (if reason known or suspected)?)

Population/Subpopulation Area: ~3 acres ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☐ No ☒ Collected Previously (2006)

If yes: Collector: Collection Number: Museum/Herbarium:

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +10 4 ☒ meters ☐ feet

Observation Location: 1253841.04 1929942.05 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: Southern Maritime Chaparral

Landowner/Manager: City of San Diego Park & Rec Open Space

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Residences ~500' to South

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): random weed infestations (brake, wild F) erosion, pedestrian trails, invasive plantings in neighbors yards (pampas)

Management Recommendation/s: Control of weed grass (Erbanta) educational community outreach

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Pinus torreyana</i>	10			<i>Ceanothus dumosus</i>	1		
<i>Adenostoma fasciculata</i>	20			<i>Echraea</i> sp. *	1		
<i>Eriogonum fasciculatum</i>	4			<i>Bromus mackenzii</i> s. inens*	1		
<i>Quercus</i> sp. (scrub)	1			<i>Artichinum</i> sp.	1		
<i>Mimulus aurantiacus</i>	2			<i>Salvia mellifera</i>	1		
<i>Rhus integrifolia</i>	2			<i>Crassula</i> sp.	1		
<i>Dendromecon rigida</i>	1			<i>Psilocarphus</i> sp.	1		
<i>Eriophyllum confertiflorum</i>	1			<i>Dichelostemma capitatum</i>	1		
				<i>Xylococcus bicolor</i>	2		

**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A75 (new photo point - old could not be accessed)

1253841.04 1929942.05 NE, E 42" Flat 1107-110 L MSCP Monitoring

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: DDM pop observed in canyon bluff adjacent to and beneath Torrey Pines

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 13. *Arctostaphylos glandulosa* ssp. *crassifolia*  
(Del Mar Manzanita)  
Crest Canyon North Observation Area # 2**



Panorama from Southwestern edge of population facing Northeast, East.  
Panorama location is 6253841.04 1929942.65 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Arctostaphylos glandulosa crassifolia</u>		Common Name: <u>Del Mar Manzanita</u>					
Site Name: <u>Del Mar Mesa 1</u>		Management Unit #: <u>N/A</u>					
Date: <u>14 April 2008</u>		Management Regime: <u>N/A</u>					
Surveyors and Affiliation/Agency: <u>Kristy Forbarger - City of SD MSCP</u> <u>Jasmine Walters - Helix Environmental</u>							
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Total No. Individuals: <u>100</u>		If not, why (if reason known or suspected)?					
<input type="checkbox"/> Exact		<input checked="" type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)					
Population/Subpopulation Area: <u>1.1</u>		<input type="checkbox"/> Exact (based on GPS mapping) <input checked="" type="checkbox"/> Estimate					
Units: <u>acres</u>							
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously							
If yes: _____							
Collector: _____		Collection Number: _____					
		Museum/Herbarium: _____					
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>							
Accuracy of Coordinates/GPS Error: +/- <u>&lt;1</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet							
Observation Location: <u>U276448.518 1922053.776</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM							
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>							
Vegetation Community: <u>Southern Maritime Chaparral</u>							
Landowner/Manager: <u>City of San Diego</u>							
Overall Site Quality** <input checked="" type="checkbox"/> Very Good-Excellent <input type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input type="checkbox"/> Very Poor							
Surrounding land use: <u>open space</u>							
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>Mtn bike / hiking trail / horse trail</u> <u>residential to northwest of habitat</u>		Management Recommendation/s: <u>educational community outreach</u> <u>for bordering residential</u> <u>review of landscape concept plans</u> <u>(omit invasive species)</u>					
<b>III. ASSOCIATED SPECIES</b>							
List dominant, subdominant and invasive species in/near target species observation area/management unit.							
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).							
Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Adenostoma fasciculata</u>	<u>20</u>			<u>Eriophyllum confertiflorum</u>	<u>1</u>		
<u>Salvia mellifera</u>	<u>5</u>			<u>Xylococcus bicolor</u>	<u>2</u>		
<u>Quercus dumosa</u>	<u>30</u>			<u>Heteromeles arbutifolia</u>	<u>1</u>		
<u>Laurus scoparius</u>	<u>1</u>						
<u>Malosma laurina</u>	<u>2</u>						
<u>Mimulus aurantiacus</u>	<u>5</u>						
<u>Rhus integrifolia</u>	<u>3</u>						
<u>Arctostaphylos glandulosa crassifolia</u>	<u>2</u>						
<b>IV. SITE PHOTOMONITORING</b>							
Camera type: <u>Canon Powershot A7S</u>							
Location [State Plane (ft)]: <u>6276448.518 1922053.776</u>		Direction (facing): <u>N NE, E</u>					
Height: <u>36"</u>		Camera Angle: <u>flat / level</u>					
Photo #: <u>17780</u>		File location/s: <u>L: MSCP / Monitoring</u>					
Location [State Plane (ft)]: _____		Direction (facing): _____					
Height: _____		Camera Angle: _____					
Photo #: _____		File location/s: _____					
<b>V. OTHER FIELD NOTES</b>							
Other Field Notes/Comments: _____							

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 14. *Arctostaphylos glandulosa* ssp. *crassifolia*  
(Del Mar Manzanita)  
Del Mar Mesa Observation # 1**



Panorama from Western edge of population, facing North, Northeast, East.  
Panorama location is 6276448.518 1922053.776 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Arctostaphylos glandulosa ssp.</u>		Common Name: <u>Del Mar Manzanita</u>	
Site Name: <u>Del Mar Mesa - EAST</u>		Management Unit #: <u>TBD</u>	
Date: <u>6 JUNE 2008</u>		Management Regime: <u>TRD</u>	
Surveyors and Affiliation/Agency: <u>JENNIFER VAUGHAN - City of SD MSCP</u> <u>JASMINE WATTS - HELIX Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 20 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 17609.44 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate based on map est.

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: \_\_\_\_\_

Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4 ☐ meters ☐ feet

Observation Location: 4278460.109 1922149.694 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Chamise chaparral

Landowner/Manager: City of SD Parks & Rec

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
Trail (SDGE easement) and powerline to west and south of population

Management Recommendation/s:  
NA - no weeds observed

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Adenostema fasciculata</u>	<u>60</u>			<u>Lotus scoparius</u>	<u>1</u>		
<u>Arctostaphylos glandulosa crassifolia</u>	<u>4</u>			<u>Mimulus aurantiacus</u>	<u>25</u>		
<u>Nasella sp.</u>	<u>&lt;1</u>						
<u>Chrysogalum pumilum</u>	<u>&lt;1</u>						
<u>Quercus dumosa</u>	<u>1</u>						
<u>Xylococcus bicolor</u>	<u>1</u>						
<u>Peinandra fasciculata</u>	<u>&lt;1</u>						
<u>Navaretia haurata</u>	<u>&lt;1</u>						

### IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

4278460.109 1922149.694 NW, N, NE, E 1.1m 10° down 340-343 L. MSCP monitoring

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: \_\_\_\_\_

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 15. *Arctostaphylos glandulosa* ssp. *crassifolia*  
(Del Mar Manzanita)  
Del Mar Mesa Eastern Observation # 2**



Panorama from Southwestern edge of population, facing Northwest, North, Northeast, East.  
Panorama location is 6278460.109 1922149.69 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Arctostaphylos glandulosa ssp. crassifolia* Common Name: DEL MAR MANZANITA  
 Site Name: PENASQUITOS CANYON Management Unit #: TBD  
 Date: 6 JUNE 2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: JENNIFER VAUGHAN - CITY OF SD MSCP  
 JASMINE WAITS - HELIX Environmental

Species Found? ☒ Yes ☐ No

Total No. Individuals: 10 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 12068.73 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)?  
 If yes: ☐ Yes ☒ No ☐ Collected Previously

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4 ☒ meters ☐ feet

Observation Location: 0278065.510 1921539.40 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Chamise chaparral / Scrub oak chaparral  
 Landowner/Manager: City of SD Parks & Rec

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

minimal disturbance,  
 trail is closed

Management Recommendation/s:

NA

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Adenostoma fasciculata</i>	60			<i>Salvia mellifera</i>	1		
<i>Quercus dumosa</i>	25			<i>Rhus integrifolia</i>	1		
<i>Arctostaphylos glandulosa crassifolia</i>	1			<i>Xylococcus bicolor</i>	1		
<i>Chlorogalum pomeridianum</i>							
<i>Calochortus weedii</i>	<1						
<i>Amelanchier</i> sp.	<1						
<i>Selaginella cinerascens</i>	<1						
<i>Mimulus aurantiacus</i>	1						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

0278065.510 1921539.40 SE, S, SW 1.1m 15° down 352-354 L MSCP/monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: DENSE VEGETATION

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 16. *Arctostaphylos glandulosa* ssp. *crassifolia*  
(Del Mar Manzanita)  
Penasquitos Canyon**



Panorama from Northern edge of population, facing Southeast, South, Southwest.  
Panorama location is 6278665.56 1921539.48 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Arctostaphylos glandulosa* ssp. *crassifolia* Common Name: *Del Mar Manzanita (DDM)*

Site Name: *San Diego River Bluffs Obs 1(S)* Management Unit #: *TBD*

Date: *14 April 2008* Management Regime: *TBP*

Surveyors and Affiliation/Agency: *Kristi Forburger - City of SD MSCP, Jasmine Wilts - HPLX Environmental*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *100* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: *.29* *acres* ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: *+10* ☒ meters ☐ feet

Observation Location: *0257195.95* *1930511.32* ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: *Southern Maritime Chaparral*

Landowner/Manager: *City of SD Park + New Open Space*

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: *residential, open space*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): *Residential to southeast, I-5 to west, habitat restoration to north (open space), bluff erosion, invasive weeds + landscape plants*

Management Recommendation/s: *control of pampas, fountain grass, + landscape plants (ice plants + acacia)*

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Arctostaphylos glandulosa crassifolia</i>	5			<i>Rhus integrifolia</i>	2		
<i>Leptos scaparius</i>	2			<i>Pennisetum setaceum</i> *	2		
<i>Salvia mellifera</i>	6			<i>Cortaderia selloana</i> *	1		
<i>Conocidium dumosum</i>	1			<i>Bromus madritensis rubens</i> *	1		
<i>Conothus verrucosus</i>	12	✓		<i>Sambucus mexicana</i>	1		
<i>Helianthus scaparius</i>	1			<i>Marah macrocarpa</i>	1		
<i>Adenostoma fasciculatum</i>	15			<i>Dudleya edulis</i>	1		
<i>Malosma laurina</i>	5			<i>Xylococcus bicolor</i>	1		

**IV. SITE PHOTOMONITORING**

Camera type: *Canon Powershot A7S*

*0257195.95* *1930511.32* *NE, E, SE* *3'6"* *flat, slight downward tilt* *171-173* *L. MSCP*

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: *majority of DDM on top of bluff - small individuals, a few larger individuals in adjacent canyon*

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 17. *Arctostaphylos glandulosa* ssp. *crassifolia*  
(Del Mar Manzanita)  
San Dieguito River Bluffs Observation Area # 1**



Panorama from the Northern edge of population, facing Northeast, East, Southeast  
Panorama location is 6257195.95 1930511.32 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



*Bloomeria clevelandii*  
San Diego Goldenstar



© City of San Diego, 2004

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

<b>Scientific Name:</b> <u>Bloomeria clevelandii</u>		<b>Common Name:</b> <u>San Diego Goldenstar</u>	
<b>Site Name:</b> <u>Del Mar Mesa Obs 1</u>		<b>Management Unit #:</b> <u>TBA</u>	
<b>Date:</b> <u>29 April 2008</u>		<b>Management Regime:</b> <u>TBA</u>	
<b>Surveyors and Affiliation/Agency:</b> <u>Keli Balo - City of San Diego</u> <u>Jasmine Watten - Helix Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 36 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 02.24 M2 ☒ Exact (based on GPS mapping) ☐ Estimate  
see 2008 data

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

"BLCL - DMM - 2008" .shp  
- polygon = "BLCL2008NM"

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**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +/- 4 ☐ meters ☐ feet

Observation Location: 0200351.97 1924986.55 ☒ State Plane (feet) ☐ UTM

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**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: Vernal Pool / Chamise Chaparral

Landowner/Manager: City of San Diego Parks & Rec Open Space (MITPA)

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>area is fenced</u>	Management Recommendation/s: <u>→ control invasives</u>
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**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Bloomeria clevelandii</u>	<u>1</u>			<u>Filago sp.</u>	<u>1</u>		
<u>Deinandra fasciculata</u>	<u>7</u>			<u>Brodiaea orcuttii</u>	<u>1</u>		
<u>Navaretia hamata</u>	<u>2</u>			<u>Centaurea melitensis</u> *	<u>1</u>		
<u>Crocosmia canata</u>	<u>2</u>			<u>Cheeridium dumosum</u>	<u>1</u>		
<u>Osmodendron tenella</u>	<u>1</u>			<u>Vulpia myuros</u> +	<u>2</u>		
<u>Centaurea venustum</u> :	<u>1</u>			<u>Xylorhiza bicolor</u>	<u>1</u>		
<u>Pogogyne abramsii</u>	<u>1</u>			<u>Yucca shidigera</u>	<u>1</u>		
<u>Bromus madritensis rubens</u> *	<u>3</u>			<u>Selaginella sp.</u>	<u>3</u>		

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**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A75

<u>0200351.97</u>	<u>1924986.55</u>	<u>NW, W, SW, S, SE</u>	<u>1.1m</u>	<u>downward 15°</u>	<u>122-126</u>	<u>L MSCP</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

---

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: Some photo point for Pogogyne abramsii  
(\*NEW) population polygon - smaller pop. than in 2003

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back-of-form or instructions).

Continue on back if needed.



Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover / abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

	Cover
<i>Juncus bufonius</i>	1
<i>Adenostema fasciculata</i>	2
<i>Crassula aquatic</i>	1
<i>Callitriche marginata</i>	1
<i>Lilaea scilloides</i>	1
<i>Pilularia americana</i>	1
<i>Plantago elongata</i>	1

**Photo 18. *Bloomeria clevelandii* (San Diego Goldenstar)  
Del Mar Mesa Observation # 1**



Panorama from Northwestern edge of population, facing Northwest, West, Southwest, South, Southeast.  
Panorama location is 6280351.97 1924986.55 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

<b>Scientific Name:</b> <i>Bloomeria clevelandii</i>		<b>Common Name:</b> San Diego golden star	
<b>Site Name:</b> Del Mar Mesa Obs 2		<b>Management Unit #:</b> TBA	
<b>Date:</b> 29 April 2008		<b>Management Regime:</b> TBA	
<b>Surveyors and Affiliation/Agency:</b> Keli Balo - City of San Diego Jasmine Watts - HFLIX Environmental			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 20 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 586 34 ☒ M<sup>2</sup> ☐ Exact (based on GPS mapping) ☐ Estimate  
Units 2003 Bloomeria phylon

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: \_\_\_\_\_

Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

---

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +0 4 ☒ meters ☐ feet

Observation Location: 0280710.570 1924749.79 ☐ State Plane (feet) ☐ UTM

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**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: Vernal Pool, Southern mixed chaparral

Landowner/Manager: City of San Diego Parks & Rec Open Space (MHA)

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>Non-native grasses</u>	Management Recommendation/s: <u>area is fenced</u>
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**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Bloomeria clevelandii</i>	1			<i>Adonostema fasciculata</i>	5		
<i>Neinandra fasciculata</i>	10			<i>Vulpia myuros</i> *	2		
<i>Pogogyne abramsii</i>	8			<i>Bromus madritensis rubens</i> *	1		
<i>Eryngium aristulatum</i>	4			<i>Crassula aquatica</i>	1		
<i>Navaretia hamata</i>	3			<i>Eriogonum fasciculatum</i>	2		
<i>Crassula connata</i>	1			<i>Psilocompus brevissimus</i>	1		
<i>Centaureum venustum</i>	1			<i>Deschampsia dentonoides</i>	1		
<i>Avena sp.</i> *	1			<i>Callitriche marginata</i>	1		

---

**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A7S

<u>0280710.57</u>	<u>1924749.79</u>	<u>SW, W, NW, NE</u>	<u>1.1m</u>	<u>downward 10°</u>	<u>127-132</u>	<u>L: MSCP</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

---

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: Same photo point for Pogogyne abramsii Obs 2 + Eryngium aristulatum Obs 2

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

	cover
<i>Malosma laevis</i>	2
<i>Pitularia americana</i>	1
<i>Plantago elongata</i>	1
<i>Juncus bufonius</i>	1
<i>Opuntia</i> sp	1
<i>Brassica hirsuta</i> *	1
<i>Lythrum hyssopifolium</i> *	1
<i>Salvia mellifera</i>	1
<i>Filago</i> sp.	1
<i>Rhus integrifolia</i>	1
<i>Xylococcus bicolor</i>	1
<i>Osmodonia tenella</i>	1
<i>Alypogen</i> sp. ? (Unknown grass)	1
<i>Selaginella</i> sp.	1
<i>Chlorogallum perardium</i>	1



**Photo 19. *Bloomeria clevelandii* (San Diego Goldenstar)  
Del Mar Mesa Observation # 2**



Panorama from Southern edge of population, facing Southwest, West, Northwest, North, Northeast.  
Panorama location is 6280710.57 1924749.79 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Bloomeria clevelandii Common Name: SAN DIEGO Goldenstar  
 Site Name: EJST E110F #1 Management Unit #: N/A  
 Date: 4/21/08 Management Regime: N/A  
 Surveyors and Affiliation/Agency: Betsy Miller, City of San Diego, MSCP  
Kelli Bado, City of San Diego, MPRD

Species Found? ☒ Yes ☐ No  
 Total No. Individuals: 8,000-10,000 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 141.38 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_  
 Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet  
 Observation Location: 4319260.20 1891551.76 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: NON-NATIVE annual grassland  
 Landowner/Manager: CITY OF SAN DIEGO, Park and Recreation, open space  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
FIRE, NON-NATIVES - type conversion  
BIKE trail at east end of population  
 Management Recommendation/s:  
Manage fire regime  
continue to restrict access along abandoned roadway for vehicles

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H Bromus madritensis ssp rubens	10			H Bloomeria clevelandii	<5		
S Lotus scoparius	<1			S Isocoma menziesii	<1		
S Mimulus aurantiacus	<1			H Sisyrinchium bellum	<1		
H Avena fatua	10			H Eriophyllum confertiflorum	<1		
H Brachypodium distachyon	10			H Plantago erecta	<1		
H Centaurea melitensis	2			H Castilleja spp.	<1		
H Nassella	2			H Bromus hordeaceus	10		
H Erodium botrys	2			S Sania apiana	<1		

**IV. SITE PHOTOMONITORING**  
 Camera type: Canon Powershot A75  
 Location [State Plane (ft)]: 6319260.20 1891551.76 Direction (facing): N, SW, S, SE, E Height: 1.3M Camera Angle: +10° Photo #: 18-27 L: MSCP Monitoring: itering  
 Location [State Plane (ft)]: \_\_\_\_\_ Direction (facing): \_\_\_\_\_ Height: \_\_\_\_\_ Camera Angle: \_\_\_\_\_ Photo #: \_\_\_\_\_ File location/s: \_\_\_\_\_

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments:  
MORE associated species on BACK ->

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

H <i>Dichelostemma capitatum</i>	<2	S <i>Artemisia californica</i>	<2
H <i>Lonicera</i> spp.	<2	H <i>Silene gallica</i>	<2
H <i>Dienandra fasciculata</i>	5	unk grass	10
H <i>Filago</i> spp.	2	<i>Bloomeria crocea</i>	<1
S <i>Rhamnus crocea</i>	5	↳ Flowers not open	
H <i>Malusma laurina</i>	5	yet bud stalk up but not open	

Modified Tugger & Reighery Vegetation Condition Scale

Very Good-Excellent	50-100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high



**Photo 20. *Bloomeria clevelandii* (San Diego Goldenstar)  
East Elliot # 1**



Panorama from Southwestern edge of population, facing West, Southwest, South, Southeast, East.

Panorama location is 6319260.20 1891551.76 NAD83 State Plane California Zone 6 (feet)

Photos merged using Canon PhotoStitch, v. 3.1.

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

<b>Scientific Name:</b> <u>Bloomeria clevelandii</u>		<b>Common Name:</b> <u>San Diego Godwinia</u>	
<b>Site Name:</b> <u>East Elliot #2</u>		<b>Management Unit #:</b> <u>N/A</u>	
<b>Date:</b> <u>9/4/21/08</u>		<b>Management Regime:</b> <u>N/A</u>	
<b>Surveyors and Affiliation/Agency:</b> <u>Betsy Miller - City of San Diego - MSCP</u> <u>Kell Balo - City of San Diego - MSCP</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 400 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 488.82 M<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
Based on 2008 pop data

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 41 ☒ meters ☐ feet

Observation Location: 0317389.879 1894565.895 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Chacarral (SMC) Disturbed

Landowner/Manager: City of San Diego, Park and Recreation Department Open Space

Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☐ Poor ☒ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
roadway - edge effects (SDG&E)  
recovering SMC - fire

Management Recommendation/s:  
remove invasive species

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Lotus scoparius</u>	<u>10</u>			<u>Adiantum fasciculata</u>	<u>15</u>		
<u>Nyctelia harrisi</u>	<u>42</u>			<u>Malosoma californica</u>	<u>1</u>		
<u>Filago sp</u>	<u>2</u>			<u>Eriogonum fasciculatum</u>	<u>41</u>		
<u>*Eriogonum fasciculatum</u>	<u>42</u>			<u>*Lupinus albus</u>	<u>1</u>		
<u>Dianthus fasciculatus</u>	<u>2</u>			<u>Ceanothus sp</u>	<u>1</u>		
<u>Chorizanthe</u>	<u>41</u>			<u>Gutierrezia californica</u>	<u>5</u>		
<u>*Rhus microcarpa</u>	<u>7</u>			<u>Bloomeria clevelandii</u>	<u>1</u>		
<u>*Ammannia</u>	<u>5</u>			<u>Bare Dirt - roadway</u>	<u>30</u>		

### IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

<u>0317389.879</u>	<u>1894565.895</u>	<u>N, W, S</u>	<u>1.1</u>	<u>+ 5</u>	<u>28-37</u>	<u>L MSCP monitoring</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: lots bare areas, very sparse. Blocky - road in middle  
sample branches

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



H *Chlorogalum parviflorum* 1  
 S *Xylococcus bitor* 1

Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

## **Photo 21. *Bloomeria clevelandii* (San Diego Goldenstar) East Elliot # 2**



Panorama from Southeastern edge of population, facing North, West, South.  
Panorama location is 6319260.20 1891551.76 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

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## Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Bloomeria clevelandii* **Common Name:** San Diego Goldenstar

**Site Name:** East Elliott #3 **Management Unit #:** NA

**Date:** 7/2/08 **Management Regime:** NA

**Surveyors and Affiliation/Agency:** Betsy Miller - City of San Diego - MSCP  
Keli Ballo - City of San Diego - Metro

**Species Found?** ☒ Yes ☐ No

**Total No. Individuals:** 55 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

**Population/Subpopulation Area:** 3215.86 ☐ Exact ☒ Estimate (based on GPS mapping) ☐ Estimate  
Units: M2 Based on 2008 pop data

**Collection (if not collected previously)?** ☐ Yes ☒ No ☐ Collected Previously

**If yes:** Collector: Collection Number: Museum/Herbarium:

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

**Accuracy of Coordinates/GPS Error:** +/- 41 ☒ meters ☐ feet

**Observation Location:** 6316947.513 1895951.197 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

**Vegetation Community:** Disturbed Southern Mixed Chaparral

**Landowner/Manager:** City of San Diego, Park and Recreation Department Open Space

**Overall Site Quality\*\*** ☒ Very Good ☒ Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

**Surrounding land use:** Open Space

**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):**  
Non-natives/Invasives along roadway  
2003 Fire Scar

**Management Recommendation/s:**  
remove invasive species

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

**Species**=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Lesqueria californica</i>	40			<i>Lotus scoparius</i>	5		
<i>Adiantum tomentosum</i>	15			<i>Eriogonum fasciculatum</i>	2		
<i>Chlorogalum</i>	1			<i>Bloomeria clevelandii</i>	41		
<i>Axena fatua</i> *	2			Unknown grass	1		
<i>Plantago erecta</i>	5			<i>Navarretia hirsuta</i>	41		
<i>Crosetia conata</i>	2			<i>Ceanothus</i>	1		
<i>Rudbeckia hirta</i> *	1			<i>Dracopis sp.</i>	41		
<i>Bromus madritensis</i> *	1			<i>Gutierrezia californica</i>	1		

**IV. SITE PHOTOMONITORING**

**Camera type:** Canon Powershot 7S

**Location [State Plane (ft)]:** 6316947.513 **Direction (facing):** S. SW to NW **Height:** .9M **Camera Angle:** -5% **Photo #:** 38-42 **File location/s:** L:MSCP M

**V. OTHER FIELD NOTES**

**Other Field Notes/Comments:** Intact soil crusts

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

*Hypochaeris glabra* cl  
*Cret. hypopsis* cl  
*Ashy spik mos* 50% *Selaginella*

Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high



**Photo 22. *Bloomeria clevelandii* (San Diego Goldenstar)  
East Elliot # 3**



Panorama from Northwestern edge of population, facing South, Southwest, West, Northwest.  
Panorama location is 6316947.57 1895951.19 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Bloomeria Clevelandii Common Name: SAN DIEGO Goldenstar  
 Site Name: East Elliot #4 Management Unit #: N/A  
 Date: 4/1/08 Management Regime: N/A  
 Surveyors and Affiliation/Agency: Betsy Miller - City of San Diego - MSCP  
Fel Ballo - City of San Diego - Metro

Species Found? ☒ Yes ☐ No

Total No. Individuals: 2300 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 11540.84 M<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
Based on 2008 pop data

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 41 ☒ meters ☐ feet

Observation Location: 0317550.10 1898385.22 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Disturbed Southern Mixed Chaparral

Landowner/Manager: City of San Diego, Parks & Recreation Department, Open Space

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space, military lands

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

roadway - grading outside roadway  
erotics

Management Recommendation/s:

remove invasive species

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Acerostroma fasciculata</u>	<u>15</u>			<u>Filago spp.</u>	<u>1</u>		
<u>Eutierozia californica</u>	<u>4</u>			<u>Vulpia *</u>	<u>8</u>		
<u>Lothocia californica</u>	<u>10</u>			<u>Hypochaeris glabra</u>	<u>1</u>		
<u>Yucca whipplei</u>	<u>1</u>			<u>Comus mollisensis ssp. rubens</u>	<u>2</u>		
<u>Salvinella</u>	<u>3</u>			<u>Xylococcus bicolor</u>	<u>3</u>		
<u>Pentstemon sp.</u>	<u>2</u>			<u>Lathyrus frigidus</u>	<u>3</u>		
<u>Bloomeria Clevelandii</u>	<u>1</u>			<u>Centauria melitensis</u>	<u>41</u>		
<u>Navarretia laevis</u>	<u>1</u>			<u>Dichostema capitatum</u>	<u>41</u>		
				<u>bare ground</u>	<u>20</u>		

## IV. SITE PHOTOMONITORING

Camera type: Canon PowerShot 75

0317550.10 1898385.22 NE, N, NW, W, SW 1.05M ~10 43-49 L: MSCP Moitering  
 Location (State Plane (ft)) Direction (facing) Height Camera Angle Photo # File location/s

Location (State Plane (ft)) Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Kelghery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

*Linaria canadensis* <1  
*Crassula connata* 1  
*Osmadenia terrella* <1  
*Salvia mellifera* 1

*Castilleja exerta* <1  
*Erigeron* spp. <1

Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high



**Photo 23. *Bloomeria clevelandii* (San Diego Goldenstar)  
East Elliot # 4**



Panorama from Northwestern edge population, facing Northeast, North, Northwest, West, Southwest.

Panorama location is 6317550.10 189385.22 NAD83 State Plane California Zone 6 (feet)

Photos merged using Canon PhotoStitch, v. 3.1.

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

<b>Scientific Name:</b> <i>Bloomeria clevelandii</i>		<b>Common Name:</b> SD Goldenstar	
<b>Site Name:</b> East Elliot #5		<b>Management Unit #:</b> N/A	
<b>Date:</b> 4/21/08		<b>Management Regime:</b> N/A	
<b>Surveyors and Affiliation/Agency:</b> Betsy Miller City of San Diego - MSCP Kelli Bald City of San Diego - MSCP			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 1000 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 42486.04 M2 ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +/- 1 ☒ meters ☐ feet

Observation Location: 0316118.119 1894089.910 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: Disturbed Southern Mixed Chaparral

Landowner/Manager: City of San Diego, Parkland Recreation Open Space

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
roadway - abandoned  
non-natives  
fire

Management Recommendation/s:  
manage fire regime - continue to restrict access along abandoned roadway for vehicles

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Lathyrus superius</i>	3			<i>Avena fatua</i> *	<1		
<i>Adiantum fasciculatum</i>	10			<i>Mimulus aurantiacus</i>	<1		
<i>Dichostema capitatum</i>	<1			<i>Malosma laevis</i>	<1		
<i>Filago</i> sp.	1			<i>Burns modiolifolius</i> *	1		
<i>Ceanothus</i> sp.	5			<i>Erigeron capitatum</i>	<1		
<i>Gutierrezia californica</i>	10			<i>Bromus diandrus</i> *	1		
<i>Hypochaeris glabra</i> *	5			<i>Oxys brizoides</i>	<1		
Unknown grass	1			<i>Psilocarpus tenellus</i>			

**IV. SITE PHOTOMONITORING**

Camera type: Canon PowerShot 75

0316118.119 1894089.910 SW→S→SE 1.1M +30° 53-56 L-MSCP Monitoring

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

**V. OTHER FIELD NOTES**

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



Unknown grass 30%

*Bloomeria clelandi*: 2

Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

**Photo 24. *Bloomeria clevelandii* (San Diego Goldenstar)  
East Elliot # 5**



Panorama from Western edge of population, facing Southwest, South, Southeast.  
Panorama location is 6316118.12 1894089.91 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Bloomeria clevelandii</u>		Common Name: <u>San Diego Goldenstar</u>	
Site Name: <u>Marion Valley #1</u>		Management Unit #: <u>N/A</u>	
Date: <u>4/18/08</u>		Management Regime: <u>N/A</u>	
Surveyors and Affiliation/Agency: <u>Kelli Balo - City of San Diego, Metro</u> <u>Jennifer Vaughn - City of San Diego - MSCP</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 720,000 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 68512.40 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +/- 1 ☒ meters ☐ feet

Observation Location: 6406792.116 1788002.681 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: DCSS/ NNG

Landowner/Manager: CITY OF SAN DIEGO WATER DEPARTMENT

Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
Invasive plant species  
Fire regime  
Grazing

Management Recommendation/s:  
Weeding/dethatching

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Herb S</u>				<u>Shrub</u>			
<u>Avena fatua</u>	16		H	<u>Salvia melitensis</u>	22		S
<u>Bloomeria clevelandii</u>	30		H	<u>Art. californica</u>	22		S
<u>Rumex maritimus</u>	30		H	<u>Mab. malvifolia</u>	22		S
<u>Erodium cicutarium</u>	50		H	<u>Gutierrezia californica</u>	22		S
<u>Urtica dioica</u>	10		H	<u>Herb. Plantaginifolia</u>	22		H
<u>Juncus bufonius</u>	22		H	<u>Lab. Diclostima capitatum</u>	2		H
<u>Castilleja grandiflora</u>	22		H	<u>S. - Isorhamnus integrifolia</u>	22		S
<u>Catalpa baccata</u>	22		H	<u>S. Vauv.</u>	22		S

**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A75

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s
<u>6406792.116 1788002.681</u>	<u>S.W.N</u>	<u>.9M</u>	<u>15° down</u>	<u>13-17</u>	<u>L: MSCP/monitoring</u>
<u>6406792.116 1788002.681</u>	<u>N.E.S.E</u>	<u>.9M</u>	<u>15° down</u>	<u>25-30</u>	<u>L: MSCP/monitoring</u>

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: Some population died  
Dichroa in bloom

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

*Bromus hordeaceus* 30  
*Aly. pilomoss* 5  
*Melicago* sp 22  
*Lamarkia* sp 22  
*Lesqueria californica* 41

Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high



**Photo 25. *Bloomeria clevelandii* (San Diego Goldenstar)  
Marron Valley # 1a**



Panorama from Western edge of population, facing South, West, North.  
Panorama location is 6406792.12 1788002.68 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



**Photo 26. *Bloomeria clevelandii* (San Diego Goldenstar)  
Marron Valley # 1b**



Panorama from Western edge of population, facing North, East, Southeast.  
Panorama location is 6406792.12 1788002.68 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Bloomeria chlevelandii</u>		Common Name: <u>San Diego Gentian</u>	
Site Name: <u>Marion Valley #2</u>		Management Unit #: <u>N/A</u>	
Date: <u>4/18/08</u>		Management Regime: <u>N/A</u>	
Surveyors and Affiliation/Agency: <u>KEll BALO city of SAN DIEGO - METRO</u> <u>Jennifer Vaughn city of SAN DIEGO - MSCP</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: > 30,000 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 48512 40 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate BASED ON 2008 pop data

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- < 1 ☒ meters ☐ feet

Observation Location: 4407225.718 1787897.828 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Non-Native Annual Grassland / IDCSS

Landowner/Manager: City of San Diego, Water Department

Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): fire, grazing, roadway, weed cover

Management Recommendation/s: remove invasive species (weeds)

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Plantago erecta</u>	<u>5</u>		<u>14</u>	<u>Trifolium montanum</u>	<u>41</u>		<u>5</u>
<u>Salsola tragus</u> *	<u>5</u>		<u>14</u>	<u>Artemisia californica</u>	<u>41</u>		<u>5</u>
<u>Erodium botrys</u> *	<u>40</u>		<u>14</u>	<u>Platysma loricata</u>	<u>42</u>		<u>5</u>
<u>Bloomeria chlevelandii</u>	<u>30</u>		<u>14</u>	<u>Erigeron fasciculatus</u>	<u>41</u>		<u>5</u>
<u>Anna fatua</u> *	<u>10</u>		<u>14</u>	<u>Salvia spigelia</u>	<u>41</u>		<u>5</u>
<u>Bombyx madroanensis</u> *	<u>10</u>		<u>14</u>	<u>Chachalotus spurius</u>	<u>41</u>		<u>14</u>
<u>Tilas sp</u>	<u>42</u>		<u>14</u>				
<u>Osmorhiza brevidifolia</u>	<u>42</u>		<u>14</u>				

### IV. SITE PHOTOMONITORING

Camera type: Canon PowerShot 7S

6407225.718 1787897.828 S.W.S .9M 15° down 18-22 L: MSCP/Monitoring

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: dense 100/m<sup>2</sup> Rock

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 27. *Bloomeria clevelandii* (San Diego Goldenstar)  
Marron Valley # 2**



Panorama from Northeastern edge of population, facing North, East, Southeast.  
Panorama location is 6407225.72 1787897.83 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Bloomeria clevelandii* Common Name: San Diego Golden Pincushion  
 Site Name: Marion Valley #3 Management Unit #: N/A  
 Date: 4/18/2008 Management Regime: N/A  
 Surveyors and Affiliation/Agency: Kell Ballo City of San Diego - MEND  
 Jennifer Vaughan City of San Diego - MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 720000 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 68512.40 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Based on 2008 pop data

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4 meters ☒ meters ☐ feet  
 Observation Location: 6407990.151 1787523.484 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Non Native Annual Grassland  
 Landowner/Manager: City of San Diego - Water Department  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☐ Poor ☒ Very Poor  
 Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
 Fire regime  
 roadway  
 invasive (weed) species

Management Recommendation/s:  
 remove invasive species (weeds)

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
* <i>Bromus mediterrensis</i>	5		H	<i>Mimulus aurantiacus</i>	22		S
<i>Bromus diandrus</i>	20		H	<i>Artemisia californica</i>	22		S
<i>Avena sativa</i>	15		H	<i>Malosma laevis</i>	22		S
<i>Lolium multiflorum</i>	22		H	<i>Salvia apiana</i>	22		S
<i>Bristle reed</i>	2		H	<i>Eriogonum fasciculatum</i>	22		S
<i>Dioscorea californica</i>	22		H	<i>Grass</i>	22		S
<i>Leptochloa pycnostachya</i>	5		H	<i>Solidago</i>	22		H
<i>Cirsium</i>	5		H	<i>Bloomeria clevelandii</i>	10		H

## IV. SITE PHOTOMONITORING

Camera type: Canon PowerShot A75  
 6407990.151 1787523.484 N/A N/E E 9m 45° down 31-36 L: MSCP/monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: hillside below road - majority of bloom  
 750 m elevation

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

longshore  
plant community

Modified Trauger & Keighery Vegetation Condition Scale

Very Good-Excellent	50-100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high



**Photo 28. *Bloomeria clevelandii* (San Diego Goldenstar)  
Marron Valley # 3**



Panorama from Eastern edge of population, facing Northwest, North, Northeast, East.  
Panorama location is 6407990.151 1787523.484 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Bloomeria clevelandii</u>		Common Name: <u>SAN DIEGO GOLDENSTAN</u>	
Site Name: <u>Manor Valley #4</u>		Management Unit #: <u>N/A</u>	
Date: <u>4/8/08</u>		Management Regime: <u>N/A</u>	
Surveyors and Affiliation/Agency: <u>Kell Balo, City of San Diego - Metro</u> <u>Jennifer Vaughan - City of San Diego - MSCP</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 75,000 ☐ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 08512.40 m2 ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: \_\_\_\_\_

Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 1 ☒ meters ☐ feet

Observation Location: 407380.170 1787837.836 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: NON-NATIVE grassland

Landowner/Manager: City of San Diego, Water Department

Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☐ Poor ☒ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>Invasive species</u> <u>Fire regime</u> <u>Grazing</u>	Management Recommendation/s: <u>remove invasive species (weeds)</u>
--	--

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Erodium cicutarium</u>	<u>70</u>	<u>H</u>		<u>Taraxacum officinale</u>	<u>42</u>		<u>S</u>
<u>Bromus moenensis</u>	<u>42</u>	<u>H</u>		<u>Aristida</u>	<u>42</u>		<u>S</u>
<u>Gastrophysa verticillata</u>	<u>15</u>	<u>H</u>		<u>Bloomeria clevelandii</u>	<u>5</u>		<u>H</u>
<u>Aurea feta</u>	<u>10</u>	<u>H</u>		<u>Urtica californica</u>	<u>41</u>		<u>S</u>
<u>Dicentra capitata</u>	<u>47</u>	<u>H</u>		<u>Ambrosia artemisiifolia</u>	<u>42</u>		<u>H</u>
<u>Silene gallica</u>	<u>42</u>	<u>H</u>		<u>Cynodon dactylon</u>	<u>41</u>		<u>H</u>
<u>Nasturtium</u>	<u>47</u>	<u>H</u>		<u>Bromus diachne</u>	<u>42</u>		<u>H</u>

### IV. SITE PHOTOMONITORING

Camera type: Canon PowerShot A7S

407380.170 1787837.836 SE.E.NE.N .9M 0° 38-43 L: MSCP/monitoring

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: most Bloomeria on hillside below road  
not in flat area

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 29. *Bloomeria clevelandii* (San Diego Goldenstar)  
Marron Valley # 4**



Panorama from Northern edge of population, facing Southeast, East, Northeast, North.  
Panorama location is 6407990.151 1787523.484 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Eurotia clevelandii Common Name: San Diego goldenstar  
 Site Name: MISSION TRAILS regional park Management Unit #: N/A  
 Date: 4/10/08 Management Regime: N/A  
 Surveyors and Affiliation/Agency: Betsy Miller - City of San Diego - MSCP  
Jennifer Vaughan - City of San Diego - MSCP

Species Found? ☐ Yes ☒ No Fidelity of digitized data, or area burned (3, invaded by  
 If not, why (if reason known or suspected)? invasives  
 Total No. Individuals: 0 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 1255.77 M2 ☒ Exact (based on GPS mapping) ☐ Estimate  
 Units see 2001 pop data  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: +/- 1 ☒ meters ☐ feet  
 Observation Location: 0307533.854 1887727.084 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: disturbed CGS/NG remnant N.G.  
 Landowner/Manager: City of San Diego Park - Recreation open space  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: Military lands, transportation corridor, open space  
 Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
Invasive species maybe due to fire regime.  
 Management Recommendation/s:  
experiment with invasive species removal

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
* <u>Eurotium spp.</u>	15%			<u>Drhelostemma chapmanii</u>	3%		
* <u>Nassella spp.</u>	2%			<u>Artemisia californica</u>	7%		
* <u>Bromus madritensis spp.</u>	rubens 4%			<u>Adenostoma fasciculatum</u>	5%		
<u>Sisyrinchium bellum</u>	1%			<u>Sanicula arguta</u>	1%		
<u>Lotus scoparius</u>	12%			<u>Farquhar?</u>	1%		
<u>Eriophyllum confertiflorum</u>	21%			<u>Gnaphalium</u>	5%		
* <u>Avena spp.</u>	15%			<u>Malacothrix fasciculata</u>	1%		
* <u>Hypochaeris glabra</u>	3%			<u>Gutierrezia spp.</u>	71%		

**IV. SITE PHOTOMONITORING**  
 Camera type: Canon powershot A-75  
 Location [State Plane (ft)]: 0307533.854 1887727.084 S8 → N Direction (facing): 1.1 M Height: Flat Camera Angle: 3-8 Photo #: L MSCP/monitoring  
 Location [State Plane (ft)]: \_\_\_\_\_ Direction (facing): \_\_\_\_\_ Height: \_\_\_\_\_ Camera Angle: \_\_\_\_\_ Photo #: \_\_\_\_\_ File location/s: \_\_\_\_\_

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: Notes for site quality - rating based on high invasive species but little or no disturbance due to anthropogenic causes.

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions).

Continue on back if needed.

SPECIES	COVER
<i>Deinandra fauriculata</i>	2%

Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high



**Photo 30. *Bloomeria clevelandii* (San Diego Goldenstar)  
Mission Trails Regional Park**



Panorama from Northwestern edge of population, facing Southeast, South, Southwest, West, Northwest, North.  
Panorama location is 6307533.854 1887727.084 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Bloomeria clevelandii</u>		Common Name: <u>San Diego Calceolaria</u>	
Site Name: <u>Gray Lakes East (Pt 1)</u>		Management Unit #: <u>n/a</u>	
Date: <u>4/13/08</u>		Management Regime: <u>n/a</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller City of San Diego</u> <u>Jasmine Watts Helix Env</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: >1000 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 3026094.92 ft<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet

Observation Location: 0357208.406 1807472.481 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: open CSS (burned 2003), vernal pool

Landowner/Manager: City of San Diego Water Department

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
Off road vehicle disturbance at this time; high cover erodium spp.

Management Recommendation/s:  
continue access restrictions, continue weed/dethatching removal efforts

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
* <u>erodium spp</u>	<u>70</u>			<u>Calochortus splendans</u>	<u>&lt;1</u>		
<u>deinandra fasciculata</u>	<u>45</u>			<u>Narella pulchra</u>	<u>&lt;1</u>		
* <u>Bromus madriensis rubens</u>	<u>5</u>			* <u>Lolium multiflorum</u>	<u>&lt;1</u>		
* <u>Bromus verticillatus</u>	<u>5</u>			<u>Bloomeria clevelandii</u>	<u>20</u>		
<u>Lotus scoparius</u>	<u>2</u>			<u>Sisyrinchium bellum</u>	<u>&lt;1</u>		
* <u>Vulpia spp</u>	<u>&lt;1</u>			<u>Lepidium spp</u>	<u>&lt;1</u>		
<u>Isocoma menziesii</u>	<u>8</u>						
<u>Eriogonum fasciculatum</u>	<u>4</u>						

**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A7S

0357208.406 1807472.481 NW, NW, NW, N 1.1m ~50° down 88-90 L: MSCP

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: notes from site quality: high cover of erodium spp, off other invasive species, low evidence of disturbance.

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 31. *Bloomeria clevelandii* (San Diego Goldenstar)  
Otay Lakes East Observation # 1**



Panorama from Northeastern edge of population, facing Northwest, North.  
Panorama location is 6357208.466 1807472.481 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Blechnum clevelandii* Common Name: San Diego goldenbush  
 Site Name: Otay Lakes West (Pt 2) Management Unit #: N/A  
 Date: 4/15/08 Management Regime: N/A  
 Surveyors and Affiliation/Agency: Betsy Miller - City of San Diego - MSCP  
 Jasmine Walsh - Helix Environmental

Species Found? ☒ Yes ☐ No

Total No. Individuals: 5000 (~5000) ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 3626049.92 ft<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 5' ☒ meters ☐ feet  
 Observation Location: 6356421.867 1807493.77 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: open CSS (burned 2003), vernal pool  
 Landowner/Manager: City of San Diego Water Dept  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

erodium spp - high cover

Management Recommendation/s:

continue access control and  
invasive species/dethatch  
removal

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Erodium</i> spp.	40			<i>Calochortus splendens</i>	<1		
<i>Demianandra fasciculata</i>	45			<i>Blechnum clevelandii</i>	20		
<i>Bromus madroñensis sprengens</i>	5			<i>Sisyrinchium bellum</i>	41		
<i>Bromus hordeaceus</i>	3			<i>Lepidium</i> spp.	5		
<i>Cressa tuxillensis</i>	2			<i>Plantago erecta</i>	3		
<i>Lolium scoparium</i>	2			<i>Brodiaea jolonensis</i>	<1		
<i>Isocoma menziesii</i>	3			<i>Cuscuta</i> spp.	15		
<i>Eriogonum fasciculatum</i>	4			<i>Erygium aristulatum</i>	1		

## IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A7S  
 Location [State Plane (ft)]: 6356421.867 1807493.77 Direction (facing): N, NE, E Height: 1.1 m Camera Angle: -15° down Photo #: 98-102 4/24/08 File location/s: L: MSCP/monitoring  
 Location [State Plane (ft)]: \_\_\_\_\_ Direction (facing): \_\_\_\_\_ Height: \_\_\_\_\_ Camera Angle: \_\_\_\_\_ Photo #: \_\_\_\_\_ File location/s: \_\_\_\_\_

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 32. *Bloomeria clevelandii* (San Diego Goldenstar)  
Otay Lakes East Observation # 2**



Panorama from Southeastern edge of population, facing North, Northeast, East.  
Panorama location is 6356421.86 1807483.77 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



*Brodiaea orcuttii*  
Orcutt's Brodiaea



© Scott McMillan, 2001



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Brodiaea occulta</u>		Common Name: <u>Orcutt's Brodiaea</u>	
Site Name: <u>Carroll Canyon</u>		Management Unit #: <u>n/a</u>	
Date: <u>4/22/08</u>		Management Regime: <u>n/a</u>	
Surveyors and Affiliation/Agency: <u>Bob Miller City of San Diego</u> <u>Jasmine Watts Helix Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 100 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 1046.45 M2 ☒ Exact (based on GPS mapping) ☒ Estimate  
Units Based on 2005 pop data

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet

Observation Location: 6282439.860 1907633.765 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Vernal pool, openings in chamise chaparral

Landowner/Manager: City of San Diego Park and Recreation Open Space

Overall Site Quality\*\* see note ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: residential, open space, quarry

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
illegal trespass + dumping have been recorded previously - none noted this survey

Management Recommendation/s:  
continue restricting access + maintaining fences/signs

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>H. Deinandra fasciculata</u>	<u>60</u>			<u>H. Nanargia nemata</u>	<u>1</u>		
<u>H. Centaurea venustum</u>	<u>1</u>			<u>H. Erodium cicutarium*</u>	<u>5</u>		
<u>H. Brodiaea occulta</u>	<u>5</u>			<u>H. Chorizanthe limbrata</u>	<u>1</u>		
<u>H. Vulpia spp*</u>	<u>15</u>			<u>H. Pogogyne abramsii</u>	<u>1</u>		
<u>H. Crassula aquatica</u>	<u>15</u>			<u>H. Lythrum hyssopifolium*</u>	<u>1</u>		
<u>H. Selaginella spp.</u>	<u>2</u>						
<u>H. CROCEA MARITIMA</u>	<u>5</u>						
<u>H. Plantago elongata</u>	<u>30</u>						

### IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

<u>6282439.860</u>	<u>1907633.765</u>	<u>E-SE-S-Sul</u>	<u>1.2 m</u>	<u>40° down</u>	<u>63-66</u>	<u>MSCP monitor</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: population extends south across abandoned roadway (see 2005 GPS data); much denser S of road than in A1 area (monitored area)

NOTE for Overall Site Quality: appears to be old bulldozer scrape (~1980) but low invasive o/p cover

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 35. *Brodiaea orcuttia* (Orcutt's Brodiaea)  
Carroll Canyon**



Panorama from Southern edge of population, facing East, Southeast, South, Southwest.  
Panorama location is 6282439.860 1907633.765 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Brodiaea orcutii*

Common Name: Orcutt's Brodiaea

Site Name: Del Mar MESA Obs. #1

Management Unit #: N/A

Date: 4/24/08

Management Regime: N/A

Surveyors and Affiliation/Agency: Kelli Ballo - City of San Diego, Metro  
Jasmine Watts - Helix Environmental

Species Found? ☒ Yes ☐ No

Total No. Individuals: 500

☐ Exact

☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 135.45

m<sup>2</sup>  
Units

☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)?  
If yes: \_\_\_\_\_

☐ Yes

☒ No

☐ Collected Previously

Based on 2008 pop data

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1

☒ meters

☐ feet

Observation Location: 4280079 321

1925054.79

☒ State Plane (feet)

☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: vernal pool / chamise chaparral

Landowner/Manager: City of San Diego Park and Recreation Open Space MHPA

Overall Site Quality\*\* ☒ Very Good-Excellent

☐ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Area is fenced,  
NON-NATIVE GRASS COVER HIGH

Management Recommendation/s:

control non-native grasses

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <i>Brodiaea orcutii</i>	2			S <i>Adenostema fasciculatum</i>	1		
H <i>Eryngium aristulatum</i>	3			H <i>Sisyrinchium bellum</i>	5		
H <i>Delandrea fasciculata</i>	35			H <i>Selaginella</i> ssp.	1		
H <i>Navaretia hamata</i>	2			H <i>Juncus bufonius</i>	1		
H <i>Bromus madritensis</i> ssp. <i>rubens</i>	2			S <i>Isocoma menziesii</i>	3		
H <i>Vulpia myuros</i>	2			H <i>Hypochaeris glabra</i>	1		
H <i>Crassula conata</i>	1			H <i>Nastella pulchra</i>	1		
H <i>Psilocarphus brevissimus</i>	1						

## IV. SITE PHOTOMONITORING

Camera type: Cannon Powershot A75

6280079-321 1925054.79 NW, N, NE, E

Location [State Plane (ft)]

Direction (facing)

1M  
Height

10° downward  
Camera Angle

117-121  
Photo #

L: MSCP Monitoring  
File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: same photopoint for *Eryngium aristulatum*

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 33. *Brodiaea orcuttia* (Orcutt's Brodiaea)  
Del Mar Mesa Observation # 1**



Panorama from Northeastern end of population, facing Northwest, North, Northeast, East.  
Panorama location is 6280079.32 1925054.79 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Brodiaea orcutii</u>		Common Name: <u>orcutt's Brodiaea</u>	
Site Name: <u>Del Mar Mesa obs. #2</u>		Management Unit #: <u>TBA</u>	
Date: <u>4/29/08</u>		Management Regime: <u>TBA</u>	
Surveyors and Affiliation/Agency: <u>Kell Ballo - City of San Diego - Memo</u> <u>Jasmine Walsh - Helix Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: ~1000 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 2301.67 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: \_\_\_\_\_

Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +/- 4 ☐ meters ☐ feet

Observation Location: 4284195.62 1925670.321 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: vernal pool / scrub oak chaparral

Landowner/Manager: City of San Diego, Park and Recreation, open space

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>NON-NATIVE grasses</u>	Management Recommendation/s: <u>area is fenced</u>
--	---

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Erodiaea orcutii</u>	<u>3</u>			<u>Adenostoma fasciculata</u>	<u>1</u>		
<u>Eriogonum aristolatum</u>	<u>2</u>			<u>Quercus berberidifolia</u>	<u>1</u>		
<u>Delandria fasciculata</u>	<u>80</u>			<u>Crassula aquatica</u>	<u>1</u>		
<u>Sisyrinchium helianthi</u>	<u>3</u>			<u>Hypochaeris glabra</u> *	<u>1</u>		
<u>Bromus madritensis ssp. rubens</u> *	<u>1</u>			<u>Nassella sp.</u>	<u>1</u>		
<u>Brunnera sp.</u>	<u>1</u>			<u>Polygonum sp.</u>	<u>1</u>		
<u>Navaretia hamata</u>	<u>1</u>			<u>Gastrophysalis ventricosum</u>	<u>1</u>		
<u>Volva myuros</u> *	<u>1</u>						

**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A7S

<u>4284195.62</u>	<u>1925670.321</u>	<u>W, NW, N, NE</u>	<u>1M</u>	<u>Tilt</u>	<u>133-137</u>	<u>L. MSCP/monitoring</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: Need to GPS observation point  
see field map

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 34. *Brodiaea orcuttia* (Orcutt's Brodiaea)  
Del Mar Mesa Observation # 2**



Panorama from Northeastern end of population, facing West, Northwest, North, Northeast.  
Panorama location is 6284195.62 1925670.321 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <i>Brodiaea orcuttii</i>		Common Name: <i>Orcutt's brodiaea</i>	
Site Name: <i>General Dynamics EFT (A)</i>		Management Unit #: <i>TBD</i>	
Date: <i>5/6/05</i>		Management Regime: <i>TBD</i>	
Surveyors and Affiliation/Agency: <i>Patty Miller City of San Diego MSCP</i> <i>Patty Rodriguez CDFG</i>			
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Total No. Individuals: <i>2500</i>		If not, why (if reason known or suspected)?	
<input type="checkbox"/> Exact		<input checked="" type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)	
Population/Subpopulation Area: <i>3501.21</i>		<input checked="" type="checkbox"/> Exact (based on GPS mapping) <input type="checkbox"/> Estimate	
		<i>see GPS mapping 2005</i>	
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Collected Previously	
If yes: _____			
Collector	Collection Number	Museum/Herbarium	
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
Accuracy of Coordinates/GPS Error: +/- <i>&lt; 1</i> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
Observation Location: <i>W291939.00</i> <i>1880820.84</i> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
Vegetation Community: <i>DRSS, normal pool</i>			
Landowner/Manager: <i>PRIVATE ~ LNR KEARNY MESA INC.</i>			
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input checked="" type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input type="checkbox"/> Very Poor			
Surrounding land use: <i>transportation, industrial/office park</i>			
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <i>well-traveled path on N side of site</i>		Management Recommendation/s: <i>continue access restrictions/signage</i>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit.			
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover'*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
H <i>Brodiaea orcuttii</i>	15		
H <i>Diandra fasciculata</i>	50		
H <i>Eryngium cristulatum</i>	10		
H <i>Psilocarphus brevissimus</i>	7		
H <i>Pogogyne a. bransii</i>	2		
H <i>Lythrum hyssopifolium*</i>	2		
H <i>Vulpia</i> spp. *	2		
S <i>Eriogonum fasciculatum</i>	5		
H <i>Erodium</i> spp. *	7		
H <i>Navarretia tomentosa</i>	1		
H <i>Eriophyllum confertiflorum</i>	1		
S <i>Isocoma menziesii</i>	1		
S <i>Baccharis sarothroides</i>	5		
S <i>Artemisia californica</i>	15		
S <i>Opuntia</i> spp.	2		
S <i>Xylococcus bicolor</i>	1		
H <i>Centaurea melitensis</i>	1		
<b>IV. SITE PHOTOMONITORING</b>			
Camera type: <i>Canon PowerShot A75</i>			
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle
<i>6291939.00</i> <i>1880820.84</i>	<i>SE-S-SW-W</i>	<i>1.1 m</i>	<i>~10° down</i>
			Photo #
			File location/s
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle
			Photo #
			File location/s
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments: <i>Site in excellent condition given isolated (developed) location</i>			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 36. *Brodiaea orcuttia* (Orcutt's Brodiaea)  
General Dynamics Eastern Observation # 1**



Panorama from Southwestern edge of population, facing Southeast, South, Southwest, West.  
Panorama location is 6291939.00 1880820.84 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u><i>Brodiaea orecutia</i></u>		Common Name: <u>Orcutt's Brodiaea</u>	
Site Name: <u>General Dynamics K1 (Pt 2)</u>		Management Unit #: <u>TBD</u>	
Date: <u>5/16/08</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller City of San Diego</u> <u>Randy Rodriguez CDFG</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 250 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 1028.404 M<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
Units see ETS data 2005

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 21 ☒ meters ☐ feet

Observation Location: 6291522.83 1880729.22 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: DCSS, vernal pools

Landowner/Manager: private, check parcel boundary

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: transportation, industrial/business park

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
minimal; volunteer trail on N side of property; small patch mustard sul of abutment point

Management Recommendation/s:  
maintain access restrictions/signage

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <i>Drinandra fasciculata</i>	60			H <i>Psilocarphus brevissimus</i>	5		
S <i>Eriogonum fasciculatum</i>	5			H <i>Polypogon monspeliensis</i>	10		
S <i>Isocoma menziesii</i>	3			H <i>Unit grass - small</i>	2		
H <i>Peggyne obconica</i>	25			H <i>Crucula aquatica</i>	2		
H <i>Brodiaea orecutia</i>	3						
H <i>Erodium spp.*</i>	7						
H <i>Hypochaeris glabra*</i>	1						
H <i>Deschampsia cespitosa</i>	1						

### IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

<u>6291522.83</u>	<u>1880729.22</u>	<u>Sul-W - NW - N</u>	<u>1.1</u>	<u>~10° down</u>	<u>159-106</u>	<u>L: MSCP / monitoring</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: \_\_\_\_\_

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 37. *Brodiaea orcuttia* (Orcutt's Brodiaea)  
General Dynamics Western Observation # 2**



Panorama from Southern edge of population, facing Southwest, West, Northwest, North.  
Panorama location is 6291522.83 1880729.22 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Bradiaea oreuthii</u>		Common Name: <u>Orcutt's bradiaea</u>	
Site Name: <u>Nobel Drive</u>		Management Unit #: <u>N/A</u>	
Date: <u>22 April 2008</u>		Management Regime: <u>N/A</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller - City of San Diego MSCP</u> <u>Jasmine Watts - HELLX Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 10 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 9.9 ☐ Exact (based on GPS mapping) ☒ Estimate  
Units 2005 Mapping

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 4 ☐ meters ☐ feet

Observation Location: 0271105.37 1896318.934 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: vernal pool, non-native grassland

Landowner/Manager: City of San Diego Park and Recreation

Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor

Surrounding land use: restoration

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

surrounded by on-going invasive plant removal project + grass thatching

Management Recommendation/s:

continue invasive plant removal keep up fenced

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Psilocarphus brevissimus</u>	<u>10</u>			<u>Erodium cicutarium</u>	<u>25</u>		
<u>Dawsonia cuspidata</u>	<u>1</u>			<u>Adiantum fasciculatum</u>	<u>5</u>		
<u>Bradiaea oreuthii</u>	<u>1</u>			<u>Phalaris sp.</u>	<u>1</u>		
<u>Navarretia foensolin</u>	<u>1</u>			<u>Juncus bufonius</u>	<u>2</u>		
<u>Lythrum hyssopifolia</u>	<u>3</u>			<u>Bromus hordeaceus</u>	<u>1</u>		
<u>Deschampsia danthoides</u>	<u>2</u>			<u>Castilleja exserta</u> (dead)	<u>1</u>		
<u>Cotula coronopifolia</u>	<u>3</u>			<u>Adiantum fasciculatum</u>			
<u>Polyodon monstrosus</u>	<u>1</u>			<u>Eriogonum fasciculatum</u>	<u>15</u>		

### IV. SITE PHOTOMONITORING

Camera type: Canon PowerShot A7S

Location [State Plane (ft)]: 0271105.37 1896318.934 Direction (facing): NW, W, SW, S Height: 0.9m Camera Angle: downward 20° Photo #: 82-87 File location/s: 4: MSCP/monitoring

### V. OTHER FIELD NOTES

Other Field Notes/Comments: \_\_\_\_\_

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

SPECIES	Cover
* <i>Bromus madritensis rubens</i>	2
* <i>Nassella pulchra</i>	4
* <i>Bromus diandrus</i>	1
* <i>Hypochaeris glabra</i>	1
* <i>Avena</i> sp.	1

**Photo 38. *Brodiaea orcuttia* (Orcutt's Brodiaea)  
Nobel Drive**



Panorama from Northwestern end of population, facing Northwest, West, Southwest, South.  
Panorama location is 6271105.37 1896318.834 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

<b>Scientific Name:</b> <i>Brodiaea orcuttii</i>		<b>Common Name:</b> Orcutt's brodiaea	
<b>Site Name:</b> USIU / Scripps Miramar Ranch		<b>Management Unit #:</b> N/A	
<b>Date:</b> 22 April 2008		<b>Management Regime:</b> N/A	
<b>Surveyors and Affiliation/Agency:</b> Betsy Miller - City of San Diego Jasmine Watts - Helix Environmental			
<b>Species Found?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>burned in 2003 fires inundated w/ weeds</u> If not, why (if reason known or suspected)?			
<b>Total No. Individuals:</b> <u>0</u> <input type="checkbox"/> Exact <input type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)			
<b>Population/Subpopulation Area:</b> <u>1195.89</u> <u>m<sup>2</sup></u> <input checked="" type="checkbox"/> Exact (based on GPS mapping) <input type="checkbox"/> Estimate Units <u>2003 data</u>			
<b>Collection (if not collected previously)?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously If yes:			
Collector		Collection Number	Museum/Herbarium
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
<b>Accuracy of Coordinates/GPS Error:</b> +/- <u>&lt; 1</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
<b>Observation Location:</b> <u>6302393.501</u> <u>1905898.594</u> <input type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
<b>Vegetation Community:</b> <u>Non-native grassland</u>			
<b>Landowner/Manager:</b>			
<b>Overall Site Quality**</b> <input type="checkbox"/> Very Good-Excellent <input type="checkbox"/> Fair to Good <input checked="" type="checkbox"/> Poor <input type="checkbox"/> Very Poor			
<b>Surrounding land use:</b> <u>Open space (educational institution/military)</u>			
<b>Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):</b> <u>burned in 2003</u>		<b>Management Recommendation/s:</b> <u>Weed invasive grasses and thistle patches</u>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit.			
Species=List all species (sci. name). Use * to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
<i>Erodium cicutarium</i> *	80		
<i>Bromus madritensis</i> rubens *	10		
<i>Bromus hordeaceus</i> *	8		
<i>Vulpia</i> sp. *	8		
<i>Sisyrinchium bellum</i>	5		
<i>Carduus pycnocephalus</i> *	2		
<i>Sidalcea malvaeflora</i>	1		
<i>Dichelosperma capitatum</i>	1		
Species	Cover	Coll?	Coll. #
<i>Nassella pulchra</i>	1		
<i>Avena</i> sp. *	2		
<i>Hypochaeris glabra</i> *	8		
<i>Isocoma menziesii</i>	1		
<i>Vicia</i> sp. ( <i>V. villosa</i> ) *	5		
<i>Deinandra fasciculatus</i>	10		
<i>Bromus diandrus</i> *	1		
<i>Juncus dubius</i>	1		
<i>Centaurea melitensis</i> *	1		
<b>IV. SITE PHOTOMONITORING</b>			
<b>Camera type:</b> <u>Canon Powershot A7S</u>			
<u>6302393.501</u>	<u>1905898.594</u>	<u>S.W.S.E.E</u>	<u>1.2 m</u>
Location [State Plane (ft)]	Direction (facing)	Height	
	<u>downward 10°</u>	<u>57-62</u>	<u>L-MSCP/mon</u>
	Camera Angle	Photo #	File location/s
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments:			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 39. *Brodiaea orcuttia* (Orcutt's Brodiaea)  
USIU/Scripps Miramar Ranch**



Panorama from Southern end of population, facing Southwest, South, Southeast, East.  
Panorama location is 6302393.50 1905898.59 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



*Ceanothus verrocosus*  
Wart – Stem Lilac



© Lawrence M. Kelly, 2008



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Coanothus verrucosus

Common Name: Wart-stemmed Coanothus

Site Name: Carmel Mountain

Management Unit #: TBD

Date: 6 JUNE 2008

Management Regime: TBD

Surveyors and Affiliation/Agency: JENNIFER VAUGHAN - CITY OF SD MSCP

JASMINE WATTS - HELIX Environmental

Species Found? ☒ Yes ☐ No

Total No. Individuals: 200 + ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 20270.56 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4 ☒ meters ☐ feet

Observation Location: 0205745.126 1919909.532 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coanothus chaparral / Southern mixed chaparral

Landowner/Manager: City of SD Parks + Rec

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
Hiking trail east of population,  
active construction to the southwest

Management Recommendation/s:

NONE

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Coanothus verrucosus</u>	<u>60</u>						
<u>Melospiza linna</u>	<u>5</u>						
<u>Xylococcus bigler</u>	<u>2</u>						
<u>Asterostema fasciculata</u>	<u>3</u>						
<u>Hebea fasciculata</u>	<u>1</u>						
<u>Scleranthus cinnamom</u>	<u>1</u>						
<u>Eriogonum fasciculatum</u>	<u>1</u>						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

0205745.126 1919909.532 SW W. NW N 1.1m 10° down 344-347 L. MSCP

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: protected vernal pool + dudleya brown areas

immediately north east of photo point

Will Digitize new pop for 2009

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 40. *Ceanothus verrucosus* (Wart-Stem Lilac)  
Carmel Mountain**



Panorama from Southwestern edge of population, facing Southwest, West, Northwest, North.  
Panorama location is 6265745.126 1919909.53 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Ceanothus velutinus</u>		Common Name: <u>Wart-stemmed Ceanothus</u>	
Site Name: <u>Crest Canyon</u>		Management Unit #: <u>TBD</u>	
Date: <u>6 JUNE 2008</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>JENNIFER VAUGHAN - CITY OF SD MSCP</u> <u>JASMINE WATTS - HELIX Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 1 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 1529.106 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate Based on map

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: \_\_\_\_\_

Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +10 4 ☐ meters ☐ feet

Observation Location: 10253649.02 1929700.50 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Southern Mixed Chaparral

Landowner/Manager: City of SDNH Parks & Rec.

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): INVASIVE SPECIES

Management Recommendation/s: NONE

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Adenostema fasciculatum</u>	<u>25</u>			<u>Rhamnus crocea</u>	<u>1</u>		
<u>Arctostaphylos glandulosa classifolia</u>	<u>5</u>						
<u>Eriogonum fasciculatum</u>	<u>3</u>						
<u>Piptatherum nigraceum *</u>	<u>2</u>						
<u>Pinus torreyana</u>	<u>5</u>						
<u>Silva mellifera</u>	<u>21</u>						
<u>Cardionema ramosissimum</u>	<u>21</u>						
<u>Ceanothus velutinus</u>	<u>21</u>						

### IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

10253649.02 1929700.50 E, S, S, W 1.1m 10° JLD 378-351 L: MSCP

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

\_\_\_\_\_  
Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: Good location for Red Mar Manzanita (~10 individuals)

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

## **Photo 41. *Ceanothus verrucosus* (Wart-Stem Lilac) Crest Canyon**



Panorama from Southwestern end of population, facing East, Southeast, South, Southwest.  
Panorama location is 6253649.02 1929700.56 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



*Cordylanthus orcuttianus*  
Orcutt's Bird's Beak



© City of San Diego, 2005



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Cordylanthus oregonianus* Common Name: Orcutt's Bird's Beak  
 Site Name: OTAY RIVER VALLEY Management Unit #: TBD  
 Date: 2 JUNE 2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: JENNIFER VAUGHAN - CITY OF SD MSCP  
 JASMINE WATTS - HELIX Environmental

Species Found? ☒ Yes ☐ No

Total No. Individuals: 500

☐ Exact

☒ Estimate (use orders of 10, 100 and 1000 for estimates)

If not, why (if reason known or suspected)?

Population/Subpopulation Area: 492.74

m<sup>2</sup>

☒ Exact (based on GPS mapping) See 2005 data

☐ Estimate

Collection (if not collected previously)?

☐ Yes

☒ No

☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4

☒ meters

☐ feet

Observation Location: 10310914.007

1794310.064

☒ State Plane (feet)

☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Diegan Coastal Sage Scrub

Landowner/Manager: City of SD Parks & Rec

Overall Site Quality\*\*

☒ Very Good-Excellent

☐ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use:

Open Space - OTAY VALLEY REGIONAL PARK

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Trail has been widened and paved with gravel, fence installed on both sides

Management Recommendation/s:

Trail construction per OVPR plan; fence installed as condition of project.

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Cordylanthus oregonianus</i>	7			<i>Dudleya pulverulenta</i>	<1		
<i>Rhus integrifolia</i>	20			<i>Mimulus aurantiacus</i>	<1		
<i>Baccharis sarothroides</i>	5			<i>Gallium</i> sp.	<1		
<i>Heteromeles arbutifolia</i>	1			<i>Rhamnus crocea</i>	<1		
<i>Artemisia californica</i>	1			<i>Arena barbata</i> *	<1		
<i>Bromus madritensis</i> *	1			<i>Vulpia myuros</i> *	<1		
<i>Centauria melitensis</i> *	<1			<i>Gnaphalium canescens</i>	<1		
<i>Gnaphalium</i> sp.	<1						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

10310914.007 1794310.064

Location [State Plane (ft)]

N, NE, E

Direction (facing)

1.1m

Height

10-15° down

Camera Angle

320-523

Photo #

1 MSCP Monitoring

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



## **Photo 42. *Cordylanthus orcuttii* (Orcutt's Bird's Beak) Otay River Valley**



Panorama from Southwestern end of population, facing North, Northeast, East.  
Panorama location is 6316914.07 1794310.86 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



*Cylindropuntia californica* var. *californica*  
Snake Cholla



© City of San Diego, 2002

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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Cylindropuntia californica* Common Name: Snake Cholla  
 Site Name: Balboa Park var. californica Management Unit #: TBD  
 Date: 2 JUNE 2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: JENNIFER VAUGHAN - City of SD MSCP  
 JASMINE WATTS - HELIX Environmental

Species Found? ☒ Yes ☐ No GPS'd locations  
 Total No. Individuals: 3 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 319 M<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector Collection Number Museum/Herbarium

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: +/- 4 meters ☐ feet  
 Observation Location: 0281970.429 1845150.870 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: Coastal Sage Scrub / Chaparral transition  
 Landowner/Manager: City of SD Parks + Rec - Regional Developed Parks  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: GOLF COURSE, open space, developed Park

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
 Fountain grass inv. east of photo  
 acacia inv. west of photo  
 Management Recommendation/s: control invasive species

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
Yucca - schottii	10			Gnaphalium bicolor	21		
Artemisia californica	40			Ericella californica	21		
Isorhiza menziesii	2			Hellanthium scoparium	21		
Eriogonum fasciculatum	2			Ceanothus verrucosus	5		
Salvia mellifera	4			Adenostoma fasciculatum	5		
Deinandra fasciculata	1			Nassella spp	1		
Cylindropuntia californica	1			Antirrhinum nuttallianus	1		
Ferocactus viridescens	1			Pennisetum setaceum	5		

**IV. SITE PHOTOMONITORING**  
 Camera type: CANON POWERSHOT A7S  
 0281970.429 1845150.870 NW, N, NE 5ft 5° down 314-327 L MSCP/monitormg  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: One individual located in center of photograph (east of Yucca) and two small individuals located in understory of chamise (seen in photo background) - PHOTO POINT GPS'd

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 43. *Cylindropuntia californica* var. *californica*  
(Snake Cholla)  
Balboa Park**



Panorama from Northern edge of population, facing Northwest, North, Northeast.  
Panorama location is 6287976.43 1845150.87 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <i>Cylindropuntia californica</i> var. cal.		Common Name: Santa Cholla	
Site Name: Obay Mesa		Management Unit #: TBD	
Date: 5/30/08		Management Regime: TBD	
Surveyors and Affiliation/Agency: Boby Miller City of San Diego MSCP Jennifer Vaughan City of San			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 15 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 0.25 acres ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 1 ☒ meters ☐ feet

Observation Location: 0323409.55 1779452.067 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: maritime succulent scrub

Landowner/Manager: City of San Diego Park + Recreation Open Space

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

nearby dirt road, ORV use - including Border Patrol

Management Recommendation/s:

hillside relatively undisturbed - do not let road expand

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Germandra fasciculata</i>	1			<i>Euphorbia misera</i>	5		
<i>Bromus medietensis</i> ssp. *	3			<i>Lepidium latifolia</i>	1		
<i>Nasella (c.f. pulchra)</i>	1			<i>Erodium</i> sp. *	3		
<i>Eriogonum fasciculatum</i>	1			<i>Artemisia californica</i>	1		
<i>Simmondsia chinensis</i>	15			<i>Brassica</i> sp. *	<1		
<i>Cylindropuntia prolifera</i>	2			<i>Penstemon setaceus</i> *	<1		
<i>Cylindropuntia californica</i> var. cal. 1							
<i>Viguiera laciniata</i>	3						

### IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

0323409.55 1779452.067 E-NE-N 1.52 M ~5-10° up 317-319 L-MSCP/monitoring

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: Point established 2007; however, GPSed location 2008

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 44. *Cylindropuntia californica* var. *californica*  
(Snake Cholla)  
Otay Mesa**



Panorama from Northern edge of population, facing East, Northeast, North.  
Panorama location is 6323469.55 1779652.07 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Cylindropuntia californica</u>		Common Name: <u>Snake Cholla</u>					
Site Name: <u>Spring Canyon</u>		Management Unit #: <u>7310</u>					
Date: <u>5/30/07</u>		Management Regime: <u>TBD</u>					
Surveyors and Affiliation/Agency: <u>Zohy Miller City of San Diego MSCP</u> <u>Jennifer Vaughan City of San Diego MSCP</u>							
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Total No. Individuals: <u>30</u> <input type="checkbox"/> Exact <input checked="" type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)							
Population/Subpopulation Area: <u>0.6</u> <u>acres</u> <input type="checkbox"/> Exact (based on GPS mapping) <input checked="" type="checkbox"/> Estimate							
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously							
Collector: _____		Collection Number: _____					
		Museum/Herbarium: _____					
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>							
Accuracy of Coordinates/GPS Error: +/- <u>&lt; 1</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet							
Observation Location: <u>0330040.051</u> <u>1781287.095</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM							
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>							
Vegetation Community: <u>Maritime Succulent Scrub</u>							
Landowner/Manager: <u>City of San Diego Park + Recreation Open Space</u>							
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input checked="" type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input type="checkbox"/> Very Poor							
Surrounding land use: <u>open space</u>							
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>off road vehicles (incl. border patrol)</u> <u>invasive non-native grasses</u>		Management Recommendation/s: <u>limit ORV use</u>					
<b>III. ASSOCIATED SPECIES</b>							
List dominant, subdominant and invasive species in/near target species observation area/management unit.							
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover'*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).							
Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>S. Simmondsia chinensis</u>	<u>7</u>			<u>S. Ambrosia chenopodiifolia</u>	<u>1</u>		
<u>H. Bromus madritensis ssp. rubens *</u>	<u>5</u>			<u>H. Brassica sp. * (schesced)</u>	<u>2</u>		
<u>H. Erodium spp. (schesced)</u>	<u>25</u>			<u>S. Cylindropuntia californica var. c.</u>	<u>1</u>		
<u>H. Senecioia furiculata</u>	<u>3</u>			<u>H. Ammalacia sp.</u>	<u>&lt;1</u>		
<u>H. Centaurea melitensis *</u>	<u>1</u>			<u>H. Lamarkia aurea *</u>	<u>&lt;1</u>		
<u>S. Artemisia californica</u>	<u>3</u>			<u>S. Euphorbia misera</u>	<u>5</u>		
<u>S. Viguiera laciniata</u>	<u>1</u>			<u>H. Mibakia microcarpa</u>	<u>&lt;1</u>		
<u>H. Avena sp. *</u>	<u>1</u>			<u>H. Ferocactus viridescens</u>	<u>&lt;1</u>		
				<u>S. Salvia angustifolia *</u>	<u>&lt;1</u>		
<b>IV. SITE PHOTOMONITORING</b>							
Camera type: <u>Canon PowerShot A75</u>							
<u>0330040.051</u>	<u>1781287.095</u>	<u>N-NE-E-SE</u>	<u>5 ft</u>	<u>~50° down</u>	<u>300-303</u>	<u>4/MSCP</u>	
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s	
<b>V. OTHER FIELD NOTES</b>							
Other Field Notes/Comments: <u>observed northern barrier located across canyon to south</u> <u>in 2005) and CAEN - 5 individuals believed to be family group with</u> <u>1 fledged young; EPS print not recorded for 2007 - used photo to find location</u>							

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 45. *Cylindropuntia californica* var. *californica*  
(Snake Cholla)  
Spring Canyon**



Panorama from Northeastern edge of population, facing North, Northeast, East, Southeast.  
Panorama location is 6330060.05 1781287.695 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



*Deinandra conjugens*  
Otay Tarplant



© City of San Diego, 2005



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Deinandra conjugens Common Name: OTAY TAR PLANT  
 Site Name: Denney Ranch Management Unit #: TBA  
 Date: 6/13/08 Management Regime: TBA  
 Surveyors and Affiliation/Agency: John Miller City of San Diego MSCP  
Jennifer Vaughan City of San Diego MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 1 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 3023.04 M<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 <1 ☒ meters ☐ feet  
 Observation Location: 0321404.87 1791030.28 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal sage scrub  
 Landowner/Manager: City of San Diego  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: residential development, open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

invasive species (Bromus sp.)

Management Recommendation/s:

Ø

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Artemisia californica</u>	<u>20</u>			<u>Rosa mini. triflora</u>	<u>&lt;1</u>		
<u>Deinandra fasciculata</u>	<u>10</u>			<u>Simmondsia chinensis</u>	<u>1</u>		
<u>Deinandra conjugens</u>	<u>&lt;1</u>			<u>Baccharis sarothroides</u>	<u>&lt;1</u>		
<u>Eriogonum fasciculatum</u>	<u>&lt;1</u>						
* <u>Bromus maritimus sp. rubens</u>	<u>35</u>						
<u>Rhus integrifolia</u>	<u>1</u>						
<u>Viguiera laciniata</u>	<u>1</u>						
<u>Encelia californica</u>	<u>1</u>						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A75

0321404.87 1791030.28 S-SE-E 1.1m 75° up 386-389 L. MSCP  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: 3 ind. CAN observed at photopoint

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

**Photo 46. *Deinandra conjugens* (Otay Tarplant)  
Dennery Ranch**



Panorama from Southern edge of population, facing South, Southeast, East.  
Panorama location is 6321404.87 1791630.28 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Deinandra confertiflora</u>		Common Name: <u>Gray Tarplant</u>	
Site Name: <u>Proctor Valley</u>		Management Unit #: <u>TBD</u>	
Date: <u>June 3, 2008</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>Robert Miller City of San Diego MSCP</u> <u>Jennifer Vaughan City of San Diego MSCP</u>			
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Total No. Individuals: <u>2000</u> <input type="checkbox"/> Exact <input checked="" type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)			
Population/Subpopulation Area: <u>3347.34</u> <u>M<sup>2</sup></u> <input checked="" type="checkbox"/> Exact (based on GPS mapping) <input type="checkbox"/> Estimate see 2005 GPS data			
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously			
If yes: Collector _____		Collection Number _____	
		Museum/Herbarium _____	
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
Accuracy of Coordinates/GPS Error: +/- <u>&lt;1</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
Observation Location: <u>U353224.493</u> <u>1825326.850</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
Vegetation Community: <u>Native/non-native grassland</u>			
Landowner/Manager: <u>City of San Diego Water Dept</u>			
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input checked="" type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input type="checkbox"/> Very Poor			
Surrounding land use: <u>open space</u>			
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>non-native vegetation</u> <u>too frequent fire regime</u> <u>ORV use</u>		Management Recommendation/s: <u>ORV use limited by fences</u>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit. Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
<u>Deinandra confertiflora</u>	<u>10</u>		
<u>Deinandra fasciculata</u>	<u>20</u>		
<u>Lotus scoparius</u>	<u>&lt;1</u>		
<u>Tecoma menziesii</u>	<u>5</u>		
* <u>Avena fatua</u>	<u>5</u>		
* <u>Cynara cardunculus</u>	<u>1</u>		
* <u>Bracharis smutheoides</u>	<u>&lt;1</u>		
* <u>Lolium multiflorum</u>	<u>10</u>		
Species	Cover	Coll?	Coll. #
<u>Nesella pulchra</u>	<u>5</u>		
* <u>Brassica nigra</u> (seeds)	<u>3</u>		
<u>Calocortus splendens</u> (seeds)	<u>&lt;1</u>		
<u>Dichlastema capitatum</u> (seeds)	<u>1</u>		
* <u>Sibola fragus</u>	<u>1</u>		
* <u>Brachypodium distachyon</u>	<u>10</u>		
<u>Chlorogalum sp.</u>	<u>&lt;1</u>		
<b>IV. SITE PHOTOMONITORING</b>			
Camera type: <u>Canon Powershot A7S</u>			
<u>U353224.493</u>	<u>1825326.850</u>	<u>E, SE, S</u>	<u>53"</u>
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle
			<u>down ~ 50</u>
			<u>337-339</u>
			Photo #
			File location/s
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments: _____			
_____			
_____			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.

## **Photo 47. *Deinandra conjugens* (Otay Tarplant) Proctor Valley**



Panorama from Southeastern edge of population, facing East, Southeast, South.  
Panorama location is 6353224.49 18525326.86 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



*Dudleya blochmaniae* ssp. *brevifolia*  
Short-Leaved Dudleya



© City of San Diego, 2005



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya blochmaniae* ssp. *brevifolia*  
 Site Name: *Parcel Mnt Subpop #1* Common Name: *Short-leaved Dudleya*  
 Date: *5/16/08* Management Unit #: *TBP*  
 Surveyors and Affiliation/Agency: *Peter Miller City of San Diego* Management Regime: *TBD*  
*with Peter SANBAG*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *500* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *300* *m<sup>2</sup>* ☐ Exact (based on GPS mapping) ☒ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: *+/- 1* ☒ meters ☐ feet  
 Observation Location: *4264028.673* *1920413.917* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *opening within CSS, maritime scrub*  
 Landowner/Manager: *City of San Diego Park + Recreation Open Space*  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: *open space, trails*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*nearby trail; however does not appear to affect population*

Management Recommendation/s:

*none*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>H. Schizanthus ciliaris</i>	<i>30</i>			<i>H. Crapula crenata</i>	<i>1</i>		
<i>H. Dianthus fasciculata</i>	<i>1</i>			<i>H. Penstemon oregonensis</i>	<i>1</i>		
<i>H. Dudleya blochmaniae</i> ssp. <i>b</i>	<i>1</i>			<i>H. Antirrhinum nuttallianum</i>	<i>1</i>		
<i>H. Eriogonum fasciculatum</i>	<i>1</i>			<i>H. Vulpia myuros</i>	<i>1</i>		
<i>H. Helianthus fasciculata</i>	<i>1</i>			<i>H. Chorizanthe fimbriata</i>	<i>1</i>		
<i>H. Eriogonum fasciculatum</i>	<i>1</i>						
<i>H. Chimaphila axillaris</i>	<i>1</i>						
<i>H. Rumex crispus</i>	<i>1</i>						

## IV. SITE PHOTOMONITORING

Camera type: *Olympus Stylus 1125 SW*  
*4264028.673* *1920413.917* *SW W N N* *~50'* *~10° down* *76-81* *L: MSCP* *monitoring*  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



**Photo 48. *Dudleya blochmaniae* spp. *brevifolia*  
(Short-Leaved Dudleya)  
Carmel Mountain Subpopulation # 1**



Panorama from Northwestern edge of population, Southwest, West, Northwest, North.  
Panorama location is 6264028.67 1920613.92 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya blochmaniae* ssp. *brevipolia*  
 Site Name: *Cornel Mountain - Schopp #2* Common Name: *Short-leaved Dudleya*  
 Date: *May 16 2008* Management Unit #: *TAD*  
 Surveyors and Affiliation/Agency: *Peter Miller City of San Diego*  
*Keith Egan SANDAG* Management Regime: *TAD*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *400* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *250* *m<sup>2</sup>* ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: *+/- <1* ☒ meters ☐ feet  
 Observation Location: *0205090.736* *1920305.402* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *openings within chamise chaparral*  
 Landowner/Manager: *City of San Diego Park + Recreation Open Space*  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: *open space, nearby trail*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*nearby trail, does not appear to be impacting site; broken beer bottles*

Management Recommendation/s:

*maintain existing fence*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>S. Adenostoma fasciculata</i>	10			<i>H. Bromus madritensis *</i>	<1		
<i>S. Eriogonum fasciculatum</i>	2			<i>H. Cardianema crassissimum</i>	<1		
<i>H. Dudleya laxifolia</i>	<1						
<i>H. Desmodium fasciculata</i>	1						
<i>H. Silaginella cinerascens</i>	70						
<i>S. Xylocarpus siccus</i>	<1						
<i>H. Crataegus cuneata</i>	1						
<i>H. Abronchia hirsuta</i>	<1						

## IV. SITE PHOTOMONITORING

Camera type: *Kodak disposable*

*0205090.736* *1920305.402* *N, NE, E, SE*

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: *Silaginella covered A cover*

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 49. *Dudleya blochmaniae* spp. *brevifolia*  
(Short-Leaved Dudleya)  
Carmel Mountain Subpopulation # 2**



Panorama from Northeastern edge of population, North, Northeast, East, Southeast.  
Panorama location is 6265696.74 1920365.46 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya blochmaniae* ssp. *brevifolia* Common Name: *Short-leaved Dudleya*  
 Site Name: *Carmel Mountain - Subpop #3* Management Unit #: *TBD*  
 Date: *May 16, 2008* Management Regime: *TBD*  
 Surveyors and Affiliation/Agency: *Rebecca Miller City of San Diego*  
*Kathleen SANDAG*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *1500 w of trail* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *2500 E of trail* ☐ Exact (based on GPS mapping) ☒ Estimate  
*670 m<sup>2</sup>* Units

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector \_\_\_\_\_

Collection Number \_\_\_\_\_

Museum/Herbarium \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- *<1* ☒ meters ☐ feet

Observation Location: *0265528 093* *1920724 110* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *opening in chaparral*

Landowner/Manager: *City of San Diego Port + Recreation Open Space*

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: *open space, trail through center of population*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*trail through population - now closed*

Management Recommendation/s:

*NONE*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species = List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>H. Dudleya brevifolia</i>	5			<i>Ferocactus viridescens</i>	21		
<i>S. Eriogonum fasciculatum</i>	1			<i>Ceanothus cuneatus</i>	1		
<i>A. californica</i>	1			<i>Chorizanthe fimbriata</i>	<1		
<i>M. laurina</i>	1			<i>Opuntia littoralis</i>	1		
<i>Selaginella cinerascens</i>	35			<i>Nasella pulchra</i>	<1		
<i>Delonix fasciculata</i>	1			<i>Thermopsis humata</i>	1		
<i>Bromus maritimus</i> *	1						
<i>Plantago erecta</i>	1						

## IV. SITE PHOTOMONITORING

Camera type: *Totally disposable*

*0265528 093* *1920724 110*

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



**Photo 50. *Dudleya blochmaniae* spp. *brevifolia*  
(Short-Leaved Dudleya)  
Carmel Mountain Subpopulation # 3**



Panorama from Southwestern edge of population, Southeast, South, Southwest, West, Northwest.  
Panorama location is 6265528.09 1920724.12 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya blochmaniae* ssp. *brevifolia* Common Name: *Short-leaved Dudleya*  
 Site Name: *Crest Cn - Northern Subgroup* Management Unit #: *TBD*  
 Date: *May 16, 2008* Management Regime: *TBD*  
 Surveyors and Affiliation/Agency: *Robert Miller City of San Diego MSCP*  
*with Eric SANDAG*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *500* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *150* *m<sup>2</sup>* ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: *See previous CAS files 2009*

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: *+/- <1* ☐ meters ☐ feet  
 Observation Location: *0253917.074* *1928311.120* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *growing within maritime succulent scrub*  
 Landowner/Manager: *City of San Diego Park + Recreation Open Space*  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: *open space, residential*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*adjacent property appears to be utilizing area as yard (electric dog fence visible) - 1 dog scat observed*

Management Recommendation/s:

*curtail use, if any, by adjacent landowners; remove ice plant @ E edge on private prop if possible*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species = List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
1. <i>Dudleya brevifolia</i>	1			4. <i>Carphocotyle edulis</i> *	1		
2. <i>Perithous dumosa</i>	1			5. <i>Lotus scoparius</i>	<1		
3. <i>Arenaria fasciculata</i>	5			6. <i>Silene spaldingii</i>	10		
4. <i>Eriogonum fasciculatum</i>	5			7. <i>Salvia malvifolia</i> *	<1		
5. <i>Rhus integrifolia</i>	3			8. <i>Dudleya puberula</i>	<1		
6. <i>Nasella pulchra</i>	<1			9. <i>Erigeron stramineus</i>	<1		
7. <i>Lewisia filiformis</i>	1						
8. <i>Chorizanthe parvifolia</i>	<1						

## IV. SITE PHOTOMONITORING

Camera type: *Kodak disposable*

*0253917.074* *1928311.120*

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



**Photo 51. *Dudleya blochmaniae* spp. *brevifolia*  
(Short-Leaved Dudleya)  
Crest Canyon – Northern Subpopulation**



Panorama from Northeastern edge of population, West, North, East.  
Panorama location is 6253917.07 1928311.12 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya blochmaniae* ssp. *brevifolia*

Site Name: *Crest Cyn - Southern Subgroup* Common Name: *Short-leaved Dudleya*

Date: *May 16 2008* Management Unit #: *780*

Surveyors and Affiliation/Agency: *Robert Miller City of San Diego MSCP*  
*Keith Greer SANDAG* Management Regime: *780*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *4* ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
Population/Subpopulation Area: *170* *m<sup>2</sup>* ☐ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
If yes: *see previous GPS files 2006 data*

Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: *+/- <1* ☒ meters ☐ feet  
Observation Location: *10253843.223* *1927609.020* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *opening in San Diego Maritime Chaparral*  
Landowner/Manager: *City of San Diego Park + Recreation Open Space*  
Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
Surrounding land use: *open space, trail*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
*trail through center of population*

Management Recommendation/s:  
*install fencing along trail*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>H. Dudleya brevifolia</i>	<i>&lt;1</i>						
<i>H. Senecioidea fasciculata</i>	<i>2</i>						
<i>H. Chloragalum parvifolium</i>	<i>&lt;1</i>						
<i>H. Atriplex fasciculata</i>	<i>1</i>						
<i>H. Bisciaephus tenellus</i>	<i>&lt;1</i>						
<i>H. Sparganium sp.</i>	<i>&lt;1</i>						

## IV. SITE PHOTOMONITORING

Camera type: *Kodak Disposable*  
*10253843.223* *1927609.020* *Nat. N. NE* *50"* *~down 50°* *7-9* *L. MSCP/monitoring*  
Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: *a add'l found at southernmost polygon*

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



**Photo 52. *Dudleya blochmaniae* spp. *brevifolia*  
(Short-Leaved Dudleya)  
Crest Canyon – Southern Subpopulation**



Panorama from Northern edge of population, Northwest, North, Northeast.  
Panorama location is 6253843.22 1927609.02 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya blochmaniae* ssp. *brevifolia* Common Name: *Short-leaved Dudleya*  
 Site Name: *Statehood Canyon* Management Unit #: *TRD*  
 Date: *May 16 2008* Management Regime: *TRD*  
 Surveyors and Affiliation/Agency: *Rebe Miller City of San Diego MSCP*  
*Keith Gorr SANIDAC*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *30* ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *17.95* *m<sup>2</sup>* ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: *see previous GPS mapping 2002*

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: *+/- <1* ☒ meters ☐ feet

Observation Location: *0256047.21* *1897399.084* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *CES, openings*

Landowner/Manager: *UCSD*

Overall Site Quality\*\* ☐ Very Good-Excellent

☒ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: *open space, trail through population*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*trail through population*

Management Recommendation/s:

*reroute trail*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species = List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
4 <i>Dudleya brevifolia</i>	<1			5 <i>Lotus scoparius</i>	<1		
2 <i>Artemisia californica</i>	1			5 <i>Adenostoma fasciculata</i>	1		
3 <i>Eriogonum fasciculatum</i>	2			11 <i>Erigeron californicus</i>	<1		
4 <i>Allium spp.</i>	2			11 <i>Polemonium texense</i>	5		
4 <i>Desmodium illinoense</i>	10						
4 <i>Dudleya edulis</i>	1						
4 <i>Crucifera spicata</i>	7						
4 <i>Salvinella cinerascens</i>	30						

## IV. SITE PHOTOMONITORING

Camera type: *Kodak Disposable*

*0256047.21* *1897399.084*

Location (State Plane (ft))

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location (State Plane (ft))

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 53. *Dudleya blochmaniae* spp. *brevifolia*  
(Short-Leaved Dudleya)  
Skeleton Canyon**



Panorama from Northern edge of population, West, Northwest, North.  
Panorama location is 6256047.211 1987399.08 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

*Dudleya variegata*  
Variegated Dudleya



© City of San Diego, 2004



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya variegata*

Common Name: Variegated Dudleya

Site Name: Black Mt. EAST

Management Unit #: TBD

Date: 5/22/2008

Management Regime: TBD

Surveyors and Affiliation/Agency: JASMINE WAITS - HELIX Environmental  
JENNIFER VAUGHAN - City of SD MSCP

Species Found? ☐ Yes ☒ No

Total No. Individuals: 0

☒ Exact

☐ Estimate (use orders of 10, 100 and 1000 for estimates)

If not, why (if reason known or suspected)?

Population/Subpopulation Area: 0

Units

☐ Exact (based on GPS mapping)

☐ Estimate

Collection (if not collected previously)?

☐ Yes

☒ No

☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 4

☐ meters

☐ feet

Observation Location: 6291943.74

1939635.453

☒ State Plane (feet)

☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Non-native Grassland w/ patches of Native Grassland & CSS

Landowner/Manager: City of SD Parks & Rec

Overall Site Quality\*\*

☐ Very Good-Excellent

☐ Fair to Good

☒ Poor

☐ Very Poor

Surrounding land use: Carmel Villy Rd to West, Powerline/Open Space to East

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Invasives: non-native grasses  
& artichoke thistle

Management Recommendation/s:

Control non-natives

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Nassella pulchra</i>	5			<i>Calystegia macrostegia</i>	4		
<i>Brachypodium distachyon</i> *	35			<i>Erodium cicutarium</i> *	1		
<i>Bromus diandrus</i> *	1			<i>Crassula coronata</i>	<1		
<i>Cynara cardunculus</i> *	5			<i>Isocoma menziesii</i>	2		
<i>Eriogonum fasciculatum</i>	1			<i>Bromus hordeaceus</i> *	1		
<i>Salvia apiana</i>	3			<i>Chlorogalum pomeridianum</i>	<1		
<i>Artemisia californica</i>	3			<i>Rhus integrifolia</i>	1		
<i>Arena</i> sp. *	1			<i>Brassica</i> sp. *	3		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

6291943.74

1939635.453E, SES

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or Instructions)

Continue on back if needed.



Excellent	70-100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

<u>Species</u>	<u>Cover</u>
<i>Chrysanthemum coronarium</i> *	1
<i>Hazardia squarosa</i>	< 1

**Photo 54. *Dudleya variegata* (Variegated Dudleya)  
Black Mountain East**



Panorama from Southeastern edge of population, facing East, Southeast, South.  
Panorama location is 6291943.74 1939635.45 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Dudleya variegata</u>		Common Name: <u>variegated dudleya</u>	
Site Name: <u>East Elliot-Creek</u>		Management Unit #: <u>TBD</u>	
Date: <u>5/21/08</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>Jasmine Walk - Helix Environmental</u> <u>Jennifer Vaughan - City of San Diego, MSCP</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 210 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 1,725 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4 ☒ meters ☐ feet

Observation Location: 0316394.856 1897093.542 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal Sage Scrub / Non-native Grassland

Landowner/Manager: City of SD Parks + Rec

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>Non-native grass abundance</u>	Management Recommendation/s: <u>Control non-natives</u>
--	--

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Dudleya variegata</u>	<u>1</u>			<u>Isocoma menziesii</u>	<u>3</u>		
<u>Calochortus splendans</u>	<u>1</u>			<u>Rhus integrifolia</u>	<u>2</u>		
<u>Avena sp. *</u>	<u>50</u>			<u>Brassica sp. *</u>	<u>1</u>		
<u>Nassella pulchra</u>	<u>5</u>			<u>Opuntia littoralis</u>	<u>1</u>		
<u>Artemisia californica</u>	<u>&lt;1</u>			<u>Bromus madritensis *</u>	<u>3</u>		
<u>Lepidium lasiocarpum *</u>	<u>1</u>			<u>Filago gallica *</u>	<u>1</u>		
<u>Erodium sp. *</u>	<u>1</u>			<u>Cylindropuntia microcylindrica</u>	<u>&lt;1</u>		
<u>Eriogonum fasciculatum</u>	<u>1</u>			<u>Plantago sp.</u>	<u>&lt;1</u>		

### IV. SITE PHOTOMONITORING

Camera type: Canon PowerShot A79

<u>0316394.856</u>	<u>1897093.542</u>	<u>SW W NW N</u>	<u>1.1m</u>	<u>level</u>	<u>258-261</u>	<u>L. MSCP</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: \_\_\_\_\_

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Species

Cover

Stephanomeria exigua

<1

Centaurium venustum

<1

Lotus scoparius

2

Centauria medietensis \*

1

**Photo 55. *Dudleya variegata* (Variegated Dudleya)  
East Elliot - Creek**



Panorama from Northwestern edge of population, facing Southwest, West, Northwest, North.  
Panorama location is 6316694.86 1897093.54 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Dudleya variegata Common Name: variegated dudleya  
 Site Name: East Elliot - Hilltop Management Unit #: TBD  
 Date: 5/21/08 Management Regime: BL  
 Surveyors and Affiliation/Agency: Jasmine Walls - Helly Environmental  
Jennifer Vaughan - City of San Diego, MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 180

☐ Exact

☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 345

m<sup>2</sup>

☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)?

☐ Yes

☒ No

☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 5 ☒ meters ☐ feet

Observation Location: 0310204.1200

1897003.710

☒ State Plane (feet)

☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Chaparral / Coastal Sage Scrub Ecotone

Landowner/Manager: City of S.D. Parks & Rec.

Overall Site Quality\*\* ☐ Very Good-Excellent

☒ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Non-native grasses

Management Recommendation/s:

prevent expansion of non-native grasses

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Adenostoma fasciculata</u>	<u>15</u>			<u>Xylococcus bicolor</u>	<u>2</u>		
<u>Delonix fasciculata</u>	<u>20</u>			<u>Salvia mellifera</u>	<u>1</u>		
<u>Lotus scoparius</u>	<u>2</u>			<u>Helianthemum scoparium</u>	<u>1</u>		
<u>Calochortus weedii</u>	<u>&lt;1</u>			<u>Ferocactus viridescens</u>	<u>&gt;1</u>		
<u>Avena sp. *</u>	<u>4</u>			<u>Perophyllum gracile</u>	<u>3</u>		
<u>Chlorogalum paniculatum</u>	<u>1</u>			<u>Eriogonum fasciculatum</u>	<u>1</u>		
<u>Nassella pulchra</u>	<u>3</u>			<u>Dichondra occidentalis</u>	<u>1</u>		
<u>Hesperoyucca whipplei</u>	<u>1</u>			<u>Artemisia californica</u>	<u>1</u>		

## IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

0310204.1200 1897003.710

SE, S, SW

1.1 m

Flat

251-253

L. MSCP/monitoring

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Species	Cover
<i>Bromus madritensis</i> *	3
<i>Navarretia hamata</i>	<1
<i>Filago gallica</i> *	<1
<i>Crassula conata</i>	<1
<i>Stephanomeria exigua</i>	<1
<i>Rhus integrifolia</i>	2
<i>Gallium</i> sp.	>1

\* NOTE: *Yucca whipplei* is now *Hesperoyucca whipplei*

**Photo 56. *Dudleya variegata* (Variegated Dudleya)  
East Elliot - Hilltop**



Panorama from the Southwestern edge of population, facing Southeast, South, Southwest.  
Panorama location is 6316264.13 1897663.71 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Dudleya variegata Common Name: variegated dudleya  
 Site Name: East Elliot - Slope Management Unit #: TBD  
 Date: 5/21/09 Management Regime: TBD  
 Surveyors and Affiliation/Agency: Jasmine Wain - Helix Environmental  
Jennifer Vaughan - City of San Diego, MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 130 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 1.155 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate  
 Units

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 <1 ☐ meters ☒ feet  
 Observation Location: 035780.5810 1891416.988 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: COASTAL SAGE SCRUB NON-NATIVE grassland  
 Landowner/Manager: CITY PARK AND REC  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

NON-NATIVE GRASSES  
(Avena sp.)

Management Recommendation/s:

control invasives

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Deinandra fasciculata</u>	<u>40</u>			<u>Lotus scoparius</u>	<u>4</u>		
<u>Avena sp. *</u>	<u>35</u>			<u>Nassella pulchra</u>	<u>1</u>		
<u>Ferocactus viridescens</u>	<u>&lt;1</u>			<u>Prostrum sp. *</u>	<u>1</u>		
<u>Dudleya variegata</u>	<u>&lt;1</u>			<u>Salvia apiana</u>	<u>&lt;1</u>		
<u>Isocoma menziesii</u>	<u>5</u>			<u>Centauria melitensis *</u>	<u>5</u>		
<u>Eriogonum fasciculata</u>	<u>2</u>			<u>Hypochaeris glabra *</u>	<u>1</u>		
<u>Bromus madritensis *</u>	<u>3</u>						
<u>Lepidium lasiocarpum *</u>	<u>2</u>						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A 77  
035780.5810 1891416.988 W. NW, N. NE 1.1M FLAT 254-757 L: MSCP Monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: Species difficult to locate amongst all the transplant

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 57. *Dudleya variegata* (Variegated Dudleya)  
East Elliot - Slope**



Panorama from the Southern edge of population, facing West, Northwest, North, Northeast.  
Panorama location is 6315780.58 1896466.98 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <i>Dudleya variegata</i>		Common Name: <i>Variegated Dudleya</i>	
Site Name: <i>Cort Mesa/Spring Canyon</i>		Management Unit #: <i>TBD</i>	
Date: <i>5/30/08</i>		Management Regime: <i>TBD</i>	
Surveyors and Affiliation/Agency: <i>Bob Miller City of San Diego MSCP</i> <i>Jennifer Vaughan City of San Diego MSCP</i>			
Species Found? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>large known populations in May did not come up this yr</i> If not, why (if reason known or suspected)?			
Total No. Individuals: <i>0</i> <input type="checkbox"/> Exact <input type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)			
Population/Subpopulation Area: <i>802.57</i> <i>M<sup>2</sup></i> <input checked="" type="checkbox"/> Exact (based on GPS mapping) <input type="checkbox"/> Estimate <i>see previous GPS files 2004</i>			
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously			
Collector: _____		Collection Number: _____	
		Museum/Herbarium: _____	
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
Accuracy of Coordinates/GPS Error: +/- <i>&lt;1</i> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
Observation Location: <i>6330914.789</i> <i>1782230.1142</i> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
Vegetation Community: <i>Maritime Succulent Scrub</i>			
Landowner/Manager: <i>City of San Diego Park + Recreation Open Space</i>			
Overall Site Quality** <input checked="" type="checkbox"/> Very Good-Excellent <input type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input type="checkbox"/> Very Poor			
Surrounding land use: <i>open space</i>			
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <i>ORYS</i> <i>illegal trespass/dumping/grazing</i> <i>(known historically)</i>		Management Recommendation/s: <i>adjacent trail closed as part of</i> <i>2006 TransNet vernal pool grant</i> <i>project</i>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit. Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover'*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
<i>H Eradum sp.</i>	<i>20</i>		
<i>H Selaginella cinerascens</i>	<i>15</i>		
<i>S Eriogonum fasciculatum</i>	<i>5</i>		
<i>H Nassella lepidota</i>	<i>2</i>		
<i>H Deinandra flexiculata</i>	<i>5</i>		
<i>S Artemisia californica</i>	<i>1</i>		
<i>S Simoesia chinensis</i>	<i>7</i>		
<i>H Bromus medietensis ssp. rubens</i>	<i>7</i>		
Species	Cover	Coll?	Coll. #
<i>H Fenzlactis viridescens</i>	<i>1</i>		
<i>S Cylindropuntia prolifera</i>	<i>&lt;1</i>		
<i>S Ambrosia chenopodiifolia</i>	<i>&lt;1</i>		
<i>H Arena hirsuta</i>	<i>&lt;1</i>		
<b>IV. SITE PHOTOMONITORING</b>			
Camera type: <i>Canon Powershot A76</i>			
<i>6330914.789</i> <i>1782230.1142</i> <i>SE-S-SW</i> <i>1.1m</i> <i>0°</i> <i>303-305</i> <i>4/12/08</i>			
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle
			Photo #
			File location/s
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments: <i>&gt;100 Myrsineus minimus in road pool (recently fenced) just west of photopoint</i>			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 58. *Dudleya variegata* (Variegated Dudleya)  
Goat Mesa/Spring Canyon**



Panorama looking towards the Southwestern edge of the population, facing Southeast, South, Southwest.

Panorama location is 6330814.78 1782263.11 NAD83 State Plane California Zone 6 (feet)

Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Dudleya variegata Common Name: Variegated Dudleya  
 Site Name: LACE MURRAY Management Unit #: TBD  
 Date: 5/22/2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: JASMINE WATTS - HELIX Environmental  
JENNIFER VAUGHAN - CITY OF SD MSCP

Species Found? ☐ Yes ☒ No Too late? (MAJORITY OF ANNUAL SPECIES ARE DEAD)

Total No. Individuals: 0 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 0 ☐ Exact (based on GPS mapping) ☐ Estimate  
 Units

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0.4 ☐ meters ☐ feet  
 Observation Location: 0310300.348 1865115.090 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal Sage Scrub  
 Landowner/Manager: City of SD Parks + Rec  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: Open Space / Recreation

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

No obvious threats

Management Recommendation/s:

NONE

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Eriogonum fasciculatum</u>	<u>3</u>			<u>Filago sp.</u>	<u>1</u>		
<u>Artemisia californica</u>	<u>5</u>			<u>Urtica myrica</u>	<u>1</u>		
<u>Baccharis sarothroides</u>	<u>2</u>			<u>Crassula comata</u>	<u>1</u>		
<u>Viguiera laciniata</u>	<u>2</u>			<u>Lepidium lasiocarpum</u> *	<u>1</u>		
<u>Malosma laurifolia</u>	<u>&lt;1</u>			<u>Deinandra fasciculata</u>	<u>&lt;1</u>		
<u>Selaginella cinerascens</u>	<u>2</u>						
<u>Bromus madritensis</u> *	<u>1</u>						
<u>Brassica sp.</u> *	<u>1</u>						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S  
0310300.348 1865115.090 NE, E, SE 1.1m 5° down 295-297 L: MSCP/monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 59. *Dudleya variegata* (Variegated Dudleya)  
Lake Murray**



Panorama looking towards the Northeastern edge of the population, facing Northeast, East, Southeast.

Panorama location is 6316360.35 1865115.09 NAD83 State Plane California Zone 6 (feet)

Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Dudleya variegata* **Common Name:** Variegated Dudleya

**Site Name:** Maroon Valley **Management Unit #:** TBD

**Date:** 4/24/08 **Management Regime:** TBD

**Surveyors and Affiliation/Agency:** Bob Miller City of San Diego MSCP  
Keli Bala City of San Diego Metro

Species Found? ☒ Yes ☐ No

Total No. Individuals: 800 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 150 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
see EPS data 2003/2005

Collection (if not collected previously)? ☐ Yes ☐ No ☒ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +/- < 1 ☒ meters ☐ feet

Observation Location: 407136.242 1787954.48 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: Disturbed CSS (post-fire) + NVC

Landowner/Manager: City of San Diego Water Department

Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
1 ORV track through base of upper population; gopher activity abated; NVC invasion (due to altered fire regime) greatest threat

Management Recommendation/s:  
invasives removal if species appear to be in decline. continue stringent access restrictions

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <i>Dudleya variegata</i>	2			H <i>Russula conata</i>	1		
H <i>Blechnum clevelandii</i>	2			H <i>Silene gallica</i>	1		
H <i>Cuscutidum ventricosum</i> *	10			H <i>Blechnum clevelandii</i>	2		
H <i>Lamarkia aurea</i> *	1			H <i>Plantago erecta</i>	3		
H <i>Erodium (c.f. moschatum)</i> *	40			H <i>Selaginella cinerascens</i>	5		
H <i>Avena spp.</i> *	3			H <i>Vulpia myuros var. hirsuta</i> *	15		
H <i>Bromus madri.ensis ssp. rubens</i> *	5			H <i>Osmadenia tenella</i>	1		
H <i>Troscema munziesii</i>	1			H <i>Lepidium nitidum var. nitidum</i> *	1		
				H <i>Centaurium venustum</i>	1		

**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A75

407136.242 1787954.48 SE S. SW 27" Not 109-111 L:MSCP

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s monitoring

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**

Other Field Notes/Comments:

Border Patrol  
619 671 1800 - contact previous to site visit - request # from officer Espiritu  
468 9145

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 60. *Dudleya variegata* (Variegated Dudleya)  
Marron Valley**



Panorama from Northern edge of population, facing Southeast, South, Southwest.  
Panorama location is 6407136.24 1787954.48 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Dudleya variegata Common Name: Variegated Dudleya  
 Site Name: MERCY ROAD Management Unit #: TBD  
 Date: 5/22/2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: JASMINE WATTS - HELIX ENVIR  
JENNIFER VAUGHAN - City of SD MSCP

Species Found? ☒ Yes ☐ No  
 Total No. Individuals: 30 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 25 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_  
 Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0.4 ☐ meters ☐ feet  
 Observation Location: 19244234.759 1924445.8530 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal Sage Scrub  
 Landowner/Manager: City of SD Parks & Rec  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: Open space, Residential to the North

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Non-native grasses

Management Recommendation/s:

Control non-native grasses (i.e., Brachypodium)

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Brachypodium distachyon</u> *	<u>40</u>			<u>Artemisia californica</u>	<u>3</u>		
<u>Reinandra fasciculata</u>	<u>10</u>			<u>Condauraea melintensis</u> *	<u>2</u>		
<u>Isocoma menziesii</u>	<u>2</u>			<u>Brassica sp.</u> *	<u>2</u>		
<u>Rhus integrifolia</u>	<u>2</u>			<u>Lotus scoparius</u>	<u>1</u>		
<u>Eriogonum fasciculata</u>	<u>2</u>			<u>Chlorogalum pomeridianum</u>	<u>1</u>		
<u>Nassella pulchra</u>	<u>5</u>			<u>Lepidium lasiocarpum</u> *	<u>&lt;1</u>		
<u>Isomeris arborea</u>	<u>1</u>			<u>Ferocactus viridescens</u>	<u>&lt;1</u>		
<u>Adolonia californica</u>	<u>3</u>			<u>Plantago erecta</u>	<u>&lt;1</u>		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S  
19244234.759 192445.8530 SW, W, NW 1.1m 0° down 291-293 MSCP/Monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: Photo # 294 of extant population located 51 m EAST of photo location (triangle polygon in 2003)  
2008 population shapefile created -

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 61. *Dudleya variegata* (Variegated Dudleya)  
Mercy Road**



Panorama from Northwestern edge of population, facing Southwest, West, Northwest.  
Panorama location is 6294234.76 192445.85 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya variegata*

Common Name: *Variegated Dudleya*

Site Name: MTRP Subpop 1

Management Unit #: TRD

Date: 5/21/2008

Management Regime: TBD

Surveyors and Affiliation/Agency: JEMINE WATTS - HBUX Environmental  
JENNIFER VAUGHAN - City of SD MSCP

Species Found? ☐ Yes ☒ No

May have already bloomed (seeds)?

Total No. Individuals: 0

☒ Exact

☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 0

Units

☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)?

☐ Yes

☒ No

☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 41

☒ meters

☐ feet

Observation Location: 4309627.3055

1879705.9121

☒ State Plane (feet)

☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal Sage Scrub

Landowner/Manager: City of San Diego Parks & Rec.

Overall Site Quality\*\*

☐ Very Good-Excellent

☒ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: Open Space Preserve

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

high cover of non-native grasses

Management Recommendation/s:

Control/Weed non-natives

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Leinandra fasciculata</i>	8			<i>Nassella lepidota</i>	1		
<i>Eriogonum fasciculatum</i>	2			<i>Malosma laurina</i>	1		
<i>Avena</i> sp. *	1			<i>Bromus madriensis</i> *	4		
<i>Erodium</i> sp. *	1			<i>Corethrogyne filaginifolia</i>	<1		
<i>Lotus scoparius</i>	3			<i>Vulpia myuros</i> *	1		
<i>Isomeris arborea</i>	1			<i>Brachypodium distachyon</i> *	20		
<i>Ferocactus viridoscens</i>	1			<i>Calochortus splendans</i>	<1		
<i>Artemisia californica</i>	1			<i>Lepidium lasiocarpum</i> *	<1		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

4309627.3055 1879705.9121

Location [State Plane (ft)]

Direction (facing) NW, N, NE

Height 1.1m

Camera Angle 5° down

Photo # 268-270

File location/s L MSCP

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Species	Cover
<i>Plantago erecta</i>	< 1
<i>Filago gallica</i> *	< 1
<i>Selaginella cinerascens</i>	1
<i>Viguiera laciniata</i>	< 1
<i>Centauria melitensis</i> *	< 1

**Photo 62. *Dudleya variegata* (Variegated Dudleya)  
Mission Trails Regional Park Subpopulation # 1**



Panorama from the Southern edge of population, facing Northwest, North, Northeast.  
Panorama location is 6309627.30 1879705.91 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Dudleya variegata

Common Name: variegated dudleya

Site Name: MISSION TRAILS SUBPOP #2

Management Unit #: TBA

Date: 5/21/09

Management Regime: TBA

Surveyors and Affiliation/Agency: Jasmine Wynn, Helen Environmental, Jennifer Vaughn, City of San Diego, MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 70 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 241 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet

Observation Location: 0309027.305 1879705.9121 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal Sage Scrub / grassland

Landowner/Manager: CITY OF SD PARK & REC

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space preserve

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Dominance of non-native grasses

Management Recommendation/s:

Control non-native grasses (i.e., Brachypodium)

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Eriogonum fasciculatum</u>	<u>1</u>			<u>Ferocactus viridescens</u>	<u>&lt;1</u>		
<u>Leinandra fasciculata</u>	<u>1</u>			<u>Erodium sp. *</u>	<u>1</u>		
<u>Anemone sp. *</u>	<u>3</u>			<u>Bromus madritensis *</u>	<u>2</u>		
<u>Nassella pulchra</u>	<u>3</u>			<u>Dudleya variegata</u>	<u>&lt;1</u>		
<u>Malosma laurina</u>	<u>1</u>			<u>Isocoma menziesii</u>	<u>1</u>		
<u>Lotus scoparius</u>	<u>2</u>			<u>Brassica sp. *</u>	<u>1</u>		
<u>Hazardia squarrosa</u>	<u>&lt;1</u>			<u>Baccharis smotheroides</u>	<u>&lt;1</u>		
<u>Lomatium sp.</u>	<u>&lt;1</u>			<u>Brachypodium distachyon *</u>	<u>20</u>		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

0309027.305 1879705.9121 W, NW, N 1.1 M down 10-15' 262-264 L. MSCP/monitoring

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 63. *Dudleya variegata* (Variegated Dudleya)  
Mission Trails Regional Park Subpopulation # 2**



Panorama from Northeastern edge of population, facing West, Northwest, North.  
Panorama location is 6309627.31 1879705.91 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Dudleya variegata

Common Name: Variiegated Dudleya

Site Name: MTRP Subpop 30

Management Unit #: TBD

Date: 5/21/2008

Management Regime: TBD

Surveyors and Affiliation/Agency: JASMINE WATTS - HDLX Environmental  
JENNIFER VAUGHAN - City of SD MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 50 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 44 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 4 ☒ meters ☐ feet

Observation Location: 4309578.77 1880426.963 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal Sage Scrub

Landowner/Manager: City of SD Parks & Rec.

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: Open Space Preserve

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Dominance of non-native grasses

Management Recommendation/s:

Control non-native species (i.e., Vulpia)

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Dudleya variegata</u>	<u>1</u>			<u>Isocoma menziesii</u>	<u>&lt;1</u>		
<u>Lotus scoparius</u>	<u>3</u>			<u>Erodium sp.</u> *	<u>1</u>		
<u>Malosma laurina</u>	<u>2</u>			<u>Vulpia myuros</u> *	<u>10</u>		
<u>Calochortus splendens</u>	<u>&lt;1</u>			<u>Bromus madritensis</u> *	<u>1</u>		
<u>Eriogonum fasciculatum</u>	<u>1</u>			<u>Nassella pulchra</u>	<u>&lt;1</u>		
<u>Opuntia littoralis</u>	<u>1</u>			<u>Osmodonia tenella</u>	<u>&lt;1</u>		
<u>Avena sp.</u> *	<u>4</u>			<u>Lepidium lasiocarpum</u> *	<u>&lt;1</u>		
<u>Brachypodium distachyon</u> *	<u>4</u>			<u>Plantago erecta</u>	<u>&lt;1</u>		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A75

4309578.77 1880426.963 SE, S SW 1.1m 5-10° down 265-267 L MSCP monitoring

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 64. *Dudleya variegata* (Variegated Dudleya)  
Mission Trails Regional Park Subpopulation # 3**



Panorama from Southwestern edge of population, facing Southeast, South, Southwest.  
Panorama location is 6309578.77 1880426.96 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Dudleya variegata*

Common Name: Variegated Dudleya

Site Name: Navajo / Mission Gorge

Management Unit #: TBD

Date: 5/21/2008

Management Regime: TBD

Surveyors and Affiliation/Agency: JASMINE WATTS - HBUX Environmental  
JENNIFER VAUGHAN - City of SD MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 500 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 896.812 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

Based on 2001 data

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +4 4 ☒ meters ☐ feet

Observation Location: 0313035.509 1073559.4184 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal Sage Scrub

Landowner/Manager: City of SD Parks & Rec

Overall Site Quality\*\* ☐ Very Good-Excellent

☒ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: Rancho Mission Canyon Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Non-native grasses

Management Recommendation/s:

Control non-native

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
Kocoma menziesii	5			Eriogonum fasciculatum	2		
Brassica sp. *	15			Dudleya variegata	2		
Rhus integrifolia	1			Avena sp. *	1		
Artemisia californica	1			Filago gallica *	1		
Bromus hordeaceus *	1			Nassella sp.	<1		
Brachypodium distachyon *	30			Mimulus aurantiacus	<1		
Erodium sp. *	1			Baccharis sarothroides	<1		
Reinandra fasciculata	1			Sisyrinchium bellum	1		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

0313035.509 1073559.4184 NE, E, SE 1.1m 5-10° down 271-273 L: MSCP monitoring

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: GPS battery dead, See Aerial Map for hand drawn photo location

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



Good	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation Structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Species	Cover
<i>Eriophyllum confertiflorum</i>	< 1
<i>Bloomeria crocea</i>	< 1
<i>Hypochaeris glabra</i> *	1
<i>Centaurea melitensis</i> *	1

**Photo 65. *Dudleya variegata* (Variegated Dudleya)  
Navajo/Mission Gorge**



Panorama from Northeastern edge of population, facing Northeast, East, Southeast.  
Panorama location is 6313035.51 1873558.42 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Dudleya variegata Common Name: variegated dudleya  
 Site Name: DIAY LAKE Management Unit #: N/A  
 Date: 5/10/08 Management Regime: N/A  
 Surveyors and Affiliation/Agency: Jasmine Wangs - Helix Environmental  
Jennifer Vaughani - City of San Diego - MSCP

Species Found? ☐ Yes ☒ No  
 Total No. Individuals: 0 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 72701.98 M2 ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_  
 Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +10 4 ☒ meters ☐ feet  
 Observation Location: 4350396.908 1807139.549 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Vernal pools - mima mounds / CSS  
 Landowner/Manager: City of S.D.  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Non-native Erodium + Bromus

Management Recommendations:

Control of non-native species

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Deinandra fasciculata</u>	<u>60</u>			<u>Bromus madritensis *</u>	<u>3</u>		
<u>Eriogonum fasciculatum</u>	<u>5</u>			<u>Avena barbata *</u>	<u>1</u>		
<u>Erodium sp *</u>	<u>45</u>			<u>Isocoma menziesii</u>	<u>2</u>		
<u>Lepidium otilidium *</u>	<u>1</u>			<u>Cressa truxifolia</u>	<u>1</u>		
<u>Chlorogallum pomeridicum</u>	<u>1</u>			<u>Salvia mellifera</u>	<u>1</u>		
<u>Salvia tragus *</u>	<u>1</u>						
<u>Cuscuta sp.</u>	<u>1</u>						
<u>Bloomeria clevelandii</u>	<u>1</u>						

## IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A7S  
4350396.908 1807139.549 N, NE, E, SE 0.85m 10° up 191-195 L MSCP Monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 66. *Dudleya variegata* (Variegated Dudleya)  
Otay Lakes**



Panorama from Northeastern edge of the population, facing North, Northeast, East, Southeast.

Panorama location is 635639.91 1807139.55 NAD83 State Plane California Zone 6 (feet)

Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

[illegible]



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Dudleya variegata* **Common Name:** Variegated Dudleya  
**Site Name:** Paradise Valley **Management Unit #:** TBD  
**Date:** 5/23/2008 **Management Regime:** TBD  
**Surveyors and Affiliation/Agency:** Betsy Miller - City of SD MSCP  
 Jasmine Watts - Helix Env

---

**Species Found?** ☒ Yes ☐ No  
**Total No. Individuals:** 100 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
**Population/Subpopulation Area:** ☒ Exact (based on GPS mapping) ☐ Estimate  
**Collection (if not collected previously)?** ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

---

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
**Accuracy of Coordinates/GPS Error:** +/- \_\_\_\_\_ ☐ meters ☐ feet  
**Observation Location:** \_\_\_\_\_ ☐ State Plane (feet) ☐ UTM

---

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
**Vegetation Community:** CRS  
**Landowner/Manager:** City of SD Park + Rec  
**Overall Site Quality\*\*** ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
**Surrounding land use:** adjacent area 10% non-native grasses  
**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):** \_\_\_\_\_  
**Management Recommendation/s:** \_\_\_\_\_

---

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species - Dominant	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Deinandra conjugens</i>							
<i>Amelita</i> sp.							
<i>Eriogonum fasciculatum</i>							
<i>Rhus integrifolia</i>							

---

**IV. SITE PHOTOMONITORING**  
**Camera type:** \_\_\_\_\_

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

---

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: Presence/absence survey only (no habitat assessment/photo monitoring); EPS'd population boundaries.  
 Site NOT recommended for monitoring per CBI 2005.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Dudleya variegata Common Name: Variegated Dudleya  
 Site Name: Santa Luz Management Unit #: TBN  
 Date: 5/22/2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: JASMINE WATERS - HELIX Environmental  
JENNIFER VAUGHAN - City of SD MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 70 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 0.5 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate  
 Units

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 41 ☐ meters ☐ feet

Observation Location: 4289735.906 1940293.505 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Coastal Sage Scrub

Landowner/Manager: City of SD Parks & Rec

Overall Site Quality\*\* ☐ Very Good-Excellent

☒ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Non-native grasses  
(actively weeded in immediate vicinity of existing population)

Management Recommendation/s:

Population currently protected by chicken wire and non-native grasses have been removed

\*CONTINUE CURRENT EFFORTS\*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Deinandra fasciculata</u>	<u>50</u>			<u>Avena sp. *</u>	<u>1</u>		
<u>Rhus integrifolia</u>	<u>1</u>			<u>Brassica sp. *</u>	<u>1</u>		
<u>Eriogonum fasciculata</u>	<u>2</u>			<u>Calystegia macrostegia</u>	<u>1</u>		
<u>Baccharis distachyon *</u>	<u>5</u>			<u>Cynara</u>	<u>1</u>		
<u>Bromus madritensis *</u>	<u>1</u>			<u>Caryza canadensis *</u>	<u>1</u>		
<u>Vulpia myuros *</u>	<u>1</u>			<u>Nassella sp.</u>	<u>1</u>		
<u>Artemisia californica</u>	<u>5</u>			<u>Erodium sp. *</u>	<u>1</u>		
<u>Isocoma menziesii</u>	<u>5</u>			<u>Dudleya variegata</u>	<u>1</u>		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

4289735.906 1940293.505

Location [State Plane (ft)]

Direction (facing) SW, W, NW

Height 1.1m

Camera Angle Level

Photo # 278-280

File location/s L MSCP

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: Population located near small rock pile depicted in left half of photo

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



	100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

<u>Species</u>	<u>Cover</u>
<i>Sonchus asper</i> *	< 1
<i>Chlorogalum pomeridianum</i>	1
<i>Anagallis arvensis</i> *	< 1
<i>Anthemis cotula</i> *	1

**Photo 67. *Dudleya variegata* (Variegated Dudleya)  
Santa Luz**



Panorama from Northeastern edge of population, facing Southwest, West, Northwest.  
Panorama location is 6289735.96 1940293.56 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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*Eryngium aristulatum* var. *parishii*  
San Diego Button Celery



© City of San Diego, 2005



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Eryngium aristulatum Common Name: San Diego Button Celery  
 Site Name: DPI Mar Mesa Obs. 1 Management Unit #: N/A  
 Date: 4/24/08 Management Regime: N/A  
 Surveyors and Affiliation/Agency: KFI Balo - City of San Diego - Metro  
Jamiro Walls - Helix Environmental

Species Found? ☒ Yes ☐ No

Total No. Individuals: 500 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 135.45 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4 ☒ meters ☐ feet

Observation Location: 0280079.137 1925055.17 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Vernal pool, chamise chaparral

Landowner/Manager: City of San Diego Park and Recreation (MHPA)

Overall Site Quality\*\* ☒ Very Good-Excellent

☐ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Area is fenced  
NON-Native grass cover high

Management Recommendation/s:

control non-natives

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Brodiaea orcutii</u>	<u>2</u>			<u>Adenostoma fasciculatum</u>	<u>1</u>		
<u>Eryngium aristulatum</u>	<u>3</u>			<u>Sisyrinchium bellum</u>	<u>5</u>		
<u>Delandria fasciculatum</u>	<u>35</u>			<u>Selaginella</u> gsp	<u>1</u>		
<u>Navaretia hamata</u>	<u>2</u>			<u>Juncus butcheri</u>	<u>1</u>		
<u>Crassula comata</u>	<u>1</u>			<u>Isocoma menziesii</u>	<u>3</u>		
<u>Barnus madritensis</u> gsp w/obs	<u>4</u>			<u>Hypochaeris glabra</u>	<u>1</u>		
<u>Vulpia myuros</u>	<u>2</u>			<u>Nastella pulchra</u>	<u>1</u>		
<u>Psilocampylos brevissimus</u>	<u>1</u>			<u>Deschampsia danthonioides</u>	<u>1</u>		

## IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A7S

0280079.137 1925055.17 NW, N, NE, E

Location [State Plane (ft)]

Direction (facing)

Height

1m 10° downward

Camera Angle

Photo #

17-12 L: MSCP/monitoring

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: same photopoint for Brodiaea orcutii

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



**Photo 68. *Eryngium aristulatum* var. *parishii*  
(San Diego Button Celery)  
Del Mar Mesa Observation # 1**



Panorama from Northeastern edge of population, facing Northwest, North, Northeast, East.  
Panorama location is 6280079.13 1925055.17 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



**Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form**  
parishii

Scientific Name: Eryngium aristulatum var. parishii Common Name: Butter Celeriac  
 Site Name: Del Mar Mesa Obs 2 Management Unit #: TBA  
 Date: 29 April 2008 Management Regime: TBA  
 Surveyors and Affiliation/Agency: Keli Rulo - City of San Diego  
Jasmine Watts - HELIX Environmental

Species Found? ☒ Yes ☐ No  
 Total No. Individuals: 300 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 3277.99 ft<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_  
 Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet  
 Observation Location: 6280710.349 1924749.96 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: vernal pool, southern mixed chaparral  
 Landowner/Manager: City of San Diego Parks and Recreation  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
NDN - native species  
 Management Recommendation/s:  
area is fenced

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Bloomeria clevelandii</u>	<u>1</u>			<u>Adenostema fasciculata</u>	<u>5</u>		
<u>Penstemon fasciculatus</u>	<u>10</u>			<u>Vulpia myuros</u>	<u>2</u>		
<u>Poa annua</u>	<u>8</u>			<u>Bromus madritensis tuberosus</u> *	<u>1</u>		
<u>Navahua hamata</u>	<u>3</u>			<u>Crassula adanifolia</u>	<u>1</u>		
<u>Crassula coronata</u>	<u>1</u>			<u>Eriogonum fasciculatum</u>	<u>2</u>		
<u>Cerastium ventosum</u>	<u>1</u>			<u>Psilocarphus brevissimus</u>	<u>1</u>		
<u>Eryngium aristulatum</u>	<u>4</u>			<u>Deschampsia cespitosa</u>	<u>1</u>		
<u>Avena sp. *</u>	<u>1</u>			<u>Callitriche maritima</u>	<u>1</u>		

**IV. SITE PHOTOMONITORING**  
 Camera type: Canon Powershot A7S  
6280710.349 1924749.96 SW, W, NW, N, NE 1.1m downward 10° 127-132 L MSCP  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 \_\_\_\_\_  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: Same photo point for Bloomeria clevelandii Obs 2  
Poa annua Obs 2

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 69. *Eryngium aristulatum* var. *parishii*  
(San Diego Button Celery)  
Del Mar Mesa Observation # 2**



Panorama from Northern edge of population, facing Southwest, West, Northwest, North, Northeast.  
Panorama location is 6280710.349 1924749.96 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Eryngium aristulatum var. parishii</u>		Common Name: <u>SAN DIEGO BUTTER CUP</u>	
Site Name: <u>DEL MAR MESA OBS. #3</u>		Management Unit #: <u>N/A</u>	
Date: <u>4/29/2008</u>		Management Regime: <u>N/A</u>	
Surveyors and Affiliation/Agency: <u>Kell Balo - CITY OF SAN DIEGO, METRO</u> <u>JASMINE WATTS - HELIX ENVIRONMENTAL</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 1000 ☐ Exact ☒ Estimate (if not, why (if reason known or suspected)?  
 Population/Subpopulation Area: 68363.9 f12 ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously check vernal pool shapefile (H)

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet  
 Observation Location: 6283747.178 1925705.54 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: vernal pool / scrub oak chaparral  
 Landowner/Manager: CITY OF SAN DIEGO  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
Area is fenced  
NON-NATIVE grass cover high

Management Recommendation/s:  
control NON-NATIVE grasses

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <u>Brodiaea orcutii</u>	1			H <u>Bromus madritensis ssp. rubens</u>	1		
H <u>Mariposa laevis</u>	2			H <u>Vulpia myuros</u>	1		
H <u>Delandrea fasciculata</u>	80			H <u>Centaurea melitensis</u>	1		
H <u>Eryngium aristulatum</u>	3			H <u>Polypogon monspeliensis</u>	1		
S <u>Quercus dumosa</u>	1						
H <u>Lotus spp.</u>	1						
H <u>Navarretia namata</u>	1						
H <u>Crassula aquatica</u>	1						

### IV. SITE PHOTOMONITORING

Camera type: CANNON POWERSHOT A75  
6283747.178 1925705.54 E, SE, S, SW, W 1m 5° downward 139-142 L: MSCP monitoring

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments:  
vernal pool ID H series

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 70. *Eryngium aristulatum* var. *parishii*  
(San Diego Button Celery)  
Del Mar Mesa Observation # 3**



Panorama looking at the Southwestern edge of the population, facing Southeast, South, Southwest, West.  
Panorama location is 6283747.18 1925705.54 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Eryngium aristulatum var. parishii Common Name: SAN DIEGO BUTON CELER  
 Site Name: General Dynamics E Pt (1) Management Unit #: TBD  
 Date: 5/10/08 Management Regime: TBD  
 Surveyors and Affiliation/Agency: Betsy Miller, City of San Diego, MSCP  
Randy Rodriguez CDFG

Species Found? ☒ Yes ☐ No  
 Total No. Individuals: 2,500 ☐ Exact ☒ Estimate (if not, why (if reason known or suspected)?  
 Population/Subpopulation Area: 2872.08 ft<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_  
 Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: +/- 4 ☒ meters ☐ feet  
 Observation Location: 6291938.04 1880820.13 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: DCSS, vernal pool  
 Landowner/Manager: private - LNR Kearny Mesa Inc  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: transportation, industrial, office park  
 Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): well-travelled path on N side of site  
 Management Recommendation/s: continue access restriction/signage

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <u>Brodiaea orcutii</u>	15			H <u>Erodium spp.</u>	7		
H <u>Dienandrea fasciculata</u>	50			H <u>Navaretia romana</u>	1		
H <u>Eryngium aristulatum</u>	10			H <u>Eriophyllum confertiflorum</u>	1		
H <u>Psilochorus brevissimus</u>	7			S <u>Ipocoma menziesii</u>	1		
H <u>Pogogyne ambigua</u>	2			S <u>Baccharis sarothroides</u>	5		
H <u>Lithium hyssopifolium</u>	2			S <u>Artemisia californica</u>	15		
H <u>Yulpa spp. *</u>	2			S <u>Opuntia spp.</u>	2		
S <u>Eriogonum fasciculatum</u>	5			S <u>Xyllocolus biocolor</u>	1		
				H <u>Centaurea mollis</u>	1		

**IV. SITE PHOTOMONITORING**  
 Camera type: CANON POWERSHOT A7S  
6291938.04 1880820.13 SE-S-JW-W 1-1M ~10° down 153-158 L:MSCP/M  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: site in excellent condition given isolated (developed) location  
same photo point as Brodiaea orcutii, vernal pool ID N8

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 71. *Eryngium aristulatum* var. *parishii*  
(San Diego Button Celery)  
General Dynamics Eastern Observation**



Panorama from Southwestern edge of population, facing Southeast, South, Southwest, West.  
Panorama location is 6291938.04 1880820.13 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Eryngium aristulatum* var. *parishii* Common Name: *San Diego button cholla*  
 Site Name: *Port Mesa / Spring Canyon #1* Management Unit #: *780*  
 Date: *5/30/08* Management Regime: *780*  
 Surveyors and Affiliation/Agency: *John Miller City of San Diego MSCP*  
*Jennifer Vaughan City of San Diego MSCP*

Species Found? ☒ Yes ☐ No  
 Total No. Individuals: *350* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *20778.30* *ft<sup>2</sup>* ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously *see vernal pool shapefile (2008)*  
 If yes: Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: *+/- 1* ☒ meters ☐ feet  
 Observation Location: *4330499.213* *1781402.689* ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: *vernal pool, non-native grasslands*  
 Landowner/Manager: *City of San Diego Park and Recreation Open Space*  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: *open space*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
*ORT; non-native grass thatch; illegal trespass, dumping, grazing (chickadee acacias)*  
 Management Recommendation/s:  
*non-native grass thatch removed + area fenced as part of TransNet grant vernal pool project*

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Deinandra fasciculata</i>	30			<i>Salsola tragus</i>	<1		
<i>Simmondsia chinensis</i>	10						
<i>Erodium</i> sp.	20						
<i>Lepidium</i> sp. (annual) *	1						
<i>Bromus madritensis</i> sp. r.	1						
<i>Eryngium aristulatum</i>	3						
<i>Rhizophora breviflorus</i>	1						
<i>Silene acaulis</i>	5						

**IV. SITE PHOTOMONITORING**  
 Camera type: *Canon Powershot A75*  
*4330499.213* *1781402.689* *N-E-S* *1.1m* *slight down 30°-310* *L: MSCP/monit*  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: *low species cover due to recent dethatch effort*  
*VERNAL pools J 10-18 vernal*



**Photo 72. *Eryngium aristulatum* var. *parishii*  
(San Diego Button Celery)  
Goat Mesa/Spring Canyon Observation # 1**



Panorama from Eastern edge of population, facing North, East, South.  
Panorama location is 6330499.21 1781402.689 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

parishii

Scientific Name: *Eryngium aristulatum* var. *parishii* Common Name: San Diego button cholla  
 Site Name: Goat Mesa / Spring Canyon Pt 2 Management Unit #: TBO  
 Date: 5/30/08 Management Regime: TBO  
 Surveyors and Affiliation/Agency: Jody Miller City of San Diego MSCP  
 Jennifer Vaughan City of San Diego MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 100 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 20778.38 ft<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously see 2005 vernal pools data (J 10-18)  
 If yes: Collector Collection Number Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 21 ☒ meters ☐ feet  
 Observation Location: U329894.690 1781801.518 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: vernal pool, maritime succulent scrub-adjacent  
 Landowner/Manager: City of San Diego Park + Recreation Open Space  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

ORTs; illegal trespass; non-native grass thatch

Management Recommendation/s:

Site has been fenced + non-native grass removed as part of the 2006 TransNet grant vernal pool project

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Sisymbrium chinensis</i>	5			plant	<1		
<i>Desmodium illinoense</i>	3			<i>Eriogonum fasciculatum</i>	<1		
<i>Eryngium aristulatum</i>	3						
<i>Rhus integrifolia</i>	1						
<i>Salsola tragus</i>	<1						
<i>Bromus sp.</i> *	<1						
<i>Cylindropuntia prolifera</i>	<1						
<i>Amaranthus sp.</i>	<1						

## IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A7S  
 Location [State Plane (ft)]: U329894.640 1781801.518 Direction (facing): S-W-N Height: 1.1m Camera Angle: ~10° down Photo #: 311-315 File location/s: 4/mSCP  
 Location [State Plane (ft)]: Direction (facing): Height: Camera Angle: Photo #: File location/s:

## V. OTHER FIELD NOTES

Other Field Notes/Comments: low species cover due to recent de-thatch efforts  
 vernal pools J 10-18 series

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 73. *Eryngium aristulatum* var. *parishii*  
(San Diego Button Celery)  
Goat Mesa/Spring Canyon Observation # 2**



Panorama from Northern edge of population, facing South, West, North.  
Panorama location is 6329894.69 1781861.52 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Eryngium aristulatum* var. *parishii* Common Name: *San Diego button chrysanthemum*  
 Site Name: *Olney Lakes* Management Unit #: *n/a*  
 Date: *4/15/08* Management Regime: *n/a*  
 Surveyors and Affiliation/Agency: *Julie Miller City of San Diego*  
*Jasmine Wlatko Habitat Env*

Species Found? ☒ Yes ☐ No

Total No. Individuals: *100* ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: *3* *ac* ☐ Exact (based on GPS mapping) ☒ Estimate  
 Units

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- *<1* ☒ meters ☐ feet  
 Observation Location: *0350775.901* *1807379.03* ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: *vernal pool*  
 Landowner/Manager: *City of San Diego Water Dept*  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: *open space/waterfished protection lands*

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

*Some non-native grasses*  
*2) 1 Border Patrol tracks, 0 damage as*  
*act ground is already dry*

Management Recommendation/s:

*continue access limitations*  
*and invasive species/dethatch*  
*removal*

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
* <i>Hordeum</i> spp.	3			<i>Cuscuta</i> spp.	3		
* <i>Bromus matitensis</i> ssp. <i>californicus</i>	7			<i>Eryngium aristulatum</i>	3		
* <i>Bromus hordeaceus</i>	7			<i>Psilocarphus brevissimus</i>	10		
* <i>Avena</i> spp.	8			<i>Castilleja mollis</i>	4		
* <i>Lolium multiflorum</i>	10			<i>Bloomeria clevelandii</i>	21		
<i>Desmodium illinoense</i>	45			<i>Salsola tragus</i>	41		
* <i>Erodium</i> spp.	8						
<i>Croton texensis</i>	1						

## IV. SITE PHOTOMONITORING

Camera type: *Canon Powershot A75*  
*0350775.901* *1807379.03* *NE, E, SE* *1.1m* *~10° down* *91-97* *4/24/08*  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 74. *Eryngium aristulatum* var. *parishii*  
(San Diego Button Celery)  
Otay Lakes**



Panorama from Northeastern edge of population, facing Northeast, East, Southeast.  
Panorama location is 6356775.91 1807379.03 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

*Lessingia filaginifolia*  
Del Mar Sand Aster



© City of San Diego, 2005



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Lessingia filaginifolia* var. *linifolia*

Site Name: Carmel Mountain

Common Name: Del Mar sand Aster

Date: July 11, 2008

Management Unit #: TBA

Surveyors and Affiliation/Agency: Betsy Miller - City of San Diego - MSCP  
Jennifer Vaughan - City of San Diego - MSCP

Management Regime: TBA

Species Found? ☒ Yes ☐ No

Total No. Individuals: 7 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 11658.29 M<sup>2</sup>

☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)?  
If yes: ☐ Yes ☒ No ☐ Collected Previously

Based on 2003 population data

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +10 41 meters ☒ meters ☐ feet

Observation Location: 0263325.45 1921294.23

☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: coastal sage scrub

Landowner/Manager: City of San Diego

Overall Site Quality\*\*

☐ Very Good-Excellent

☐ Fair to Good

☒ Poor \*

☐ Very Poor

Surrounding land use: open space, residential

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

erosion due to abandoned road, existing trails

Management Recommendation/s:

erosion control measures

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Lessingia filaginifolia</i> var. <i>lin.</i>	1			<i>Lepidium</i> sp.*	41		
<i>Adiantum fasciculata</i>	20			<i>Leontodon aurea</i> *	41		
<i>Hieracium californicum</i>	3			<i>Chenopodium glaberrimum</i> (seeds)	1		
<i>Eriogonum fasciculatum</i>	3						
<i>Erigeron phillyriaefolius</i> sp. rubens*	3						
<i>Mesembryanthemum</i> sp.*	1						
<i>Stephanomeria</i> sp.	<1						
<i>Salsola tragus</i> *	41						

## IV. SITE PHOTOMONITORING

Camera type: Canon Power Shot A75

0263325.45 1921294.23

Location [State Plane (ft)]

Direction (facing)

1.1m Height

~5° down Camera Angle

409-413 Photo #

L MSCP File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

erosion issues Site quality note: low cover invasives, major

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 76. *Lessingina filaginifolia* var. *linifolia*  
(Del Mar Sand Aster)  
Carmel Mountain**



Panorama from Northwestern edge of population, facing Southeast, South, Southwest.  
Panorama location is 626325.45 1921294.23NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Lessingia filaginifolia* var. *linifolia*  
 Site Name: CRPST Canyon #1  
 Date: July 11, 2008  
 Surveyors and Affiliation/Agency: BPTSV MILLER - CITY OF SAN DIEGO - MSCP  
 Jennifer Vaughan - CITY OF SAN DIEGO - MSCP  
 Common Name: Del Mar sand Aster  
 Management Unit #: TBA  
 Management Regime: TBA

Species Found? ☒ Yes ☐ No

Total No. Individuals: 250 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 404.108 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 4 ☒ meters ☐ feet

Observation Location: 0253253.09 1929139.20 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: open CSS (includes some pines)  
 Landowner/Manager: CITY OF SAN DIEGO AND DEL MAR PARK AND RECREATION

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space, residential

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

ice plant invading portions of population, appears that removal methods used historically

Management Recommendation/s:

monitor ice plant, trails, remove ice plant, fence trails as necessary

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; \*Cover\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Carpodacus edulis</i>	8			* <i>Centauria nelfiensis</i>	1		
<i>Docama menziesii</i>	10			* <i>Trinervia nudicaulis</i> sp. rubens	1		
<i>Lessingia filaginifolia</i> var. <i>lin.</i>	30			<i>Stephanomeria</i> spp.	<1		
<i>Apocynum californicum</i>	10						
<i>Eriogonum fasciculatum</i>	3						
<i>Lotus scoparius</i>	1						
<i>Pinus torreyana</i>	3						
<i>Encelia californica</i>	5						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A75

0253253.09 1929139.20

Location (State Plane (ft))

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location (State Plane (ft))

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

as 2001 gps data population appears to be similar in size/shape

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 77. *Lessingina filaginifolia* var. *linifolia*  
(San Diego Sand Aster)  
Crest Canyon #1**



Panorama from Southern edge of population, facing South, Southwest, West.  
Panorama location is 6253253.09 1929139.26 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

*linifolia*

Scientific Name: *Lessingia filaginifolia* var. *linifolia* Common Name: Del Mar sand Aster

Site Name: Crest Canyon Pt 2 Management Unit #: TBA

Date: 7/11/08 Management Regime: TBA

Surveyors and Affiliation/Agency: Betsy Miller - City of San Diego - MSCP  
Jennifer Vaughan - City of San Diego - MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 25 ☐ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 404.68 M2 ☐ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector: Collection Number: Museum/Herbarium:

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +0 4 ☒ meters ☐ feet

Observation Location: 0253508.28 1930813.34 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: coastal sage scrub

Landowner/Manager: City of San Diego Parks + Recreation

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space, residential

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): some invasive species - do not appear to impact Lefi

Management Recommendation/s: NONE

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Lessingia filaginifolia</i> var. <i>linifolia</i>	3			<i>Pseudotsuga</i> spp.	<1		
<i>Rhus integrifolia</i>	3			<i>Marrubium maciocarpum</i>	<1		
<i>Asteris californica</i>	5			<i>Opuntia</i> spp.	1		
<i>Bromus diandrus</i> *	10			<i>Antirrhinum nuttallianum</i>	<1		
<i>Bromus modestus</i> ssp. <i>rubens</i> *	5			<i>Encelia californica</i>	1		
<i>Eriogonum fasciculatum</i>	15			<i>Arena</i> spp. *	<1		
<i>Stephanomeria</i> spp.	1			<i>Croton californicus</i>	1		
<i>Chaenactis glaberrima</i>	15						

**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A75

0253508.28 1930813.34 S-SE-E 11m 50° up 399-402 L MSCP

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 77. *Lessingina filaginifolia* var. *linifolia*  
(San Diego Sand Aster)  
Crest Canyon #2**



Panorama from Eastern edge of population, facing South, Southeast, East.  
Panorama location is 6253508.28 1930813.34 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Lessingia flaginifolia* var. *linifolia*  
 Site Name: Del Mar mesa Common Name: Del Mar sand aster  
 Date: July 11, 2008 Management Unit #: TBA  
 Surveyors and Affiliation/Agency: Arby Miller City of San Diego MSCP  
Jennifer Vaughan San Diego MSCP Management Regime: TBA

Species Found? ☒ Yes ☐ No

Total No. Individuals: 11 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 400 112 Units ☐ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +D 4 ☒ meters ☐ feet

Observation Location: 0270858.59 1922300.50 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: sparse chamise chaparral

Landowner/Manager: City of San Diego Park + Recreation

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space, residential

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

adjacent trail does not appear to impact site

Management Recommendation/s:

monitor trail; fence if impacts

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Leptodermis fasciculata</i> (scrub)	8			<i>Eriogonum fasciculatum</i>	3		
<i>Acanthaceae fasciculata</i>	2			<i>Artemisia californica</i>	1		
<i>Nanella</i> sp.	1			<i>Bromus madritensis</i> sp. rub.	1		
<i>Quercus</i> sp.	3			<i>Asmodensia tenella</i>	1		
<i>Lessingia flaginifolia</i>	1			<i>Mimulus aurantiacus</i>	1		
<i>Salvia melifera</i>	5						
<i>Podanthus rigida</i>	1						
<i>Cutleria</i> sp. cf.	1						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

0270858.59 1922300.50

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: lots of bare ground

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



**Photo 75. *Lessingina filaginifolia* var. *linifolia*  
(Del Mar Sand Aster)  
Del Mar Mesa**



Panorama from Western edge of population, facing West, Northwest, North.  
Panorama location is 6276858.59 1922306.58 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Lessingia filaginifolia* var. *linifolia*  
 Site Name: OVERLOOK PARK  
 Date: JULY 11, 2008  
 Surveyors and Affiliation/Agency: Betsy Miller - City of San Diego - MSCP  
 Jennifer Vaughan - City of San Diego - MSCP  
 Common Name: DEL MAR SAND ASTER  
 Management Unit #: TBA  
 Management Regime: TBA

Species Found? ☒ Yes ☐ No

Total No. Individuals: 150 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 3051 13 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 41 ☒ meters ☐ feet  
 Observation Location: 4257740.59 1930674.84 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: chaparral  
 Landowner/Manager: CITY OF SAN DIEGO  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space, recreation, residential

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Management Recommendation/s:

none within population; nearby trail etc - edge effects

maintain fence

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Lessingia filaginifolia</i> var. <i>lin.</i>	5			<i>Stephanomeria</i> spp.	<1		
<i>Eriodictyon confertifolium</i>	7			<i>Brassica</i> sp.	<1		
<i>Salvia mellifera</i>	15			<i>Marah macrocarpa</i>	<1		
<i>Phacelia integrifolia</i>	1			<i>Yucca schottigera</i>	1		
<i>Molonia laurina</i>	1			<i>Phacelia strobilata</i> c.f.	1		
<i>Zornia maculosa</i> sp. rubens	3			<i>Clitoria californicus</i>	<1		
<i>Chaenactis glabrisepala</i>	1			<i>Melica imperfecta</i>	1		
<i>Adenostoma brevicaule</i>	1			<i>Diosanthemum</i> sp.	1		

## IV. SITE PHOTOMONITORING

Camera type: POWERSHOT A15

4257740.59 1930674.84

Location (State Plane (ft))

NE-E-SE  
 Direction (facing)

1.1m  
 Height

~50 down  
 Camera Angle

425-408  
 Photo #

MSCP  
 File location/s

Location (State Plane (ft))

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



**Photo 78. *Lessingina filaginifolia* var. *linifolia*  
(Del Mar Sand Aster)  
Overlook Park**



Panorama from Southeastern edge of population, facing Northeast, East, Southeast.  
Panorama location is 6257740.59 1930674.84 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Lessingia filaginifolia var. linifolia Common Name: Del Mar sand aster  
 Site Name: Torrey Highlands Management Unit #: TBA  
 Date: JULY 11, 2008 Management Regime: TBA  
 Surveyors and Affiliation/Agency: Betsy Miller - city of San Diego - MSCP  
Jennifer Vaughan - city of San Diego - MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: 400

☐ Exact

☒ Estimate (use orders of 10, 100 and 1000 for estimates)

If not, why (if reason known or suspected)?

Population/Subpopulation Area: 391

m<sup>2</sup>

☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)?

☐ Yes

☒ No

☐ Collected Previously

If yes:

Collector

Collection Number

Museum/Herbarium

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 4

☒ meters

☐ feet

Observation Location: 4243114.76

1932803.94

☒ State Plane (feet)

☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: sparse coastal sage scrub

Landowner/Manager: city of San Diego

Overall Site Quality\*\*

☒ Very Good-Excellent

☐ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: open space, residential

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

trail does not appear to impact population

Management Recommendation/s:

monitor trail - if impacts fence

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species = List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Lessingia filaginifolia var. linifolia</u>	<u>15</u>			<u>Bromus diandrus *</u>	<u>1</u>		
<u>Lotus scoparius</u>	<u>8</u>			<u>Baccharis sarothroides</u>	<u>1</u>		
<u>Avena sp. *</u>	<u>4</u>			<u>Cordylanthus rigida</u>	<u>2</u>		
<u>Opuntia sp.</u>	<u>1</u>			<u>Equisetum maculatum ssp. rubens *</u>	<u>1</u>		
<u>Salvia mellifera</u>	<u>1</u>			<u>Chenopodium glaberrimum</u>	<u>4</u>		
<u>Camissonia tenella</u>	<u>2</u>			<u>Brassica sp. *</u>	<u>4</u>		
<u>Stephanomeria sp.</u>	<u>1</u>			<u>Croton californicus</u>	<u>10</u>		
<u>Artemisia californica</u>	<u>1</u>			<u>Ambrosia psilostachya</u>	<u>2</u>		
				<u>Festuca rubra (gr.)</u>	<u>1</u>		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A75

4243114.76

1932803.94

N-NW-N

1.1m

0°

419-423

L MSCP

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

Location [State Plane (ft)]

Direction (facing)

Height

Camera Angle

Photo #

File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments:

population area appears similar to 2005 eps

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed



**Photo 79. *Lessingina filaginifolia* var. *linifolia*  
(Del Mar Sand Aster)  
Torrey Highlands**



Panorama from Northern edge of population, facing West, Northwest, North.  
Panorama location is 6263114.76 1932803.94 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

*Lotus nuttallianus*  
Nuttall's Lotus



© City of San Diego, 2001



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: LOTUS NUTTALLII

Common Name: NUTTALL'S LOTUS

Site Name: MARINER'S POINT

Management Unit #: TBD

Date: JUNE 2, 2008

Management Regime: TBD

Surveyors and Affiliation/Agency: JAMINE WATTS - HELIX ENVIRONMENTAL  
JENNIFER VAUGHAN - CITY OF SAN DIEGO, MSCP

Species Found? ☒ Yes ☐ No

Total No. Individuals: <50? ☐ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 9090.6 M<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: \_\_\_\_\_

Collector \_\_\_\_\_

Collection Number \_\_\_\_\_

Museum/Herbarium \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- \_\_\_\_\_ ☐ meters ☐ feet

Observation Location: \_\_\_\_\_ ☐ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: DUNE SCRUB

Landowner/Manager: CITY OF SAN DIEGO

Overall Site Quality\*\* ☒ Very Good-Excellent

☐ Fair to Good

☐ Poor

☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

NONE

Management Recommendation/s:

area fenced - NO NEW management

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Camissonia chrysantha</u>							
<u>Ambrosia umbellata</u>							
<u>Bromus diandrus</u> *							
<u>Cakile maritima</u> *							

## IV. SITE PHOTOMONITORING

Camera type: \_\_\_\_\_

Location [State Plane (ft)] \_\_\_\_\_

Direction (facing) \_\_\_\_\_

Height \_\_\_\_\_

Camera Angle \_\_\_\_\_

Photo # \_\_\_\_\_

File location/s \_\_\_\_\_

Location [State Plane (ft)] \_\_\_\_\_

Direction (facing) \_\_\_\_\_

Height \_\_\_\_\_

Camera Angle \_\_\_\_\_

Photo # \_\_\_\_\_

File location/s \_\_\_\_\_

## V. OTHER FIELD NOTES

Other Field Notes/Comments: presence/absence survey  
species population fenced in because of Least tern nesting area

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Lotus nuttallianus</u>		Common Name: <u>Nuttall's Lotus</u>	
Site Name: <u>Mission Bay - Dune Triangle</u>		Management Unit #: <u>TBD</u>	
Date: <u>20 May 2008</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller + Jennifer Vaughn - City of SD MSCP</u> <u>Jasmine Watts - HELIX Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 20 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 50.74 M<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
Units see 2008 file

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet

Observation Location: W266528.3991 1858616.164 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Sand dunes, CSS species colonizing

Landowner/Manager: City of San Diego Parks + Rec.

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space, transportation

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>Abundance of non-natives</u>	Management Recommendation/s: <u>Control non-native species, expand current efforts</u>
--	---

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Mesembryanthemum crystallinum*</u>	<u>7</u>			<u>Lotus nuttallianus</u>	<u>1</u>		
<u>Isocoma menziesii</u>	<u>7</u>			<u>Iva haysiana</u>	<u>1</u>		
<u>Eriogonum fasciculatum</u>	<u>4</u>			<u>Brassica spp. (washed)</u>	<u>1</u>		
<u>Chrysanthemum coronarium*</u>	<u>2</u>			<u>Unknown plant*</u>	<u>1</u>		
<u>Conyza canadensis*</u>	<u>1</u>						
<u>Eucalyptus californica</u>	<u>3</u>						
<u>Heliotropium curassavicum</u>	<u>1</u>						
<u>Melilotus indicus*</u>	<u>10</u>						

### IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

<u>W266528.3991</u>	<u>1858616.164</u>	<u>N.E. S.E.S. SW</u>	<u>1.1m</u>	<u>10°-15° down</u>	<u>236-242</u>	<u>L:MSCP</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: Invasive removal effort occurring on western side of population

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 81. *Lotus nuttallianus* (Nuttall's Lotus)  
Mission Bay – Dune Triangle**



Panorama from the Southern edge of population, facing Northeast, East, Southeast, South, Southwest.

Panorama location is 6266528.38 1858616.164 NAD83 State Plane California Zone 6 (feet)

Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Lotus nultalianus* **Common Name:** Nuttall's Lotus  
**Site Name:** Mission Bay - Hospitality Pt **Management Unit #:** TBD  
**Date:** May 20, 2008 **(Site 2) Management Regime:** TBD  
**Surveyors and Affiliation/Agency:** Boby Miller, Jennifer Vaughan City of San Diego  
Jasmine Wolk Heli Environmental

---

**Species Found?** ☒ Yes ☐ No  
**Total No. Individuals:** 350 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
**Population/Subpopulation Area:** 5505.29 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
**Collection (if not collected previously)?** ☐ Yes ☒ No ☐ Collected Previously  
If yes: \_\_\_\_\_  
Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

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### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

**Accuracy of Coordinates/GPS Error:** +/- <1 ☒ meters ☐ feet  
**Observation Location:** 10250896.00 1857539.00 ☒ State Plane (feet) ☐ UTM

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### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

**Vegetation Community:** coastal dunes  
**Landowner/Manager:** City of San Diego Park + Recreation  
**Overall Site Quality\*\*** ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
**Surrounding land use:** park, trail, bay  
**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):** surrounded by developed areas but fencing/signs appear to be functioning  
**Management Recommendation/s:** continue maintenance of signs/fences; control Bromus diandrus

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### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
**Species=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).**

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
S <i>Lotus nuttallianus</i>	4			H <i>Erodium spp.*</i>	5		
H <i>Ambrosia chamissonis</i>	1						
H <i>Bromus diandrus*</i>	15						
H <i>Parnassia cheiranthifolia</i>	8						
T <i>Muhlenbergia filifera*</i>	3						
H <i>Cynodon dactylon</i>	1						
H <i>Melilotus indica</i>	3						
H <i>Abronia cumbellata</i>	1						

UNKNOWN PLANT

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### IV. SITE PHOTOMONITORING

**Camera type:** Canon Powershot A75  
**Location [State Plane (ft)]** 10250896.00 **Direction (facing)** SW-NW **Height** 1m **Camera Angle** ~down 5° **Photo #** 247-250 **File location/s** L/mscp

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### V. OTHER FIELD NOTES

Other Field Notes/Comments:



**Photo 82. *Lotus nuttallianus* (Nuttall's Lotus)  
Mission Bay – Hospitality Point Site # 2**



Panorama from Southern edge of population, facing Southwest, West, Northwest.  
Panorama location is 6256896.06 1857539.66 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Lotus nuttallianus</u>		Common Name: <u>Nuttall's Lotus</u>	
Site Name: <u>Mission Bay Site 1</u>		Management Unit #: <u>TBD</u>	
Date: <u>20 MAY 2008</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>BETSY MILLER + JENNIFER VAUGHAN - CITY OF SD MSCP, JASMINE WATTS - TELIX Environmental</u>			
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Total No. Individuals: <u>100</u>		If not, why (if reason known or suspected)?	
<input type="checkbox"/> Exact <input checked="" type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)			
Population/Subpopulation Area: <u>35467.01</u>		<u>m<sup>2</sup></u> <input checked="" type="checkbox"/> Exact (based on GPS mapping) <input type="checkbox"/> Estimate	
		<u>see 2004 mapping</u>	
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Collected Previously	
If yes: _____			
Collector	Collection Number	Museum/Herbarium	
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
Accuracy of Coordinates/GPS Error: +/- <u>&lt;1</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
Observation Location: <u>W 267608.04U 1859784.459</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
Vegetation Community: <u>SAND DUNES</u>			
Landowner/Manager: <u>City of San Diego Parks + Rec.</u>			
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input type="checkbox"/> Fair to Good <input checked="" type="checkbox"/> Poor <input type="checkbox"/> Very Poor			
Surrounding land use: <u>Transportation Corridor, Open Space, Active Recreation</u>			
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):		Management Recommendation/s:	
<u>Dominance of non-natives (mustard, grasses) + approaching threat of chrysanthemum</u>		<u>Prevent chrysanthemum infestation, remove mustard and grasses</u>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit.			
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
<u>Heliotropium curassavicum</u>	<u>1</u>		
<u>Heterotheca grandiflora</u>	<u>1</u>		
<u>Bromus diandrus *</u>	<u>3</u>		
<u>Camissonia chionanthifolia</u>	<u>8</u>		
<u>Prodrum botrys *</u>	<u>5</u>		
<u>Brassica nigra *</u>	<u>20</u>		
<u>Chrysanthemum coronarium *</u>	<u>1</u>		
<u>Acacia sp. *</u>	<u>1</u>		
Species	Cover	Coll?	Coll. #
<u>Bromus madritensis *</u>	<u>1</u>		
<u>Lotus nuttallianus</u>	<u>3</u>		
<u>Carpobrotus edulis *</u>	<u>21</u>		
<u>Centaurea melitensis *</u>	<u>1</u>		
<u>Baccharis sarothraides</u>	<u>1</u>		
<u>Brassica sp. *</u>	<u>1</u>		
<b>IV. SITE PHOTOMONITORING</b>			
Camera type: <u>CANON POWERSHOT A7S</u>			
<u>W 267608.04U 1859784.459</u>	<u>SE, S, W, W</u>	<u>1m</u>	<u>5° down</u>
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle
			<u>221-225</u>
			Photo #
			File location/s
			<u>L. MSCP/monitoring</u>
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments: <u>Carpobrotus removal effort + last year by Caltrans - minimal occurrences this year / cover much reduced</u>			
<u>Site aka "No Man's Land"</u>			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 83. *Lotus nuttallianus* (Nuttall's Lotus)  
Mission Bay – No Man's Land Site # 1**



Panorama from Southwestern edge of population, facing Southeast, South, Southwest, West.  
Panorama location is 6267668.04 1859784.45 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Lotus nuttallianus</u>		Common Name: <u>Nuttall's Lotus</u>	
Site Name: <u>Mission Bay - Site 3</u>		Management Unit #: <u>TBD</u>	
Date: <u>20 MAY 2008</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>BETSY MILLER + JENNIFER VAUGHAN - City of SD MSCP</u> <u>JASMINE WATTS - HELIX Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: < 100 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates) from pt. ship

Population/Subpopulation Area: 10774.29 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously see 2008 pop data for Rip Rap -

Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 4 ☒ meters ☐ feet

Observation Location: 0258823.558 1857305.759 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: River bank / rip rap

Landowner/Manager: City of San Diego

Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☐ Poor ☒ Very Poor

Surrounding land use: S.D. River parking lot

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): Fountain grass abundance, level of river?

Management Recommendation/s: NONE

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Salicornia virginica</u>	<u>5</u>			<u>Chrysanthemum coronarium*</u>	<u>10</u>		
<u>Frankenia siliqua</u>	<u>5</u>			<u>Melilotus indicus *</u>	<u>1</u>		
<u>Distichlis spicata</u>	<u>2</u>			<u>Bomus diandrus *</u>	<u>1</u>		
<u>Pennisetum setaceum*</u>	<u>30</u>			<u>Heteranthera grandiflora</u>	<u>1</u>		
<u>Lotus nuttallianus</u>	<u>1</u>			<u>Avena sp. *</u>	<u>1</u>		
<u>Heteranthera curassavicum</u>	<u>1</u>			<u>Brassica sp. *</u>	<u>1</u>		
<u>Atriplex lentifolia</u>	<u>1</u>			<u>Jaumea carnosa</u>	<u>1</u>		
<u>Ambrosia psilostachya</u>	<u>1</u>						

### IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

0258823.558 1857305.759 W, W, NW 1m flat 243-246 L-MSCP monitoring

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: aka S.D. River Rip Rap

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 84. *Lotus nuttallianus* (Nuttall's Lotus)  
Mission Bay – San Diego River Rip Rap Site # 3**



Panorama from Southern edge of population, facing Southwest, West, Northwest.  
Panorama location is 6258823.56 1857305.76 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Lotus nuttallianus Common Name: Nuttall's Lotus  
 Site Name: Mission Bay - site 6/5/5/5/5/5 Management Unit #: TBD  
 Date: 20 MAY 2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: Betsy Miller - Jennifer Vaughn - City of SD MSCP  
Chasmine Watts - BDUX Environmental

Species Found? ☒ Yes ☐ No

Total No. Individuals: 500 ☐ Exact ☒ Estimate (if not, why (if reason known or suspected)?  
 Population/Subpopulation Area: 27669.79 M2 ☒ Exact (based on GPS mapping) ☐ Estimate  
 Units

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously Based on 2004 pop data  
 If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4 ☒ meters ☐ feet  
 Observation Location: 4260803.902 1859450.236 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: SAND DUNES / iceplant field  
 Landowner/Manager: City of San Diego Parks & Rec.  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☐ Poor ☒ Very Poor  
 Surrounding land use: Transportation Corridor, Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

Dominance of invasives  
(iceplant, chrysanthemum)

Management Recommendation/s:

Control invasives

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Chrysanthemum coronarium</u> *	<u>20</u>			<u>Camissonia sp.</u>	<u>1</u>		
<u>Carpobrotus edulis</u> *	<u>40</u>			<u>Lepidium lasiocarpum</u> *	<u>2</u>		
<u>Baccharis sarothroides</u>	<u>2</u>			<u>Erodium sp. *</u>	<u>2</u>		
<u>Brassica nigra</u> *	<u>20</u>			<u>Centauria melitensis</u> *	<u>&lt;1</u>		
<u>Avena sp. *</u>	<u>1</u>			<u>Crassula connata</u>	<u>1</u>		
<u>Socoma menziesii</u>	<u>1</u>			<u>Melilotus indicus</u> *	<u>2</u>		
<u>Lotus scopartus</u>	<u>1</u>			<u>Camissonia chieranthifolia</u>	<u>1</u>		
<u>Heterotheca grandiflora</u>	<u>1</u>						

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S  
4260803.902 1859450.236 S, SW, W NW 1.1m 10° down 226-232 L. MSCP monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: Photos 233-235 (GPS'd) of extant population  
\* Lotus nuttallianus occurs in trails/openings between iceplant patches

Vegetary Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 85. *Lotus nuttallianus* (Nuttall's Lotus)  
Mission Bay – South Shores Site # 6**



Panorama from Western edge of population, facing South, Southwest, West, Northwest.  
Panorama location is 6266803.80 1859450.24 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

*Monardella viminea*  
Willowy Monardella



© City of San Diego, 2005



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Monardella viminea* **Common Name:** Willowy Monardella  
**Site Name:** Lopez Canyon - West Terrace **Management Unit #:** TBD  
**Date:** 9 JUNE 2008 **Management Regime:** TBD  
**Surveyors and Affiliation/Agency:** BETSY MILLER - CITY OF SD MSCP  
 JASMINE WATTS - HELIX Environmental

**Species Found?** ☒ Yes ☐ No 17 CNPS Planted Seedlings - all dead  
 If not, why (if reason known or suspected)?  
**Total No. Individuals:** 1 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
**Population/Subpopulation Area:** 1459.15 m<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate  
 BASED ON 2004 POP DATA  
**Collection (if not collected previously)?** ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_  
 Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
**Accuracy of Coordinates/GPS Error:** 4 ☒ meters ☐ feet  
**Observation Location:** 0275731, 07 1913221, 29 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
**Vegetation Community:** Baccharis Scrub / coastal sage scrub  
**Landowner/Manager:** City of SD Parks & Rec.  
**Overall Site Quality\*\*** ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
**Surrounding land use:** Open Space  
**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):**  
 abundance of non-natives, some erosion  
**Management Recommendation/s:**  
 Control non-native grasser (Bromus spp., Vulpia sp.) + prevent Chrysanthemum population from expanding

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
Baccharis sarothroides	5			Vulpia myuros *	7		
Eriogonum fasciculatum	1			Bromus diandrus *	<1		
Brickellia californica	<1						
Brassica nigra *	3						
Monardella viminea	<1						
Amsinckia menziesii (dead)	5						
Cercocarpus miniiflorus	2						
Bromus madriensis rubens *	2						

**IV. SITE PHOTOMONITORING**  
**Camera type:** CANON POWERSHOT A7S  
 0275731 07 1913221, 29 S.W.W 1.1m 5° down 355-358 L:MSCP  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: 2nd + 3rd Monardella individuals located southwest of photo point towards sycamore grove (locations GPS'd) = HISTORIC POPULATIONS



**Photo 86. *Monardella viminea* (Willowy Monardella)  
Lopez Canyon – West Terrace Observation # 1**



Panorama from Southern edge of population, facing South, Southwest, West.  
Panorama location is 6275731.67 1913221.28 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

## Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: *Monardella villosa* Common Name: Willowy Monardella  
 Site Name: Lopez Canyon - East of Bridge #2 Management Unit #: TBD  
 Date: 9 June 2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: Betsy Miller - City of SD MSCP  
 JENNIFER WATTS - HPDIX Environmental

Species Found? ☒ Yes ☐ No 9 individuals total, 4 within photo monitoring plot  
 If not, why (if reason known or suspected)?  
 Total No. Individuals: 4 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: .01 acres ☐ Exact (based on GPS mapping) ☒ Estimate  
 Units  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector Collection Number Museum/Herbarium

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: +0 1 ☒ meters ☐ feet  
 Observation Location: 278287.201 1913733.06 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: Baccharis scrub / southern mixed chaparral  
 Landowner/Manager: City of SD Parks & Rec  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: Open space  
 Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): Non-native grasses & mustard  
 Management Recommendation/s: Control non-natives

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
Baccharis sarothroides	15			Vulpia myuros *	5		
Monardella villosa	1			Crassula connata	<1		
Brassica nigra *	5			Graphium sp.	<1		
Bromus diandrus *	1						
Bromus madritensis rubens *	3						
Brickellia californica	<1						
Opuntia littoralis	<1						
Eriogonum fasciculatum	<1						

**IV. SITE PHOTOMONITORING**  
 Camera type: CANON POWERSHOT A7S  
 278287.201 1913733.06 NE, E, SE 1.1m 5° down 359-361 L: MSCP  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: 2 of 4 plants growing adjacent to each other

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 87. *Monardella viminea* (Willowy Monardella)  
Lopez Canyon – East of Bridge Observation # 2**



Panorama from Southeastern edge of population, facing Northeast, East, Southeast.  
Panorama location is 6278287.28 1913733.66 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Monardella viminea</u>		Common Name: <u>Willow Monardella</u>	
Site Name: <u>Lopez Canyon - East of Bridge #3</u>		Management Unit #: <u>TBD</u>	
Date: <u>9 June 2008</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>BETSY MILLER - CITY OF SD MSCP</u> <u>JARMIE WATTS - HELIX Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 3 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: .41 acres ☐ Exact (based on GPS mapping) ☒ Estimate  
 Units

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 4 ☒ meters ☐ feet  
 Observation Location: 4279603.04 1914641.49 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Southern mixed chaparral / baccharis scrub  
 Landowner/Manager: City of SD Parks & Rec  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
 Surrounding land use: Open Space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
Abundance of invasives

Management Recommendation/s:  
Control invasives, prevent expansion of chrysanthemum

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Monardella viminea</u>	<u>1</u>			<u>Toxicodendron diversilobum</u>	<u>1</u>		
<u>Chrysanthemum coccineum</u> *	<u>1</u>			<u>Corchorus minutiflorus</u>	<u>1</u>		
<u>Vulpia myuros</u> *	<u>5</u>			<u>Na haysiana</u>	<u>1</u>		
<u>Bromus madritensis rubens</u> *	<u>2</u>			<u>Brassica nigra</u> *	<u>1</u>		
<u>Bromus diandrus</u> *	<u>3</u>						
<u>Centaurea melitensis</u>	<u>1</u>						
<u>Baccharis sarothroides</u>	<u>1</u>						
<u>Carduus pycnocephalus</u> *	<u>&lt;1</u>						

### IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S  
4279603.04 1914641.49 SW, W, NW 1.1m 5° down 362-365 L: MSCP  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

\_\_\_\_\_  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: \_\_\_\_\_

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 88. *Monardella viminea* (Willow Monardella)  
Lopez Canyon – East of Bridge Observation # 3**



Panorama from Southwestern edge of population, facing Southwest, West, Northwest.  
Panorama location is 6279603.64 1914641.49 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Monardella villosa* **Common Name:** Willowy Monardella  
**Site Name:** Mormon Valley **Management Unit #:** 700  
**Date:** June 5, 2006 **Management Regime:** TBD  
**Surveyors and Affiliation/Agency:** Peter Miller City of San Diego MSCP  
 Jennifer Vaughan City of San Diego MSCP

**Species Found?** ☒ Yes ☐ No  
**Total No. Individuals:** 95 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates) *based on 2006 GPS data at stable habitat conditions*  
**Population/Subpopulation Area:** 13340.03 m<sup>2</sup> ☐ Exact (based on GPS mapping) ☒ Estimate *use GPS mapping to determine*  
**Collection (if not collected previously)?** ☐ Yes ☒ No ☐ Collected Previously  
**If yes:** Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
**Accuracy of Coordinates/GPS Error:** +/- <1 ☒ meters ☐ feet  
**Observation Location:** 409398.72 1790116.116 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
**Vegetation Community:** seasonal creekbed, disturbed CSS (spr)  
**Landowner/Manager:** City of San Diego Water Department  
**Overall Site Quality\*\*** ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
**Surrounding land use:** open space for watershed protection  
**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):** frequent fire regime  
 invasion exotic grasses/type conversion  
**Management Recommendation/s:** fire management plan prepared

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Avena</i> spp.	3			<i>Brickellia californica</i>	1		
<i>Bromus maritimus</i> ssp. c.	3			* <i>Erodium</i> sp.	<1		
<i>Artemisia californica</i>	<1			* <i>Bromus hordeaceus</i>	2		
<i>Lesquerella incana</i>	1			<i>Stemella bicephala</i>	<1		
<i>Lepidium</i> spp.	<1			<i>Eriogonum fasciculatum</i>	<1		
<i>Lolium multiflorum</i>	2			<i>Viguiera lasiocarpa</i>	1		
<i>Brachyrus stracheyioides</i>	7			<i>Rhamnus crocea</i>	1		
<i>Monardella villosa</i>	1						

**IV. SITE PHOTOMONITORING**  
**Camera type:** Canon Powershot A7S  
**Location [State Plane (ft)]:** 409398.72 1790116.116 **Direction (facing):** SE-S-SW **Height:** 1.1 m **Camera Angle:** ~5° up **Photo #:** 328-330 **File location/s:** 1/MSCP

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: population stable post 10 years, habitat static, recommend GPSing population at 3 year intervals

\*\* Use Tardieu & Keighan Vegetation Condition Scale

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Species	cover
<i>Cuscuta</i> sp.	2
* <i>Bromus diandrus</i>	2
	1
<i>Ranunculus eschleri</i>	1
<i>Marah macrocarpus</i>	
<i>Lonicera subspicata</i> var. <i>denudata</i>	1
<i>Quercus</i> spp.	3
<i>Melica imperfecta</i>	4
<i>Ephedra californica</i>	4
<i>Hedyscymus cretica</i>	4

**Photo 89. *Monardella viminea* (Willow Monardella)  
Marron Valley**



Panorama from Southeastern edge of population, facing Southeast, South, Southwest.  
Panorama location is 6409398.72 1790116.116 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Monardella villosa Common Name: Willow Monardella  
 Site Name: Olney Lakes Management Unit #: TBD  
 Date: June 6, 2008 Management Regime: TBD  
 Surveyors and Affiliation/Agency: John Miller City of San Diego MSCP  
Jennifer Vaughan City of San Diego MSCP  
 Species Found? ☐ Yes ☒ No impacted by 2007 fires? erosion?  
 If not, why (if reason known or suspected)?  
 Total No. Individuals: 0 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 0 ☐ Exact (based on GPS mapping) ☐ Estimate  
 Units  
 Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: \_\_\_\_\_  
 Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
 Accuracy of Coordinates/GPS Error: +/- 41 ☒ meters ☐ feet  
 Observation Location: 0357735.58 1805911.58 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
 Vegetation Community: crested, disturbed PSC  
 Landowner/Manager: City of San Diego Water Department  
 Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space  
 Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
high frequency burn interval  
high cover non native grasses  
 Management Recommendation/s:  
NONE

**III. ASSOCIATED SPECIES**  
 List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Iva mexicana</u>	<u>10</u>			<u>Lenisera subspicata var. deoudata</u>	<u>1</u>		
<u>Lotium multiflorum</u>	<u>2</u>			<u>Baccharis sarothraoides</u>	<u>1</u>		
<u>Herschfeldia incana</u>	<u>1</u>			<u>Malvastrum laurina</u>	<u>1</u>		
<u>Bromus diandrus</u>	<u>2</u>			<u>* Rumex crispus</u>	<u>41</u>		
<u>Bromus madritensis ssp. c.</u>	<u>2</u>			<u>* Sonchus asper</u>	<u>41</u>		
<u>Cratichneum canescens ssp.</u>	<u>1</u>			<u>* Foeniculum vulgare</u>	<u>41</u>		
<u>Avena barbata microcephalum</u>	<u>7</u>			<u>Cyperus cragrostis</u>	<u>1</u>		
<u>Polygonum monspeliensis</u>	<u>5</u>			<u>Lotus purshianus var. p.</u>	<u>1</u>		

**IV. SITE PHOTOMONITORING**  
 Camera type: Canon PowerShot A75  
0357735.58 1805911.58 N/E/E/SE 1.1m 41° down 332-334 4/MSCP  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

**V. OTHER FIELD NOTES**  
 Other Field Notes/Comments: \_\_\_\_\_



Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Species	cover
* <i>Centaurea melitensis</i>	7
<i>Erigeron fasciculatus</i>	1
<i>Juncus effusus</i>	1
<i>Salix</i> sp.	21
<i>Rumex salicifolius</i> var. s.	21
* <i>Anagallis arvensis</i>	21
<i>Eremocarpus setigerus</i>	1
Clk grass	21
<i>Vulpia myuros</i>	1

## **Photo 90. *Monardella viminea* (Willowy Monardella) Otay Lakes**



Panorama from Northern edge of population, facing Northeast, East, Southeast.  
Panorama location is 6357735.58 1805911.58 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Monardella villosa</u>		Common Name: <u>Willow monardella</u>	
Site Name: <u>Sycamore Canyon</u>		Management Unit #: <u>TBA</u>	
Date: <u>9 June 2008</u>		Management Regime: <u>TBA</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller - City of San Diego - MSCP</u> <u>Jasmine Watts - Helix Environmental</u>			
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>9 North of creek, 20 South of creek</u>			
Total No. Individuals: <u>29</u> <input checked="" type="checkbox"/> Exact <input type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)			
Population/Subpopulation Area: <u>15970.42</u> <u>m<sup>2</sup></u> <input checked="" type="checkbox"/> Exact (based on GPS mapping) <input type="checkbox"/> Estimate			
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously			
If yes: Collector _____ Collection Number _____ Museum/Herbarium _____			
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
Accuracy of Coordinates/GPS Error: <u>+0.4</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
Observation Location: <u>10334297.04</u> <u>1916600.963</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
Vegetation Community: <u>Canyon bottom (creek bank) transition between CSS &amp; chaparral</u>			
Landowner/Manager: <u>City of San Diego</u>			
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input checked="" type="checkbox"/> Very Poor			
Surrounding land use: <u>open space</u>			
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>dominance of non-native grasses (Bromus diandrus) and deeply incised channel (erosion)</u>		Management Recommendation/s: <u>control weeds, consider erosion control</u>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit.			
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
Monardella villosa	3		
Brassica nigra *	2		
Bromus diandrus *	20		
Gallium angustifolium	4		
Eriogonum fasciculatum	4		
Salvia apiana	1		
Eschscholzia californica	4		
Oxalis albicans	4		
Bromus madritensis rubens *	7		
Delphinium fasciculata	4		
Erigeron foliosus	1		
Prunus ilicifolia	1		
Centaurea melitensis *	1		
Avena barbata *	2		
Stephanomeria exigua	4		
Bromus hordeaceus *	1		
<b>IV. SITE PHOTOMONITORING</b>			
Camera type: <u>Canon Powershot A75</u>			
<u>10334297.04</u>	<u>1916600.963</u>	<u>SE, S, SW</u>	<u>1.1M</u>
Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle
			<u>5° down</u>
			<u>300-371</u>
			Photo #
			<u>L: MSCP</u>
			File location/s
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments: _____			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions).

Continue on back if needed.



Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	50-100% Native Flora Composition Vegetation Structure intact or nearly so Cover/abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Species

cover

*Lolium multiflorum*

1

**Photo 91. *Monardella viminea* (Willow Monardella)  
Sycamore Canyon**



Panorama from Southern end of population, facing Southeast, South, Southwest.  
Panorama location is 6334297.64 1916600.96 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.



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*Navarretia fossalis*  
Spreading Navarretia



© City of San Diego, 2003



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Navarretia fuscalis</u>		Common Name: <u>Spreading Navarretia</u>	
Site Name: <u>Carroll Canyon</u>		Management Unit #: <u>n/a</u>	
Date: <u>4/22/08</u>		Management Regime: <u>n/a</u>	
Surveyors and Affiliation/Agency: <u>Roby Miller City of San Diego</u> <u>Jasmine Blatz Helix Environmental</u>			

Species Found? ☐ Yes ☒ No

Total No. Individuals: 8 ☐ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 1866.45 f12 ☒ Exact (based on GPS mapping) ☐ Estimate  
Units: see vp inventory, s/p (2003)

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet

Observation Location: 4282852.814 1907472.268 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: vernal pool (within chamise chaparral uplands)

Landowner/Manager: City of San Diego Park and Recreation Open Space

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: quarry, residential

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
trespass/dumping - documented historically; none observed at this survey

Management Recommendation/s:  
continue to restrict access + maintain fences/signs

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>H. Deinandra fusciculata</u>	<u>60</u>			<u>H. Crassula aquatica</u>	<u>2</u>		
<u>H. Eryngium aciculatum</u>	<u>25</u>			<u>H. Filago spp.</u>	<u>1</u>		
<u>H. Roldia orcutta</u>	<u>1</u>			<u>H. Vulpia spp. *</u>	<u>2</u>		
<u>H. Cuscuta spp.</u>	<u>25</u>			<u>H. Selaginella spp.</u>	<u>1</u>		
<u>H. Navarretia nemata</u>	<u>10</u>			<u>H. Gnaphalium bicolor</u>	<u>1</u>		
<u>H. Pegozyne abramsii</u>	<u>10</u>						
<u>H. Deschampsia danthonoides</u>	<u>2</u>						
<u>H. Psilocarphus brevissimus</u>	<u>7</u>						

### IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

6282852.814 1907472.268 S-SW-W-NW 0.8 m 15° down 157-60 L: MSCP Monitoring

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: Vernal pool ID - D5-8

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



## **Photo 92. *Navarretia fossalis* (Spreading Navarretia) Carroll Canyon**



Panorama from Northern edge of population, facing South, Southwest, West, Northwest.  
Panorama location is 6282852.81 1907472.26 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Navarretia Passalus* **Common Name:** *Spreading Navarretia*  
**Site Name:** *But Mesa / Spring Canyon #1* **Management Unit #:** *786*  
**Date:** *5/30/08* **Management Regime:** *TAD*  
**Surveyors and Affiliation/Agency:** *Betsy Miller - City of San Diego, MGCP*  
*Jennifer Vaughan - City of San Diego, MGCP*

**Species Found?** ☐ Yes ☒ No *lower rainfall year*  
**Total No. Individuals:** *0* ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
**Population/Subpopulation Area:** *20778.30* *ft<sup>2</sup>* ☒ Exact (based on GPS mapping) ☐ Estimate  
**Collection (if not collected previously)?** ☐ Yes ☒ No *see vernal pool shapefile (J 16-18)*  
**If yes:** ☐ Collected Previously  
**Collector:** \_\_\_\_\_ **Collection Number:** \_\_\_\_\_ **Museum/Herbarium:** \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
**Accuracy of Coordinates/GPS Error:** *+/- 4* ☒ meters ☐ feet  
**Observation Location:** *10330499.713* *1781402.990* ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
**Vegetation Community:** *Vernal pool, maritime succulent scrub- adjacent*  
**Landowner/Manager:** *City of San Diego, Park and Recreation open space*  
**Overall Site Quality\*\*** ☐ Very Good-Excellent ☐ Fair to Good ☒ Poor ☐ Very Poor  
**Surrounding land use:** *open space*

**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):** *ORVs; illegal trespass, non-native grass thicket*  
**Management Recommendation/s:** *site has been fenced + non-native grass removed as part of the 2004 transect grant vernal pool project*

**III. ASSOCIATED SPECIES**  
**List dominant, subdominant and invasive species in/near target species observation area/management unit.**  
**Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).**

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Simmondsia chinensis</i>	5			<i>Unknown plant</i>	21		
<i>Demandra fasciculata</i>	3			<i>Eriogonum aristolatum</i>	21		
<i>Eriogonum aristolatum</i>	3						
<i>Rhus integrifolia</i>	1						
<i>Eriogonum aristolatum</i>	4						
<i>Bromus spp.</i>	21						
<i>Cylindropuntia phyllifera</i>	4						
<i>Nasella spp.</i>	21						

**IV. SITE PHOTOMONITORING**  
**Camera type:** *CANON powershot A75*  
**Location [State Plane (ft)]:** *10330499.713* *1781402.990* **Direction (facing):** *S-W-N* **Height:** *1.1M* **Camera Angle:** *~10° DOWN* **Photo #:** *311-315* **File location/s:** *L MGCP*

**V. OTHER FIELD NOTES**  
**Other Field Notes/Comments:** \_\_\_\_\_

\*\* Use Turland & Keighly Vegetation Condition Scale



**Photo 93. *Navarretia fossalis* (Spreading Navarretia)  
Goat Mesa/Spring Canyon**



Panorama from Southeastern edge of population, facing South, West, North.  
Panorama location is 6330499.71 1781402.49 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Navaretia fossalis</u>		Common Name: <u>Spreading Navaretia</u>	
Site Name: <u>Nobel Drive</u>		Management Unit #: <u>N/A</u>	
Date: <u>4/22/08</u>		Management Regime: <u>N/A</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller - City of San Diego - MSCP</u> <u>Jasmine Watts - Helix Environmental</u>			
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Total No. Individuals: <u>100</u> <input type="checkbox"/> Exact <input checked="" type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)		If not, why (if reason known or suspected)?	
Population/Subpopulation Area: <u>1199867.32</u> <u>ft<sup>2</sup></u> <input checked="" type="checkbox"/> Exact (based on GPS mapping) <input type="checkbox"/> Estimate		<u>see vernal pool shapefile</u>	
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously		Units	
If yes: _____		Collector _____ Collection Number _____ Museum/Herbarium _____	
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
Accuracy of Coordinates/GPS Error: +/- <u>4</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
Observation Location: <u>6271105.47</u> <u>1896367.536</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
Vegetation Community: <u>vernal pool, non-native grassland</u>			
Landowner/Manager: <u>City of San Diego Park and Recreation</u>			
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input type="checkbox"/> Fair to Good <input checked="" type="checkbox"/> Poor <input type="checkbox"/> Very Poor			
Surrounding land use: <u>open space, multi-family residential, transportation</u>			
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>surrounded by on-going invasive plant species removal &amp; grass thatching</u>		Management Recommendation/s: <u>continue invasive plant removal</u> <u>keep vernal pool fenced</u>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit.			
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover'*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
<u>Bloomeria clevelandii</u>	<u>1</u>		
<u>Delandiera fasciculata</u>	<u>10</u>		
<u>Pogogyne ambramii</u>	<u>8</u>		
<u>Eryngium aristulatum</u>	<u>4</u>		
<u>Navaretia hamata</u>	<u>3</u>		
<u>Crassula conchata</u>	<u>1</u>		
<u>Centaurea venustum</u>	<u>1</u>		
<u>Avena</u> spp. *	<u>1</u>		
Species	Cover	Coll?	Coll. #
<u>Adenostema fasciculata</u>	<u>5</u>		
<u>Viola myum</u>	<u>2</u>		
<u>Bromus madritensis</u> ssp. <u>rubens</u> *	<u>1</u>		
<u>Crassula aquatica</u>	<u>1</u>		
<u>Eriogonum fasciculatum</u>	<u>2</u>		
<u>Psoralea brevissima</u>	<u>1</u>		
<u>Mesembryanthemum dantonodes</u>	<u>1</u>		
<u>Callitriche marginata</u>	<u>1</u>		
<b>IV. SITE PHOTOMONITORING</b>			
Camera type: <u>Canon powershot A75</u>			
<u>6271105.47</u> <u>1896367.536</u> <u>SW, S, SE</u> <u>0.8m</u> <u>downward 70°</u> <u>716-710</u> <u>L: MSCP monitoring</u>	Location [State Plane (ft)]	Direction (facing)	Height
			Camera Angle
			Photo #
			File location/s
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments: _____			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



## Photo 94. *Navarretia fossalis* (Spreading Navarretia) Nobel Drive



Panorama from Southern edge of population, facing Southwest, South, Southeast.  
Panorama location is 6271105.47 1896367.536 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

**Scientific Name:** *Navarretia fassalis* **Common Name:** *Spreading navarretia*  
**Site Name:** *Olaj Lakes* **Management Unit #:** *TBB*  
**Date:** *4/24/08* **Management Regime:** *TBA*  
**Surveyors and Affiliation/Agency:** *Betsy Miller City of San Diego MSCP*  
*Keli Fisk City of San Diego Metro*

**Species Found?** ☒ Yes ☐ No  
**Total No. Individuals:** *32* ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)  
**Population/Subpopulation Area:** *30* *A<sup>2</sup>* ☐ Exact (based on GPS mapping) ☒ Estimate  
**Collection (if not collected previously)?** ☐ Yes ☒ No ☐ Collected Previously  
**If yes:** Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**  
**Accuracy of Coordinates/GPS Error:** *+/- <1* ☒ meters ☐ feet  
**Observation Location:** *0355504.70 1807021.28* ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**  
**Vegetation Community:** *vernal pools - upland habitat mine mounds - CSS/MVC*  
**Landowner/Manager:** *City of San Diego Klats Dept*  
**Overall Site Quality\*\*** ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor  
**Surrounding land use:** *reservoir, open space* *high cover invasives / no disturbance*

**Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):**  
*high cover non-native species*  
*altered (increased) fire regimes*  
*Border Patrol ORV use - observed*

**Management Recommendation/s:**  
*continue non-native removal project*  
*continue restricted access*  
*evaluate post removal project data*

**III. ASSOCIATED SPECIES**  
**List dominant, subdominant and invasive species in/near target species observation area/management unit.**  
**Species=**List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<i>Lotus scoparius</i>	2			<i>Desmodium fasciculata</i>	10		
<i>Eriogonum fasciculatum</i>	2			<i>Nauclea lepida</i>	1		
<i>Artemisia californica</i>	1			<i>Eriogonum aristatum</i>	5		
<i>Malvastrum laurina</i>	1			<i>Chlorogalum parvifolium</i>	1		
<i>Erodium cicutarium</i>	25			<i>Lepidium sp.</i>	1		
<i>Brodiaea jolonensis</i>	1			<i>Cressula aquatica</i>	1		
<i>Hypochaeris glabra</i>	5			<i>Navarretia fassalis</i>	1		
<i>Bromus hordeaceus</i>	20			<i>Castilleja exulta</i>	1		

**IV. SITE PHOTOMONITORING**  
**Camera type:** *Canon Powershot A75*  
**Location [State Plane (ft)]** *0355504.70 1807021.28* **Direction (facing)** *NW - W* **Height** *1.0 m* **Camera Angle** *10° down* **Photo #** *105-107* **File location/s** *L MSCP/monitoring*

**V. OTHER FIELD NOTES**  
**Other Field Notes/Comments:** *species location points GPSed - site currently 1 year into non-native/invasive removal / de-thatch effort - very low cover on mounds due to this effort; BuOw's artificial burrows; Golden Eagle*

\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)



Modified Trudgen & Keighery Vegetation Condition Scale

Very Good-Excellent	80-100% Native Flora Composition Vegetation Structure intact or nearly so Cover /abundance of weeds < 5% No or minimal signs of disturbance
Fair to Good	50-80% Native Flora Composition Vegetation structure modified or somewhat modified Cover/abundance of weeds 5-20% any number of individuals Possible minor signs of disturbance
Poor	20-50% Native Flora Composition Vegetation structure modified Cover/abundance of weeds 20-60% any number of individuals Disturbance incidence high
Very Poor	0-20% Native Flora Composition Vegetation Structure disappeared Cover/abundance of weeds 60-80% any number of individuals Disturbance incidence very high

Species	Cover
<i>Phalaris</i> spp.	41
<i>Psilocarphus brevissimus</i>	25
<i>Vulpia</i> spp.	1
<i>Bromus</i> spp.	3
<i>Atriplex semibacata</i>	41
<i>Deschampsia danthonoides</i>	1
<i>Eleocharis macrostachya</i>	1
<i>Plagiobotrys acanthocarpus</i>	1
<i>Bromus madritensis</i>	1
<i>Castidium ventricosum</i>	1

## **Photo 95. *Navarretia fossalis* (Spreading Navarretia) Otay Lakes**



Panorama from Northwestern edge of population, facing Northwest, West.  
Panorama location is 6355504.70 1807021.28 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

<b>Scientific Name:</b> <u>NAVARRERIA FOSSILIS</u>		<b>Common Name:</b> <u>SPREADING NAVARRERIA</u>	
<b>Site Name:</b> <u>ROBINHOOD RIDGE</u>		<b>Management Unit #:</b> <u>TBA</u>	
<b>Date:</b> <u>01/13/08</u>		<b>Management Regime:</b> <u>TBA</u>	
<b>Surveyors and Affiliation/Agency:</b> <u>Jennifer Vaughan - city of san diego - MSCP</u> <u>Betsy Miller - city of san diego - MSCP</u>			

Species Found? ☐ Yes ☒ No

Total No. Individuals: 0 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 770.13 ft<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☐ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

vernal pool shapefile

---

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +0 4 ☒ meters ☐ feet

Observation Location: 10329438.23 1790979.92 ☒ State Plane (feet) ☐ UTM

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**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: COASTAL/SAGE SCRUB, VERNAL POOL RESTORED

Landowner/Manager: CITY OF SAN DIEGO/HELIX ENVIRONMENTAL

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space, industrial, residential, transportation

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  <u>NONE</u>	Management Recommendation/s:  <u>maintain existing fence/ signs as necessary</u>
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---

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Eryngium aristulatum</u>	<u>7</u>			<u>Avena sp</u>	<u>21</u>		
<u>Popogone nudisculata</u>	<u>1</u>			<u>Mesembryanthemum nodiflorum</u>	<u>21</u>		
<u>Deinandra fasciculata</u>	<u>20</u>			<u>Psilocarphus brevissimus</u>	<u>3</u>		
<u>Artemisia californica</u>	<u>5</u>			<u>Dechampsia dantharoides</u>	<u>21</u>		
<u>Viguiera laciniata</u>	<u>1</u>			<u>Unknown grass</u>	<u>21</u>		
<u>Eriogonum fasciculatum</u>	<u>1</u>			<u>Erodium sp.</u>	<u>1</u>		
<u>Ferocactus viridescens</u>	<u>1</u>						
<u>Bromus madritensis ssp r</u>	<u>7</u>						

---

**IV. SITE PHOTOMONITORING**

Camera type: CANON POWERSHOT A79

<u>10329438.23</u>	<u>1790979.92</u>	<u>S-SW-W</u>	<u>31"</u>	<u>LEVEL</u>	<u>391-394 L MSCP</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #
					File location/s

---

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: \_\_\_\_\_

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



## **Photo 96. *Navarretia fossalis* (Spreading Navarretia) Robinhood Ridge**



Panorama from Northern edge of population, facing South, Southwest, West.  
Panorama location is 6329438.23 1790979.82 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1

*Pinus torreyana* spp. *torreyana*  
Torrey Pine



© Roger Isaacson, 2008



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>PINUS torreyana ssp. torreyana</u>		Common Name: <u>TORREY PINE</u>					
Site Name: <u>REST CANYON obs. 1</u>		Management Unit #: <u>TBA</u>					
Date: <u>10/12/08</u>		Management Regime: <u>TBA</u>					
Surveyors and Affiliation/Agency: <u>Jasmine Walsh - Helix Environmental</u> <u>Jennifer Vaughan - City of San Diego - MSCP</u>							
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Total No. Individuals: <u>3</u>		If not, why (if reason known or suspected)?					
Population/Subpopulation Area: <u>0.09</u> <u>acres</u>		<input checked="" type="checkbox"/> Exact <input type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)					
		Units <input type="checkbox"/> Exact (based on GPS mapping) <input checked="" type="checkbox"/> Estimate					
Collection (if not collected previously)?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously					
If yes: _____							
Collector	Collection Number	Museum/Herbarium					
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>							
Accuracy of Coordinates/GPS Error: <u>+0</u> <u>41</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet							
Observation Location: <u>0253314 41</u> <u>1929325 93</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM							
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>							
Vegetation Community: <u>coastal sage scrub</u>							
Landowner/Manager: <u>city of san diego, city of del mar</u>							
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input checked="" type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input type="checkbox"/> Very Poor							
Surrounding land use: <u>open space</u>							
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>MINOR INVASIVE SPECIES</u>		Management Recommendation/s: <u>NONE</u>					
<b>III. ASSOCIATED SPECIES</b>							
List dominant, subdominant and invasive species in/near target species observation area/management unit.							
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover'= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).							
Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>PINUS torreyana</u>	<u>10</u>			<u>KNUS integrifolia</u>	<u>1</u>		
<u>ERIOGONUM fasciculatum</u>	<u>5</u>						
<u>ISOCOMA menziesii</u>	<u>2</u>						
<u>BRONIUS madritensis *</u>	<u>1</u>						
<u>NAVARENEA hamata</u>	<u>1</u>						
<u>ARTEMISIA californica</u>	<u>1</u>						
<u>ADENOSTEMA fasciculata</u>	<u>1</u>						
<b>IV. SITE PHOTOMONITORING</b>							
Camera type: <u>CANON A75</u>							
<u>0253314.41</u>	<u>1929325.93</u>	<u>NE, E, SE</u>	<u>5.5ft</u>				
Location [State Plane (ft)]		Direction (facing)	Height				
			<u>5° up</u>				
			Camera Angle				
			<u>376-378L MSCP</u>				
			Photo #				
			File location/s				
<b>V. OTHER FIELD NOTES</b>							
Other Field Notes/Comments: _____							

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 97. *Pinus torreyana* ssp. *torreyana* (Torrey Pine)  
Crest Canyon Observation # 1**



Panorama from Northern edge of population, facing Northwest, North, Northeast.  
Panorama location is 6253722.81 1929622.66 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>PINUS torreyana ssp. torreyana</u>		Common Name: <u>Torrey Pine</u>	
Site Name: <u>Crest Canyon obs. 2</u>		Management Unit #: <u>TBA</u>	
Date: <u>10/12/08</u>		Management Regime: <u>TBA</u>	
Surveyors and Affiliation/Agency: <u>Jasmine Wally - Helix Environmental</u> <u>Jennifer Vaughan - City of San Diego - MSCP</u>			
Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
If not, why (if reason known or suspected)?			
Total No. Individuals: <u>12</u>		<input checked="" type="checkbox"/> Exact <input type="checkbox"/> Estimate (use orders of 10, 100 and 1000 for estimates)	
Population/Subpopulation Area: <u>.139</u>		Units: <u>acres</u> <input type="checkbox"/> Exact (based on GPS mapping) <input checked="" type="checkbox"/> Estimate	
Collection (if not collected previously)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Collected Previously			
Collector: _____		Collection Number: _____	
Museum/Herbarium: _____			
<b>I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION</b>			
Accuracy of Coordinates/GPS Error: <u>+0.4</u> <input checked="" type="checkbox"/> meters <input type="checkbox"/> feet			
Observation Location: <u>W253722.81</u> <u>1979622.66</u> <input checked="" type="checkbox"/> State Plane (feet) <input type="checkbox"/> UTM			
<b>II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT</b>			
Vegetation Community: <u>coastal sage scrub surrounded on sand bluffs</u>			
Landowner/Manager: <u>City of San Diego</u>			
Overall Site Quality** <input type="checkbox"/> Very Good-Excellent <input checked="" type="checkbox"/> Fair to Good <input type="checkbox"/> Poor <input type="checkbox"/> Very Poor			
Surrounding land use: <u>open space</u>			
Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>Minor invasive species</u>		Management Recommendation/s: <u>NDNH</u>	
<b>III. ASSOCIATED SPECIES</b>			
List dominant, subdominant and invasive species in/near target species observation area/management unit.			
Species*=List all species (sci. name). Use * to indicate non-native species; 'Cover'*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).			
Species	Cover	Coll?	Coll. #
PINUS torreyana	15		
Cordylanthus rigida	1		
Arctostaphylos glandulosa	2		
Ceanothus verrucosus	1		
Eriogonum fasciculatum	1		
Navarretia hamata	1		
Rhamnus calycosa	1		
Salvia mellifera	1		
Adenostema fasciculata	1		
Rhus integrifolia	1		
Bromus madriensis *	1		
<b>IV. SITE PHOTOMONITORING</b>			
Camera type: <u>Canon Powershot A75</u>			
Location [State Plane (ft)]: <u>W253722.81</u>	Direction (facing): <u>1979622.66 NW, N, NE</u>	Height: <u>5ft</u>	Camera Angle: <u>5° down</u>
			Photo #: <u>379-381</u>
			File location/s: <u>L.MSCP</u>
<b>V. OTHER FIELD NOTES</b>			
Other Field Notes/Comments: _____			

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 98. *Pinus torreyana* ssp. *torreyana* (Torrey Pine)  
Crest Canyon Observation # 2**



Panorama from Eastern edge of population, facing Northwest, North, Northeast.  
Panorama location is 6253722.81 1929622.66 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1

*Pogogyne abramsii*  
San Diego Mesa Mint



© City of San Diego, 2005



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Pogogyne abramsii</u>		Common Name: <u>San Diego Mesa mint</u>	
Site Name: <u>Camel Canyon</u>		Management Unit #: <u>n/a</u>	
Date: <u>4/22/08</u>		Management Regime: <u>n/a</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller City of San Diego</u> <u>Jasmine Watts Helix Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 500 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 1805.85 f12 ☒ Exact (based on GPS mapping) ☐ Estimate  
 Units: See vernal pool inventory spreadsheet (2003)

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- <1 ☒ meters ☐ feet  
 Observation Location: 6282860.426 1907341.599 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: vernal pools (chamise chaparral upland)  
 Landowner/Manager: City of San Diego Park + Recreation Open Space  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space, residential, grazing

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): <u>trespass + dumping reported historically; none observed this survey</u>	Management Recommendation/s: <u>continue to control access + maintain fencing</u>
---	--

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <u>Deinandra fruticulata</u>	10			H <u>Filago spp.</u>	1		
H <u>Biscayulus barissimus</u>	7			H <u>Trodiaea cruthia</u>	1		
H <u>Naradictia hemata</u>	5			H <u>Thunus subsonus</u>	3		
H <u>Eryngium aristulatum</u>	30			H <u>Crassula aquatica</u>	2		
H <u>Vulpia spp. +</u>	1			H <u>Deschampsia candelarioides</u>	1		
H <u>Pogogyne abramsii</u>	25						
H <u>Lythrum hyssopifolium</u>	2						
H <u>Downingia cuspidata</u>	2						

### IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A7S  
6282860.426 1907341.599 N-NE-E 0.9 15° down 61-63 L:MSCP monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 \_\_\_\_\_  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: CACN observed @ 3:30 pm 4/22/08 @ this photo point  
much lower cover Deinandra than other CC pool vernal pool ID D5-0

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 99. *Pogogyne abramsii* (San Diego Mesa Mint)  
Carroll Canyon**



Panorama from Northern edge of population, facing North, Northeast, East.  
Panorama location is 6282860.43 1907341.59 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: Pogogyne abramsii Common Name: SAN DIEGO MESA MINT  
 Site Name: Del Mar Mesa Obs 1 Management Unit #: TBA  
 Date: 29 April 2008 Management Regime: TBA  
 Surveyors and Affiliation/Agency: Keli Rolo - City of San Diego  
JEROME WATTS - HELIX Environmental

Species Found? ☒ Yes ☐ No

Total No. Individuals: 50 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)  
 Population/Subpopulation Area: 348.61 f+2 ☐ Exact (based on GPS mapping) ☐ Estimate  
 Units: see vernal pool shapefile (2003)

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously  
 If yes: Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

## I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 21 ☒ meters ☐ feet  
 Observation Location: Q280351.911 1924986.804 ☒ State Plane (feet) ☐ UTM

## II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: Normal Pool / chamisa chaparral  
 Landowner/Manager: City of San Diego Parks & Rec Open Space (MHPA)  
 Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor  
 Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):

NON-NATIVE SPECIES

Management Recommendation/s:

area is fenced

## III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Blotomia clevelandii</u>	<u>1</u>			<u>Thiadeo ssp</u>	<u>1</u>		
<u>Delandrea fasciculatum</u>	<u>1</u>			<u>Bryonia orcutii</u>	<u>1</u>		
<u>Navaretia hamata</u>	<u>2</u>			<u>Cercaria mellitensis *</u>	<u>1</u>		
<u>Cratichneumon</u>	<u>2</u>			<u>Cercaria dumsanti</u>	<u>1</u>		
<u>Desmodium ferrugineum</u>	<u>1</u>			<u>Vulpia myuros</u>	<u>2</u>		
<u>Centaurea venusta</u>	<u>1</u>			<u>Xanthoxylum</u>	<u>1</u>		
<u>Pogogyne abramsii</u>	<u>1</u>			<u>Vicia sativa</u>	<u>1</u>		
<u>Bryonia madagascariensis</u>	<u>3</u>			<u>Sedum sp</u>	<u>1</u>		

## IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S  
6280351.911 1924986.804 NW, W, SW, SE 1.1m downward 15° 122-126 L: MSCP monitoring  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s  
 Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

## V. OTHER FIELD NOTES

Other Field Notes/Comments: Same photo point for Blotomia clevelandii  
vernal pool ID H1-15 Obs 1

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 100. *Pogogyne abramsii* (San Diego Mesa Mint)  
Del Mar Mesa Observation # 1**



Panorama from Southeastern edge of population, facing Northwest, West, Southwest, Southeast.

Panorama location is 6280351.91 1924986.80 NAD83 State Plane California Zone 6 (feet)

Photos merged using Canon PhotoStitch, v. 3.1



# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Pogogyne clevelandii</u>		Common Name: <u>SAN DIEGO MESA MILK</u>	
Site Name: <u>Red Mesa Obs 2</u>		Management Unit #: <u>N/A</u>	
Date: <u>29 April 2008</u>		Management Regime: <u>N/A</u>	
Surveyors and Affiliation/Agency: <u>Kelley Gallo - City of San Diego</u> <u>Jasmine White - KFLX Environmental</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 1000+ ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 3277.99 ft<sup>2</sup> ☒ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: \_\_\_\_\_

Collector: \_\_\_\_\_ Collection Number: \_\_\_\_\_ Museum/Herbarium: \_\_\_\_\_

**I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION**

Accuracy of Coordinates/GPS Error: +/- 4 ☒ meters ☐ feet

Observation Location: U280711.304 1924751.60 ☒ State Plane (feet) ☐ UTM

**II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT**

Vegetation Community: UPPER POOL, SOUTHERN MIXED CHAPARRAL

Landowner/Manager: CITY OF SAN DIEGO PARKS AND RECREATION OPEN SPACE (MESA)

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): NON-NATIVE SPECIES

Management Recommendation/s: area is fenced

**III. ASSOCIATED SPECIES**

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover'\*= % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Bloomeria clevelandii</u>	<u>1</u>			<u>Adenostema fasciculata</u>	<u>5</u>		
<u>Desmanthus fasciculata</u>	<u>10</u>			<u>Volpa myrta</u>	<u>2</u>		
<u>Pogogyne clevelandii</u>	<u>8</u>			<u>Bromus madriensis ssp. rubens</u>	<u>1</u>		
<u>Eriogonum aristatum</u>	<u>4</u>			<u>Crassula aquatica</u>	<u>1</u>		
<u>Navaretia hamata</u>	<u>5</u>			<u>Eriogonum fasciculatum</u>	<u>2</u>		
<u>Crassula connata</u>	<u>1</u>			<u>Pollardus brevissimus</u>	<u>1</u>		
<u>Centaurea venetum</u>	<u>1</u>			<u>Deschampsia cespitosa</u>	<u>1</u>		
<u>Avena ssp.</u>	<u>1</u>			<u>Callitriche maritima</u>	<u>1</u>		

**IV. SITE PHOTOMONITORING**

Camera type: Canon Powershot A9S

U280711.304 1924751.60 SW, W, NW, N, NE 1.1m downward 10° 127-132 L MSCP monitoring

Location [State Plane (ft)] Direction (facing) Height Camera Angle Photo # File location/s

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**V. OTHER FIELD NOTES**

Other Field Notes/Comments: Same photo point for Bloomeria clevelandii. Obs 2  
vernal pool ID 1-15  
Eriogonum aristatum Obs 2

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 101. *Pogogyne abramsii* (San Diego Mesa Mint)  
Del Mar Mesa Observation # 2**



Panorama from Northern edge of population, facing Southwest, West, Northwest, North, Northeast.  
Panorama location is 6280711.304 1924751.60 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1

# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Pogogyne abramsii</u>		Common Name: <u>San Diego mesa mint</u>	
Site Name: <u>General Dynamics W (P42)</u>		Management Unit #: <u>TBD</u>	
Date: <u>5/10/08</u>		Management Regime: <u>TBD</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller, City of San Diego, MSCP</u> <u>Randy Rodriguez CDFG</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 250 ☐ Exact ☒ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 452.54 P42 ☒ Exact (based on GPS mapping) ☐ Estimate  
see vernal pool shapefile

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +/- 41 ☒ meters ☐ feet

Observation Location: 6291521.99 1880728.51 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: DCSS, Vernal pool

Landowner/Manager: Private LNR Kearny Mesa Inc

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: transportation, industrial, business park

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
minimal, volunteer trail on N side of property, small patch of mustard sw of photopoint

Management Recommendation/s:  
maintain access restrictions/signage

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.  
 Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
H <u>Demaria fasciculata</u>	<u>60</u>			H <u>Psilocarphus brevissimus</u>	<u>5</u>		
S <u>Eriogonum fasciculatum</u>	<u>5</u>			H <u>Polygala monspeliensis</u>	<u>10</u>		
S <u>Isocoma menziesii</u>	<u>3</u>			H <u>Inf Grass small</u>	<u>2</u>		
H <u>Pogogyne abramsii</u>	<u>25</u>			H <u>Crassula aquatica</u>	<u>2</u>		
H <u>Brodiaea decurva</u>	<u>3</u>						
H <u>Erodium spp. *</u>	<u>7</u>						
H <u>Hypochaeris glabra</u>	<u>1</u>						
H <u>Deschampsia dantharoides</u>	<u>1</u>						

### IV. SITE PHOTOMONITORING

Camera type: Canon powershot A75

6291521.99 1880728.51 SW-W-NW-N 1.1 ~10° down 159-106 L MSCP/monitoring

Location [State Plane (ft)]	Direction (facing)	Height	Camera Angle	Photo #	File location/s
_____	_____	_____	_____	_____	_____

### V. OTHER FIELD NOTES

Other Field Notes/Comments:  
same photo point as Brodiaea decurva  
vernal pool ID N8

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



## **Photo 102. *Pogogyne abramsii* (San Diego Mesa Mint) General Dynamics Western Observation**



Panorama from Southwestern edge of population, facing Southwest, West, Northwest, North.  
Panorama location is 6291521.99 1880728.51 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1

*Pogogyne nudiuscula*  
Otay Mesa Mint



© City of San Diego, 2003



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Pogogyne nudiuscula</u>		Common Name: <u>OTAY MESA MINT</u>	
Site Name: <u>ROBINHOOD RIDGE</u>		Management Unit #: <u>TBA</u>	
Date: <u>6/13/08</u>		Management Regime: <u>TBA</u>	
Surveyors and Affiliation/Agency: <u>Jennifer Vaughan City of San Diego MSCP</u> <u>Betsy Miller City of San Diego MSCP</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 10 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 17013 f12 ☒ Exact (based on GPS mapping) ☐ Estimate  
Units see vernal pools .shp

Collection (if not collected previously)? ☐ Yes ☒ No ☐ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: 40 <1 ☒ meters ☐ feet

Observation Location: 032938.23 1790979.92 ☒ State Plane (feet) ☐ UTM

### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: coastal sage scrub vernal pool RESTORED

Landowner/Manager: City of San Diego / Helix Environmental

Overall Site Quality\*\* ☒ Very Good-Excellent ☐ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: open space, industrial, residential, transportation

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible):  
NONE

Management Recommendation/s:  
maintain existing fences/ signs as necessary

### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Eryngium aciculatum</u>	<u>7</u>			<u>Avena sp.</u>	<u>&lt;1</u>		
<u>Pogogyne nudiuscula</u>	<u>1</u>			<u>Mesembryanthemum poliflorum</u>	<u>&lt;1</u>		
<u>Desmodium fasciculatum</u>	<u>20</u>			<u>Psilochrysis brevissimus</u>	<u>3</u>		
<u>Ipomoea californica</u>	<u>5</u>			<u>Deschampsia ciliaris</u>	<u>&lt;1</u>		
<u>Viguiera laciniata</u>	<u>1</u>			<u>Ulex grass</u>	<u>&lt;1</u>		
<u>Eriogonum fasciculatum</u>	<u>1</u>			<u>Erodium sp.</u>	<u>1</u>		
<u>Ferocactus viridescens</u>	<u>1</u>						
<u>Bromus modestus</u> ssp. <u>c. 7</u>							

### IV. SITE PHOTOMONITORING

Camera type: CANON POWERSHOT A7S

<u>032938.23</u>	<u>1790979.92</u>	<u>S-SW-W</u>	<u>31"</u>	<u>level</u>	<u>571-574</u>	<u>L MSCP</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

### V. OTHER FIELD NOTES

Other Field Notes/Comments: \_\_\_\_\_

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



## **Photo 103. *Pogogyne nudiuscula* (Otay Mesa Mint) Robinhood Ridge**



Panorama from Southwestern edge of population, facing South, Southwest, West.  
Panorama location is 632938.23 1790979.82 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1

*Rosa minutifolia*  
Baja Rose



© Stan Shebs, 2007



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# Multiple Species Conservation Program (MSCP) Rare Plant Field Survey Form

Scientific Name: <u>Rosa minutifolia</u>		Common Name: <u>Baja Rose</u>	
Site Name: <u>Denney Ranch</u>		Management Unit #: <u>TBA</u>	
Date: <u>01/13/08</u>		Management Regime: <u>TBA</u>	
Surveyors and Affiliation/Agency: <u>Betsy Miller - city of san diego - MSCP</u> <u>Jennifer Vaughan - city of san diego - MSCP</u>			

Species Found? ☒ Yes ☐ No

Total No. Individuals: 1 ☒ Exact ☐ Estimate (use orders of 10, 100 and 1000 for estimates)

Population/Subpopulation Area: 3023.04 M<sup>2</sup> ☐ Exact (based on GPS mapping) ☐ Estimate

Collection (if not collected previously)? ☐ Yes ☐ No ☒ Collected Previously

If yes: Collector \_\_\_\_\_ Collection Number \_\_\_\_\_ Museum/Herbarium \_\_\_\_\_

see Delinandra conjugens 2001 data

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### I. OBSERVATION AREA/MANAGEMENT UNIT LOCATION

Accuracy of Coordinates/GPS Error: +0 4 ☒ meters ☐ feet

Observation Location: 0321404.87 1791030.20 ☒ State Plane (feet) ☐ UTM

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### II. GENERAL HABITAT DESCRIPTION AND THREATS ASSESSMENT

Vegetation Community: coastal sage scrub

Landowner/Manager: city of san diego

Overall Site Quality\*\* ☐ Very Good-Excellent ☒ Fair to Good ☐ Poor ☐ Very Poor

Surrounding land use: residential / development, open space

Disturbances and/or threats (be specific, include extent of disturbance or percent cover of disturbance if possible): INVASIVE SPECIES (Bromus sp.)

Management Recommendation/s: NONE

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### III. ASSOCIATED SPECIES

List dominant, subdominant and invasive species in/near target species observation area/management unit.

Species\*=List all species (sci. name). Use \* to indicate non-native species; 'Cover' = % cover of species; Note if collected by checking 'Coll.' column; if submitted to herbarium, note collection number (submit to SDNHM unless otherwise noted).

Species	Cover	Coll?	Coll. #	Species	Cover	Coll?	Coll. #
<u>Artemisia californica</u>	<u>20</u>			<u>Rosa minutifolia</u>	<u>&lt;1</u>		
<u>Delinandra fasciculata</u>	<u>10</u>			<u>Simmondsia chinensis</u>	<u>1</u>		
<u>Eriogonum fasciculatum</u>	<u>&lt;1</u>			<u>Baccharis sarothroides</u>	<u>&lt;1</u>		
<u>Bromus madritensis ssp rubens</u>	<u>35</u>						
<u>Rhus integrifolia</u>	<u>1</u>						
<u>Viguiera dancinata</u>	<u>1</u>						
<u>Delinandra conjugens</u>	<u>&lt;1</u>						
<u>Encelia californica</u>	<u>1</u>						

---

### IV. SITE PHOTOMONITORING

Camera type: Canon Powershot A75

<u>0321404.87</u>	<u>1791030.20</u>	<u>S-SE-E</u>	<u>1.1M</u>	<u>~5° up</u>	<u>380-387</u>	<u>L-MSCP</u>
Location [State Plane (ft)]		Direction (facing)	Height	Camera Angle	Photo #	File location/s

---

### V. OTHER FIELD NOTES

Other Field Notes/Comments: 3 ind. CAGN observed at photopoint

\*\* Use Trudgen & Keighery Vegetation Condition Scale Descriptions (see back of form or instructions)

Continue on back if needed.



**Photo 104. *Rosa minutifolia* (Baja Rose)  
Dennery Ranch**



Panorama from Southern edge of population, facing South, Southeast, East.  
Panorama location is 6321404.87 1791630.28 NAD83 State Plane California Zone 6 (feet)  
Photos merged using Canon PhotoStitch, v. 3.1.

## **Acknowledgments**

The following staff assisted in the preparation of this report:

Betsy Miller, Biologist III (OCA)

Ria Boner, MSCP Intern

Jennifer Vaughan, MSCP Intern



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**APPENDIX A**

**CITY OF SAN DIEGO RARE PLANT MONITORING:  
2008 MONITORING DATES AND STAFF**



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**City of San Diego MSCP Plant Monitoring:  
Priorities, Sites and Survey Dates**

Species	Risk Group (SDSU '06)	Risk Group (Ogden '96)	Site	Survey Date	Staff	Methodology
<i>Acanthomintha ilicifolia</i> (San Diego Thorn-mint)	First	Second	Blk Mtn Park- West (BMR)	22-May	JV, JW	Photo, Habitat Assessment
			Mission Trails Regional Park	7-May	BYM, RB	Photo, Habitat Assessment
			Otay Lakes	16-May	JV, JW	Photo, Habitat Assessment
			Penasquitos Canyon	16-May	JV, JW	Photo, Habitat Assessment
			Sabre Springs/ Poway	8-May	BYM, NB	Photo, Habitat Assessment
<i>Ambrosia pumila</i> (San Diego Ambrosia)	First	Second	Mission Trails Regional Park	7-May	BYM, RB	Photo, Habitat Assessment
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> (Del Mar Manzanita)	First	Third	Carmel Mountain	14-Apr	KF, JW	Photo, Habitat Assessment
			Crest Canyon	8-Apr, 14-Apr	BYM, KF, JW	Photo, Habitat Assessment
			Del Mar Mesa	14-Apr	KF, JW	Photo, Habitat Assessment
			Penasquitos Canyon	6-Jun	JW, JV	Photo, Habitat Assessment
			San Dieguito River Bluffs	14-Apr	KF, JW	Photo, Habitat Assessment
<i>Agave shawii</i> (Shaw's Agave)	Second	None	Sunset Cliffs	6-Jun	JW, JV	Survey location unknown, population not located
<i>Bloomeria [Muilla] clevelandii</i> (San Diego Goldenstar)	Second	Second	Del Mar Mesa	29-Apr	KB, JW	Photo, Habitat Assessment
			E. Elliot/Sycamore Canyon	21-Apr, 23-Apr, 25-Apr, 28-Apr	BYM, KB	GPS, Photo, Habitat Assessment
			Marron Valley	18-Apr	KB, JV	GPS, Photo, Habitat Assessment
			Mission Trails Regional Park	16-Apr	BYM, JV	Photo, Habitat Assessment
			Otay Lakes	15-Apr, 24-Apr	BYM, JW	GPS, Photo, Habitat Assessment
			USIU	22-Apr	BYM, JW	Survey location unknown, population not located



**City of San Diego MSCP Plant Monitoring:  
Priorities, Sites and Survey Dates**

Species	Risk Group (SDSU '06)	Risk Group (Ogden '96)	Site	Survey Date	Staff	Methodology
<i>Brodiaea orcuttii</i> (Orcutt's Brodiaea)	Third	Second	Carmel Mountain	29-Apr	KB, JW	Photo, Habitat Assessment
			Del Mar Mesa	29-Apr	KB, JW	Photo, Habitat Assessment
			Carroll Canyon	22-Apr	BYM, JW	Photo, Habitat Assessment
			General Dynamics	5-May	BYM, RR	Photo, Habitat Assessment
			Nobel Drive	22-Apr	BYM, JW	Photo, Habitat Assessment
			Otay Lakes	15-Apr	BYM, JW	Survey location unknown, population not located
			USIU/Alliant/ Scripps Ranch	22-Apr	BYM, JW	Photo, Habitat Assessment
<i>Ceanothus verrucosus</i> (Wart-Stem Lilac)	Third	First	Carmel Mountain	6-Jun	JW, JV	Photo, Habitat Assessment
			Crest Canyon	6-Jun	JW, JV	Photo, Habitat Assessment
			Del Mar Mesa	6-Jun	JW, JV	Unable to access site due to construction
<i>Cordylanthus orcuttianus</i> (Orcutt's Bird's Beak)	First	First	Otay River Valley	2-Jun	JW, JV	Photo, Habitat Assessment
<i>Cylindropuntia [Opuntia] californica [ var. <i>serpentina</i> ]</i> (Snake Cholla)	Second	Third	Balboa Park	2-Jun	JW, JV	Photo, Habitat Assessment
			Otay Mesa	30-May	BYM, JV	Photo, Habitat Assessment
			Point Loma	6-Jun	JW, JV	Survey location unknown, population not located
			Spring Canyon	30-May	BYM, JV	Photo, Habitat Assessment
<i>Deinandra [Hemizonia] conjugens</i> (Otay Tarplant)	First	First	Dennery Ranch/ Oceanview	13-Jun	BYM, JV	Photo, Habitat Assessment
			Proctor Valley	5-Jun	BYM, JV	Photo, Habitat Assessment
<i>Dudleya blochmaniae</i> ssp. <i>brevifolia</i> (Short Leaf Dudleya)	First	First	Carmel Mountain	16-May	BYM, KG	Photo, Habitat Assessment
			Crest Canyon	16-May	BYM, KG	Photo, Habitat Assessment
			Skeleton Canyon	16-May	BYM, KG	Photo, Habitat Assessment

**City of San Diego MSCP Plant Monitoring:  
Priorities, Sites and Survey Dates**

Species	Risk Group (SDSU '06)	Risk Group (Ogden '96)	Site	Survey Date	Staff	Methodology
<i>Dudleya variegata</i> (Variegated Dudleya)	Second	First	East Elliott	21-May	JW, JV	Photo, Habitat Assessment
			Blk Mtn Park-East (BMR)	22-May	JW, JV	Photo, Habitat Assessment
			Goat Mesa/Spring Canyon	30-May	BYM, JV	Photo, Habitat Assessment
			Lake Murray	22-May	JW, JV	Photo, Habitat Assessment
			Mission Trails Regional Park	21-May	JW, JV	Photo, Habitat Assessment
			Navajo/Margarum/ Mission Gorge	21-May	JW, JV	Photo, Habitat Assessment
			Otay Lakes	16-May	JV, JW	Photo, Habitat Assessment
			Otay Mesa	23-May	BYM, JW	Presence/Absence
			Paradise Valley	23-May	BYM, JW	GPS, Presence/Absence
			Santa Luz (BMR)	22-May	JW, JV	Presence/Absence
<i>Eryngium aristulatum</i> var. <i>parishii</i> (San Diego Button Celery)	Second	None	Del Mar Mesa	29-Apr	KB, JW	Photo, Habitat Assessment
			General Dynamics	5-May	BYM, RR	Photo, Habitat Assessment
			Goat Mesa/Spring Canyon (J16-18)	30-May	BYM, JV	Photo, Habitat Assessment
			Lopez Ridge	29-Apr	KB, JW	Photo, Habitat Assessment
			Otay Lakes	15-Apr	BYM, JW	Photo, Habitat Assessment
			Robinhood Ridge	13-Jun	BYM, JV	Photo, Habitat Assessment



**City of San Diego MSCP Plant Monitoring:  
Priorities, Sites and Survey Dates**

Species	Risk Group (SDSU '06)	Risk Group (Ogden '96)	Site	Survey Date	Staff	Methodology
<i>Lessingia filaginifolia</i> var. <i>linifolia</i> (Del Mar Sand Aster)	None	Second	Del Mar Mesa	11-Jul	BYM, JV	Photo, Habitat Assessment
			Overlook Park/San Dieguito River	11-Jul	BYM, JV	Photo, Habitat Assessment
			Carmel Mountain	11-Jul	BYM, JV	Photo, Habitat Assessment
			Torrey Highlands	11-Jul	BYM, JV	Photo, Habitat Assessment
			Crest Canyon (Del Mar Highlands)	11-Jul	BYM, JV	Photo, Habitat Assessment
<i>Lotus nuttallianus</i> (Nuttall's lotus)	First	First	Dune Triangle	20-May	BYM, JW, JV	GPS, Photo, Habitat Assessment
			Hospitality Pt (Site 2)	20-May	BYM, JW, JV	GPS, Photo, Habitat Assessment
			Mariner's Point (Site 4)	2-Jun	JW, JV	Presence/Absence
			Mission Beach School (Site 5)	20-May	BYM, JV	Survey location unknown, population not located
			No Men's Land (Site 1)	20-May	BYM, JW, JV	GPS, Photo, Habitat Assessment
			SD Flood Control Riprap (Site 3)	20-May	BYM, JW, JV	GPS, Photo, Habitat Assessment
			South Shores (Site 6)	20-May	BYM, JW, JV	GPS, Photo, Habitat Assessment
<i>Monardella viminea</i> (Willow Monardella) and <i>Monardella stoneana</i> (Jennifer's Monardella)	Second	First	Sycamore Canyon	9-Jun	BYM, JW	Photo, Habitat Assessment
			Lopez Canyon	9-Jun	BYM, JW	Photo, Habitat Assessment
			Marron Valley	5-Jun	BYM, JV	Photo, Habitat Assessment
			Otay Lakes	5-Jun	BYM, JV	Photo, Habitat Assessment

**City of San Diego MSCP Plant Monitoring:  
Priorities, Sites and Survey Dates**

<b>Species</b>	<b>Risk Group (SDSU '06)</b>	<b>Risk Group (Ogden '96)</b>	<b>Site</b>	<b>Survey Date</b>	<b>Staff</b>	<b>Methodology</b>
<i>Navarretia fossalis</i> (Spreading Navarretia)	First	None	Carroll Canyon	22-Apr	BYM, JW	Photo, Habitat Assessment
			Goat Mesa/Spring Canyon (J16-18)	30-May	BYM, JV	Photo, Habitat Assessment
			Otay Lakes	24-Apr	BYM, KB	Photo, Habitat Assessment
			Robinhood Ridge	13-Jun	BYM, JV	Photo, Habitat Assessment
			Nobel Drive	22-Apr	BYM, JW	Photo, Habitat Assessment
<i>Orcuttia californica</i> (California Orcutt Grass)	First	None	Robinhood Ridge	13-Jun	BYM, JV	Photo, Habitat Assessment
<i>Pinus torreyana</i> ssp. <i>torreyana</i> (Torrey Pine)	First	None	Crest Canyon	6-Jun, 25-Jun, 27-Jun	JW, JV BYM, KG	Photo, Habitat Assessment, completed census begun 2007
<i>Pogogyne abramsii</i> (San Diego Mesa Mint)	Second	None	Del Mar Mesa	29-Apr	KB, JW	Photo, Habitat Assessment
			General Dynamics	6-May	BYM, RR	Photo, Habitat Assessment
			Mira Mesa/Carroll Canyon	22-Apr	BYM, JW	Photo, Habitat Assessment
			Lopez Ridge	29-Apr	KB, JW	Photo, Habitat Assessment
<i>Pogogyne nudiuscula</i> (Otay Mesa Mint)	First	None	Robinhood Ridge	13-Jun	BYM, JW	Photo, Habitat Assessment
<i>Rosa minutifolia</i> (Baja Rose)	First	Third	Dennery Ranch/ Oceanview	13-Jun	BYM, JV	Photo, Habitat Assessment

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