



Nobel Drive  
Vernal pool 4 looking west



Nobel Drive  
Vernal pool 5 looking north

### 3.2.5 Kearny Mesa

The Kearny Mesa area includes the following vernal pool sites: Cubic, Miramar, Sander, Magnatron, General Dynamics, Montgomery Field, and Serra Mesa Library.

**3.2.5.a** Cubic (U 19) is a 28-basin site located at the convergence of Highways 52 and 163. The 13.5-acre parcel is privately owned and is not conserved at this time. Directly adjacent to Cubic is a 3-acre, military-owned parcel that also contains vernal pools; however, this parcel was not surveyed due to access issues. Two endangered plant species were observed on-site: *E. aristulatum* was found in two basins and covered a total area of 35 square feet, and *P. abramsii* was found in one large basin and covered a total area of three square feet. This site was not discussed by Bauder (1986). Vernal pool indicator species and fairy shrimp noted on-site are listed in Table 25. *Branchinecta* spp. were also observed in six vernal pool basins. Amphibians were not noted on-site. For a map of this site, refer to 242-1725 in Appendix C.

<i>Callitriche marginata</i>	• <i>Myosurus minimus</i>	
<i>Crassula aquatica</i>	• <i>Navarretia fossalis</i>	
<i>Deschampsia danthoniodes</i>	• <i>Orcuttia californica</i>	
<i>Downingia cuspidata</i>	• <i>Phalaris lemmonii</i>	
<i>Elatine californica</i>	• <i>Phalaris</i> spp.	
<i>Epilobium pygmaeum</i>	<i>Pilularia americana</i>	
<b><i>Eryngium aristulatum</i></b>	• <i>Pilularia</i> spp.	
<i>Isoetes howellii</i>	<i>Plagiobothrys acanthocarpus</i>	
<i>Isoetes orcuttii</i>	<i>Plantago elongata</i>	
<i>Isoetes</i> spp.	<i>Plantago</i> spp.	
<i>Lilaea scilloides</i>	• <i>Pogogyne abramsii</i>	•
<i>Marsilea vestita</i>	<i>Pogogyne nudiuscula</i>	
<i>Malvella leprosa</i>	<i>Psilocarphus brevissimus</i>	•
<i>Branchinecta</i> spp.	• <i>Branchinecta sandiegonensis</i>	
<i>Branchinecta lindahli</i>	<i>Streptocephalus woottoni</i>	



Cubic  
Vernal pools 2 and 3 looking south

**3.2.5.b** Vernal pools located on MCAS Miramar (EE, FF, GA, GG, HH, RR) are not currently included in this inventory. However, the agency responsible for managing these resources is in the process of collecting data to be incorporated into this inventory.

**3.2.5.c** The Magnatron site (U 15) is comprised of a single, 14,719 square foot basin. No sensitive plant or animal species have been observed on the 1-acre parcel; the site is owned by the City of San Diego but is not conserved at this time. Bauder (1986) observed *E. aristulatum*, *M. minimus*, and *P. abramsii* at the U series, but complex-level information is not given for this site. Vernal pool indicator species and fairy shrimp observed at this site are listed in Table 26. For a map of this site, refer to 242-1725 in Appendix C.

<b>Table 26</b>		
<b>Magnatron</b>		
<b>Presence of Vernal Pool Indicator Species</b>		
<i>Callitriche marginata</i>	•	<i>Myosurus minimus</i>
<i>Crassula aquatica</i>	•	<i>Navarretia fossalis</i>
<i>Deschampsia danthoniodes</i>	•	<i>Orcuttia californica</i>
<i>Downingia cuspidata</i>		<i>Phalaris lemmonii</i>
<i>Elatine californica</i>	•	<i>Phalaris sp.</i>
<i>Epilobium pygmaeum</i>		<i>Pilularia americana</i>
<i>Eryngium aristulatum</i>		<i>Pilularia sp.</i>
<i>Isoetes howellii</i>		<i>Plagiobothrys acanthocarpus</i>

Table 26 , con't		
Magnatron		
Presence of Vernal Pool Indicator Species		
<i>Isoetes orcuttii</i>		<i>Plantago elongata</i>
<i>Isoetes sp.</i>		<i>Plantago sp.</i>
<i>Lilaea scilloides</i>	•	<i>Pogogyne abramsii</i>
<i>Marsilea vestita</i>		<i>Pogogyne nudiuscula</i>
<i>Malvella leprosa</i>		<i>Psilocarphus brevissimus</i>
<i>Branchinecta spp.</i>		<i>Branchinecta sandiegonensis</i>
<i>Branchinecta lindahli</i>		<i>Streptocephalus woottoni</i>



Magnatron  
Vernal pool 1 looking west

**3.2.5.d** Located along Highway 52 east of Convoy Street, 33 vernal pool basins cover 19,264 square feet of the 30.6-acre, City-owned Sander site (U 15). These vernal pools are not considered conserved; however, this site was the subject of a previous USFWS Section 7 consultation regarding the transfer of land from the Navy to the City. *P. abramsii* covered 652 square feet in a single large basin. Bauder (1986) observed *E. aristulatum*, *M. minimus*, and *P. abramsii* at the U series, but complex-level information is not given for this site. Vernal pool indicator species and fairy shrimp observed at this site are listed in Table 27. Two basins supported *B. sandiegonensis*, and *S. hammondii* were observed in one basin. For a map of this site, refer to 242-1725 in Appendix C.

Table 27		
Sander		
Presence of Vernal Pool Indicator Species		
<i>Callitriche marginata</i>	•	<i>Myosurus minimus</i>
<i>Crassula aquatica</i>	•	<i>Navarretia fossalis</i>
<i>Deschampsia danthoniodes</i>	•	<i>Orcuttia californica</i>
<i>Downingia cuspidata</i>	•	<i>Phalaris lemmonii</i>
<i>Elatine californica</i>		<i>Phalaris</i> spp.
<i>Epilobium pygmaeum</i>		<i>Pilularia americana</i>
<i>Eryngium aristulatum</i>		<i>Pilularia</i> spp.
<i>Isoetes howellii</i>		<i>Plagiobothrys acanthocarpus</i>
<i>Isoetes orcuttii</i>	•	<i>Plantago elongata</i>
<i>Isoetes</i> spp.		<i>Plantago</i> spp.
<i>Lilaea scilloides</i>		<i>Pogogyne abramsii</i>
<i>Marsilea vestita</i>		<i>Pogogyne nudiuscula</i>
<i>Malvella leprosa</i>		<i>Psilocarphus brevissimus</i>
<i>Branchinecta</i> spp.	•	<i>Branchinecta sandiegonensis</i>
<i>Branchinecta lindahli</i>		<i>Streptocephalus woottoni</i>



Sander  
Vernal pool 12 looking north



Sander  
Vernal pool 29 looking south

**3.2.5.e** General Dynamics (N 8) is a conserved mitigation site located north of Balboa Avenue along Ruffin Road. The 4.74-acre parcel is fenced. Twenty-one vernal pools covering a total area of 17,215 square feet support populations of the following sensitive plant species: *E. aristulatum* was observed in two vernal pools and covers approximately 92 square feet, while *P. abramsii* was observed in 20 basins and covers approximately 2,222 square feet. This site was not surveyed for the Bauder report (1986). Vernal pool indicator species and fairy shrimp noted on-site are listed in Table 28. San Diego fairy shrimp (*B. sandiegonensis*) were identified in six vernal pools on-site; *H. regilla* were also noted in a single basin. For a map of this site, refer to 234-1725 in Appendix C.

<b>Table 28</b>		
<b>General Dynamics</b>		
<b>Presence of Vernal Pool Indicator Species</b>		
<i>Callitriche marginata</i>	•	<i>Myosurus minimus</i>
<i>Crassula aquatica</i>	•	<i>Navarretia fossalis</i>
<i>Deschampsia danthoniodes</i>	•	<i>Orcuttia californica</i>
<i>Downingia cuspidata</i>	•	<i>Phalaris lemmonii</i>
<i>Elatine californica</i>	•	<i>Phalaris</i> spp.
<i>Epilobium pygmaeum</i>		<i>Pilularia americana</i>
<i>Eryngium aristulatum</i>	•	<i>Pilularia</i> spp.
<i>Isoetes howellii</i>	•	<i>Plagiobothrys acanthocarpus</i>
<i>Isoetes orcuttii</i>	•	<i>Plantago elongata</i>

Table 28, con't			
General Dynamics			
Presence of Vernal Pool Indicator Species			
<i>Isoetes</i> spp.		<i>Plantago</i> spp.	
<i>Lilaea scilloides</i>	•	<i>Pogogyne abramsii</i>	•
<i>Marsilea vestita</i>		<i>Pogogyne nudiuscula</i>	
<i>Malvella leprosa</i>		<i>Psilocarphus brevissimus</i>	•
<i>Branchinecta</i> spp.	•	<i>Branchinecta sandiegonensis</i>	•
<i>Branchinecta lindahli</i>		<i>Streptocephalus woottoni</i>	



General Dynamics  
Vernal pool 3 looking west



General Dynamics  
Vernal pool 3 looking south



General Dynamics  
Vernal pool 21 looking east

**3.2.5.f** Montgomery Field (N 1-4, N 5-6) includes many of the highest quality vernal pools in the City of San Diego. Two hundred seventy-six basins occur among the Mima topography on 544 acres owned by the City of San Diego. Over 6.7 acres of vernal pool basin area make this site the largest in the City. Located on the grounds of Montgomery Field airport north of Aero Drive, the majority of this site is restricted



from development by navigational easements. Vernal pools on-site also benefit from fencing surrounding the airstrip. However, the site is not considered conserved because it fails to meet the criteria designated by this inventory. *P. abramsii* was found in 131 basins on-site, covering an area of 19,523 square feet. This is consistent with results from Bauder (1986) which found abundant *P. abramsii* in “a large proportion of the estimated 138 [vernal] pools.” Vernal pool indicator species and fairy shrimp noted at this site are listed in Table 29. Fairy shrimp were observed in 19 vernal pools, and *B. sandiegonensis* were conclusively identified in 11 of those basins. Amphibians were noted in 66 basins: *B. boreas* in 30 basins, *H. regilla* in 11 basins, and *S. hammondii* in 25 basins. For a map of this site, refer to 234-1725 in Appendix C.

<b>Table 29</b>		
<b>Montgomery Field</b>		
<b>Presence of Vernal Pool Indicator Species</b>		
<i>Callitriche marginata</i>	• <i>Myosurus minimus</i>	
<i>Crassula aquatica</i>	• <i>Navarretia fossalis</i>	
<i>Deschampsia danthoniodes</i>	• <i>Orcuttia californica</i>	
<i>Downingia cuspidata</i>	• <i>Phalaris lemmonii</i>	•
<i>Elatine californica</i>	• <i>Phalaris</i> spp.	
<i>Epilobium pygmaeum</i>	<i>Pilularia americana</i>	•
<i>Eryngium aristulatum</i>	<i>Pilularia</i> spp.	•
<i>Isoetes howellii</i>	• <i>Plagiobothrys acanthocarpus</i>	•
<i>Isoetes orcuttii</i>	• <i>Plantago elongata</i>	•
<i>Isoetes</i> spp.	<i>Plantago</i> spp.	
<i>Lilaea scilloides</i>	• <i>Pogogyne abramsii</i>	•
<i>Marsilea vestita</i>	<i>Pogogyne nudiuscula</i>	
<i>Malvella leprosa</i>	<i>Psilocarphus brevissimus</i>	•
<i>Branchinecta</i> spp.	• <i>Branchinecta sandiegonensis</i>	•
<i>Branchinecta lindahli</i>	<i>Streptocephalus woottoni</i>	



Montgomery Field  
Vernal pool 151 looking west



Montgomery Field  
Vernal pool 205 looking east



Montgomery Field  
Vernal pool 67 looking northeast



Montgomery Field  
Vernal pool 126 looking north

**3.2.5.g** The Serra Mesa Library (N 7) site is located directly south of Montgomery Field across Aero Drive. The 25 vernal pools at this site cover 15,822 square feet of the 9.2-acre parcel. The land is owned by the City of San Diego and is not conserved at this time; however, current development plans for a library would protect and conserve the basins on-site. Historically, this site has been subject to off-road vehicle usage. No

sensitive plant or animal species were observed in 2003; vernal pool indicator species and fairy shrimp noted on-site are listed in Table 30. This area was not surveyed by Bauder (1986). For a map of this site, refer to 234-1725 in Appendix C.

<b>Table 30</b> <b>Serra Mesa</b> <b>Presence of Vernal Pool Indicator Species</b>		
<i>Callitriche marginata</i>		<i>Myosurus minimus</i>
<i>Crassula aquatica</i>	•	<b><i>Navarretia fossalis</i></b>
<i>Deschampsia danthoniodes</i>		<b><i>Orcuttia californica</i></b>
<i>Downingia cuspidata</i>		<i>Phalaris lemmonii</i>
<i>Elatine californica</i>		<i>Phalaris</i> spp.
<i>Epilobium pygmaeum</i>		<i>Pilularia americana</i>
<b><i>Eryngium aristulatum</i></b>		<i>Pilularia</i> spp.
<i>Isoetes howellii</i>		<i>Plagiobothrys acanthocarpus</i>
<i>Isoetes orcuttii</i>		<i>Plantago elongata</i>
<i>Isoetes</i> spp.		<i>Plantago</i> spp.
<i>Lilaea scilloides</i>		<b><i>Pogogyne abramsii</i></b>
<i>Marsilea vestita</i>		<b><i>Pogogyne nudiuscula</i></b>
<i>Malvella leprosa</i>		<i>Psilocarphus brevissimus</i>
<i>Branchinecta</i> spp.		<b><i>Branchinecta sandiegonensis</i></b>
<i>Branchinecta lindahli</i>		<b><i>Streptocephalus woottoni</i></b>



Serra Mesa  
Vernal pool 9 looking east



Serra Mesa  
Vernal pools 15, 14, 13, and 11 (clockwise) looking south

### 3.2.6 Mission Trails Regional Park

**3.2.6.a** Fifteen vernal pools, covering a total of 10,505 square feet, were mapped at Mission Trails Regional Park (Q 2). These vernal pools occur in four locations but are not designated as separate sites. Mission Trails Regional Park encompasses 5,760 acres in eastern San Diego, bordered by Highway 52 on the north and Santee on the east.