

Vernal Pool Habitat Conservation Plan (VPHCP)

Annual Monitoring and Management Report



City of San Diego

2019

I. Introduction

The City of San Diego (City) Vernal Pool Habitat Conservation Plan (VPHCP) is intended to provide an effective framework to protect, enhance, and restore vernal pool resources in specific areas of San Diego, while improving and streamlining the environmental permitting process for impacts to threatened and endangered species associated with vernal pools. The City developed this VPHCP to provide for the long-term conservation, management, and monitoring of these species and avoid costly delays and uncertainty associated with a project-by-project approach toward vernal pool conservation. Implementation of the VPHCP will preserve a network of vernal pool habitat in a matrix of open space; protect the biodiversity of these unique wetlands; and define a formal strategy for their long-term conservation, management, and monitoring.

The VPHCP is a conservation plan for vernal pools and seven threatened and endangered covered species that do not have federal coverage under the City's Multiple Species Conservation Program (MSCP) Subarea Plan (SAP), including five plant and two crustacean species (i.e., covered species):

- Otay Mesa mint (*Pogogyne nudiuscula*, PONU)
- San Diego mesa mint (*Pogogyne abramsii*, POAB)
- Spreading navarretia (*Navarretia fossalis*, NAFO)
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*, ERAR)
- California Orcutt grass (*Orcuttia californica*, ORCA)
- Riverside fairy shrimp (*Streptocephalus woottoni*, RFS)
- San Diego fairy shrimp (*Branchinecta sandiegonensis*, SDFS)

This report summarizes the methods and results of quantitative covered plant monitoring conducted in 2019 for 30 vernal pool complexes on lands owned and managed by City of San Diego (City), Park and Recreation Department Open Space Division, Public Utilities Department (PUD), Real Estate Assets Department (READ), and Environmental Services Department (ESD) in accordance with the Final City VPHCP (2018) and Vernal Pool Management and Monitoring Plan (VPMMP 2018).

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Anderprises

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Anderprises

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/26/2019 Start Time: 6:30:00

Surveyors: Jason Allen, Diana Brand, Jessie Lane

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,RecontouringPools,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Very bad quality pools.

Visit Date: 4/8/2019 Start Time: 6:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fence_install,Sign_install,Dump_cleanup,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Trash pickup and weed control soon.

Notes: Caltrans granting access to site from 905 South.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Anderprises

Visit Date: 5/28/2019 Start Time: 3:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Dump_cleanup,Trash_pickup,Grading_recontouring,Regularpatrolsr
ecommanded

Other Management Needs:

Additional Management Actions Recommended: Weed whacking, spraying and trash pickup in progress.

Notes: Sal tra sprayed. Lots of old concrete and trash dumps in area.

Management Actions Completed: Herbicide application to invasive species. Pickup trash.

Anderprises

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/26/2019
- Photo description: Upland native and invasive plants growing in vernal pool.



- Photo taken: 2/26/2019
- Photo description: Trash/debris onsite.

Anderprises

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/8/2019
- Photo description: Upland native and invasive plants growing in vernal pool.



- Photo taken: 4/8/2019
- Photo description: Trash/debris onsite.

Anderprises

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/28/2019
- Photo description: Upland native and invasive plants growing in vernal pool.



- Photo taken: 5/28/2019
- Photo description: Upland native and invasive plants growing in vernal pool removed.

Anderprises

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/28/2019
- Photo description: Trash/debris in vernal pools buffer.



- Photo taken: 5/28/2019
- Photo description: Trash/debris in vernal pools buffer removed.

Anderprises

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/28/2019
- Photo description: Trash and debris picked up and hauled away from vernal pools for disposal. Herbicide was applied to invasive plants in vernal pool buffer zone.

Brown Field

Planning Unit: South

Land Owner: City of San Diego

Managing Department: READ - Airports

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Brown_Field_Basins

Planning Unit: South

City or Other? City

Managing Department: READ_Airports

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/23/2019 Start Time: 19:30:00

Surveyors: Cindy Dunn

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Wrong_Tim Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed: These basins are highly disturbed due to the regular mowing of the airfield.

Are other issues observed is new or ongoing? Ongoing

Management Needs:

Other Management Needs:

Additional Management Actions Recommended: These pools may be impacted by the MAP project.
Management in pending the outcome of the mitigation for MAP.

Notes:

Visit Date: 3/27/2019 Start Time: 22:30:00

Surveyors: Cindy Dunn

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed: These basins are highly disturbed due to the regular mowing of the airfield.

Are other issues observed is new or ongoing? Ongoing

Management Needs:

Other Management Needs:

Additional Management Actions Recommended: These pools may be impacted by the MAP project.
Management in pending the outcome of the mitigation for MAP.

Notes:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Brown_Field_Basins

Visit Date: 6/5/2019 Start Time: 23:30:00

Surveyors: Cindy Dunn

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed: These basins are highly disturbed due to the regular mowing of the airfield.

Are other issues observed is new or ongoing? Ongoing

Management Needs:

Other Management Needs:

Additional Management Actions Recommended: These pools may be impacted by the MAP project.
Management in pending the outcome of the mitigation for MAP.

Notes:

Management Actions Completed:

Cal Terraces North - Otay Mesa Road Parcels

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/24/2019 Start Time: 16:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Fencerepair,Add_replace_lock,Add_replace_chain,Trash_pickup,Regularpatrols recommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Weeds near edges and throughout, mustard, ice plant, erodium. Trash near edges.

Visit Date: 3/12/2019 Start Time: 17:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: New

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Sign_install,Trash_pickup,Regularpatrolsrecommended,Add_replace_lock,Add_replace_chain

Other Management Needs:

Additional Management Actions Recommended: Weed management soon.

Notes: Jason manually cut mustard on 3/12/19.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

Visit Date: 5/21/2019 Start Time: 2:30:00

Surveyors: Jason Allen, Sara Allen, Mark Berninger, Jessie Lane, Diana Brand, Ninfa Negrete

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Continue weed control. Dit Gra seedlings. Mes sp. throughout site.

Notes:

Management Actions Completed:

Date: 10/2/2018 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 11/16/2018 Completed by: Jason Allen, Diana Brand, Jessie Lane

Contractor (if applicable)

Management Actions Completed: Trash and debris cleaned up.

Notes/Comments:

Date: 3/1/2019 Completed by: Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 3/15/2019 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Weed whack invasive species.

Notes/Comments:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

Date: 3/18/2019 **Completed by:** Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 3/25/2019 **Completed by:** Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 5/6/2019 **Completed by:** Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Weed whack invasive species.

Notes/Comments:

Date: 5/13/2019 **Completed by:** Jason Allen, Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 5/24/2019 **Completed by:** Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species. Pickup trash.

Notes/Comments:

Date: 6/18/2019 **Completed by:** Jason Allen, Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 6/24/2019 **Completed by:** Jason Allen

Contractor (if applicable)

Management Actions Completed: Pickup trash.

Notes/Comments:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

Date: 6/28/2019 **Completed by:** Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Cal Terraces North

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 9/25/2019
- Photo description: Invasive plants – Stinkwort (*Dittrichia graveolens*) present in vernal pools and surrounding buffer.



- Photo taken: 9/25/2019
- Photo description: Herbicide application to invasive plants in vernal pool complex.

Cal Terraces North

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 10/2/2019
- Photo description: Herbicide application to invasive plants encroaching into vernal pool complex.



- Photo taken: 10/2/2019
- Photo description: After herbicide application to invasive plants encroaching into vernal pool complex.

Cal Terraces North

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 11/16/2019
- Photo description: Trash/debris onsite.



- Photo taken: 11/16/2019
- Photo description: Interns assisting with trash/debris removal.

Cal Terraces North

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/12/2019
- Photo description: Invasive plants encroaching into vernal pools.



- Photo taken: 3/12/2019
- Photo description: Trash/debris onsite.

Cal Terraces North

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/6/2019
- Photo description: Invasive plants encroaching on native plants being weed whacked.



- Photo taken: 5/13/2019
- Photo description: Invasive plant – Crystalline ice plant (*Mesembryanthemum sp.*) present in vernal pool complex.

Cal Terraces North

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/13/2019
- Photo description: Herbicide application to invasive plants in vernal pool complex.



- Photo taken: 5/21/2019
- Photo description: Invasive plant – Crystalline ice plant (*Mesembryanthenum sp.*) encroaching on a native barrel cactus.

Cal Terraces North

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/24/2019
- Photo description: Trash/debris onsite and cleaned up.



- Photo taken: 6/27/2019
- Photo description: Invasive plants in vernal pool complex.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 42

Photopoint X: -117.00909158200

Photopoint Y: 32.56923167240

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 63.0 Baseline Cover of NAFO: 3.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 38.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 1:06 PM

Survey End Time: 1:35 PM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR,NAFO

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	<1%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 5-10%

Native Species Richness in Basin: 8

Nonnative Species in Pool

Species Name	Cover
Dittrichia graveolens	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 42

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bloomeria crocea - common goldenstar
Bromus madritensis - compact brome
Camissoniopsis bistorta - southern suncup
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Dittrichia graveolens - Stinkwort
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Logfia gallica - narrowleaf cottonrose
Navarretia hamata - hooked pincushionplant
Plagiobothrys acanthocarpus - adobe popcornflower
Psilocarphus brevissimus - woolly marble
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 42



Photo taken: 5/21/2019

Photo location is -117.00909158200, 32.56923167240 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 51

Photopoint X: -117.00956761900

Photopoint Y: 32.56892326770

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 1.0 Baseline Cover of ORCA: 1.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 38.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 1:44 PM

Survey End Time: 2:12 PM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR,POAB,NAFO

Cover of ERAR in Basin <1%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin 1-5%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	<1%
Callitriche marginata - California water starwort	<1%
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Epilobium campestre	10-25%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Dittrichia graveolens	1-5%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 3

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 51

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Bahiopsis laciniata - torhleaf goldeneye
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dittrichia graveolens - Stinkwort
Encelia californica - California brittlebush
Epilobium campestre - Smooth boisduvalia
Eriogonum fasciculatum - Eastern Mojave buckwheat
Euphorbia misera - Cliff spurge
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Juncus bufonius - toad rush
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Myosurus minimus - little mouse tail
Navarretia fossalis - Spreading navarretia
Navarretia hamata - hooked pincushionplant
Peritoma arborea - bladderpod spiderflower
Phalaris minor - littleseed canarygrass
Pogogyne nudiuscula - Otay mesa mint
Pseudognaphalium beneolens - cudweed
Pseudognaphalium californicum - ladies' tobacco
Psilocarphus tenellus - short woollyheads
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 51



Photo taken: 5/21/2019

Photo location is -117.00956761900, 32.56892326770 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 67

Photopoint X: -117.00739243600

Photopoint Y: 32.57577115110

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 3.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 63.0

2019 Quantitative Monitoring Data

Survey Date 5/22/2019

Survey Start Time: 2:08 PM

Survey End Time:

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Artemisia californica - coastal sagebrush	<1%
Baccharis sarothroides - desertbroom	<1%
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	1-5%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 5-10%

Native Species Richness in Basin: 9

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Festuca myuros - rattail sixweeks grass	5-10%
Gastridium phleoides - nit grass	<1%
Lysimachia arvensis - scarlet pimpernel	1-5%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 67

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Amaranthus albus - tumbleweed
Antirrhinum nuttallianum - Nuttall's snapdragon
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Festuca perennis - Italian rye grass
Gastroidium phleoides - nit grass
Hainardia cylindrica - Thin tail
Hypochaeris glabra - smooth cat's ear
Lactuca serriola - prickly lettuce
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Mirabilis laevis - desert wishbone bush
Muhlenbergia microsperma - littleseed muhly
Navarretia hamata - hooked pincushionplant
Phalaris minor - littleseed canarygrass
Pholistoma racemosum - San diego fiesta flower
Plagiobothrys acanthocarpus - adobe popcornflower
Pogogyne nudiuscula - Otay mesa mint
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 67



Photo taken: 5/22/2019

Photo location is -117.00739243600, 32.57577115110 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 78

Photopoint X: -117.00771936200

Photopoint Y: 32.57534329240

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 1.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/22/2019

Survey Start Time: 3:07 PM

Survey End Time: 3:41 PM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 10-25%

Other Native Species in Pool:

Species Name	Cover
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Epilobium campestre	<1%
Juncus bufonius - toad rush	<1%
Marsilea vestita	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Beta vulgaris	1-5%
Carduus pycnocephalus - Italian plumeless thistle	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Phalaris aquatica - harding Grass	<1%
Phalaris minor - littleseed canarygrass	<1%
Rumex crispus - curly dock	<1%
Sonchus asper - spiny sowthistle	1-5%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 78

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Amsinckia intermedia - common fiddleneck
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brachypodium distachyon - purple false brome
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Crassula connata - sand pygmyweed
Cylindropuntia californica - California cholla
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Logfia gallica - narrowleaf cottonrose
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Navarretia hamata - hooked pincushionplant
Pogogyne nudiuscula - Otay mesa mint
Psilocarphus tenellus - short woollyheads
Rhus integrifolia - lemonade berry
Rosa minutifolia - small-leaved rose
Simmondsia chinensis - jojoba
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 78



Photo taken: 5/22/2019

Photo location is -117.00771936200, 32.57534329240 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 89

Photopoint X: -117.00866986300

Photopoint Y: 32.57526712800

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 16.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 63.0	

2019 Quantitative Monitoring Data

Survey Date 5/22/2019

Survey Start Time: 2:06 PM

Survey End Time: 2:46 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Artemisia californica - coastal sagebrush	<1%
Crassula connata - sand pygmyweed	<1%
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	25-50%
Deschampsia danthonioides - annual hairgrass	<1%
Erigeron canadensis - Canada horseweed	<1%
Eriogonum fasciculatum - Eastern Mojave buckwheat	<1%
Lepidium nitidum - shining pepperweed	<1%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	1-5%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	10-25%
Selaginella cinerascens - mesa spikemoss	<1%

Cover of Other Native Species in Basin 50-75% Native Species Richness in Basin: 15

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	1-5%
Festuca myuros - rattle sixweeks grass	5-10%
Lactuca serriola - prickly lettuce	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 10-25% Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 10-25% Cover of Rocks/Cobble in Basin: 25-50% Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 89

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Amsinckia intermedia - common fiddleneck
Artemisia californica - coastal sagebrush
Avena barbata - slender oat
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Dudleya pulverulenta - chalk dudleya
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Lamarckia aurea - goldentop grass
Lysimachia arvensis - scarlet pimpernel
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Psilocarphus brevissimus - woolly marble
Salsola tragus - prickly Russian thistle
Schismus barbatus - common Mediterranean grass
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Sonchus oleraceus - common sowthistle
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 89



Photo taken: 5/22/2019

Photo location is -117.00866986300, 32.57526712800 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

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Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 96

Photopoint X: -117.00829554900

Photopoint Y: 32.57519091080

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 63.0 Baseline Cover of NAFO: 1.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 3.0

2019 Quantitative Monitoring Data

Survey Date 5/22/2019

Survey Start Time: 2:48 PM

Survey End Time: 3:19 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis montevidensis - sand spikerush	5-10%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 9

Nonnative Species in Pool

Species Name	Cover
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 1

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Baccharis sarothroides

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 96

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Brachypodium distachyon - purple false brome
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia prolifera - coastal cholla
Distichlis spicata - saltgrass
Eriogonum fasciculatum - Eastern Mojave buckwheat
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Lepidium nitidum - shining pepperweed
Mesembryanthemum crystallinum - common iceplant
Navarretia hamata - hooked pincushionplant
Rosa minutifolia - small-leaved rose
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 96



Photo taken: 5/22/2019

Photo location is -117.00829554900, 32.57519091080 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 100

Photopoint X: -117.00758533500

Photopoint Y: 32.57511068150

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 80.0 Baseline Cover of NAFO: 3.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/22/2019

Survey Start Time: 2:09 PM

Survey End Time: 2:47 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	<1%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 9

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Dittrichia graveolens	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Baccharis sarothroides

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 100

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cryptantha intermedia - Common cryptantha
Cryptantha sp. - cryptantha
Cylindropuntia prolifera - coastal cholla
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Isocoma menziesii - Menzies' goldenbush
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Navarretia hamata - hooked pincushionplant
Opuntia littoralis - coastal pricklypear
Phacelia cicutaria - caterpillar phacelia
Psilocarphus brevissimus - woolly marble
Schismus barbatus - common Mediterranean grass
Simmondsia chinensis - jojoba
Yucca schidigera - Mojave yucca

Notes/Comments: Southern pacific rattlesnake in pool. California gnatcatcher calling within buffer.

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 100



Photo taken: 5/22/2019

Photo location is -117.00758533500, 32.57511068150 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 295

Photopoint X: -117.00744618500

Photopoint Y: 32.57449253160

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/22/2019

Survey Start Time: 2:58 PM

Survey End Time: 3:27 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	<1%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 7

Nonnative Species in Pool

Species Name	Cover
Centaurea melitensis - Maltese star-thistle	<1%
Festuca myuros - rattle tail sixweeks grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Baccharis sarothroides

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 295

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus madritensis - compact brome
Camissoniopsis bistorta - southern suncup
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Malosma laurina - laurel sumac
Malva parviflora - cheeseweed mallow
Matricaria discoidea - pineapple weed
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Navarretia hamata - hooked pincushionplant
Opuntia littoralis - coastal pricklypear
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Schismus barbatus - common Mediterranean grass
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster

Notes/Comments: California gnatcatcher pair calling in pool buffer area

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 295



Photo taken: 5/22/2019

Photo location is -117.00744618500, 32.57449253160 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 301

Photopoint X: -117.00815842000

Photopoint Y: 32.57251959650

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 63.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 37.0	

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 2:28 PM

Survey End Time: 2:44 PM

Surveyors: Sara Allen, Jessie Lane

VPHCP Covered Species Present: PONU,ERAR,ORCA

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin: Cover

Cover of ORCA in Basin

Cover of POAB in Basin

of PONU in Basin 5-10%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Juncus bufonius - toad rush	<1%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	1-5%
Myosurus minimus - little mouse tail	1-5%
Navarretia hamata - hooked pincushionplant	<1%
Navarretia hamata - hooked pincushionplant	<1%
Peritoma arborea - bladderpod spiderflower	<1%
Peritoma arborea - bladderpod spiderflower	<1%
Plantago erecta - California plantain	<1%
Plantago erecta - California plantain	<1%
Psilocarphus brevissimus - woolly marble	10-25%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Bromus madritensis - compact brome	<1%
Festuca myuros - rattle sixweeks grass	1-5%
Festuca myuros - rattle sixweeks grass	1-5%
Logfia gallica - narrowleaf cottonrose	<1%
Logfia gallica - narrowleaf cottonrose	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 3

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Baccharis sarothroides

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 301

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Atriplex canescens - fourwing saltbush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Deinandra fasciculata - clustered tarweed
Erodium botrys - longbeak stork's bill
Euphorbia misera - Cliff spurge
Festuca myuros - rattail sixweeks grass
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa pulchra - purple needlegrass

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 301



Photo taken: 5/21/2019

Photo location is -117.00815842000, 32.57251959650 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 445

Photopoint X: -117.00782288100

Photopoint Y: 32.57202948570

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 63.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 38.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 1:44 PM

Survey End Time: 2:20 PM

Surveyors: Sara Allen, Jessie Lane

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 10-25%

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	<1%
Deinandra fasciculata - clustered tarweed	50-75%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	50-75%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	1-5%
Gastridium phleoides - nit grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 445

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Antirrhinum nuttallianum - Nuttall's snapdragon
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia californica - California cholla
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Gastridium phleoides - nit grass
Lamarckia aurea - goldentop grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Navarretia hamata - hooked pincushionplant
Rosa minutifolia - small-leaved rose
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster
Unknown - herb
Yucca schidigera - Mojave yucca
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 445



Photo taken: 5/21/2019

Photo location is -117.00782288100, 32.57202948570 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 447

Photopoint X: -117.00697304900

Photopoint Y: 32.57208295730

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 63.0 Baseline Cover of NAFO: 1.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 1:07 PM

Survey End Time: 1:35 PM

Surveyors: Sara Allen, Jessie Lane

VPHCP Covered Species Present: ERAR,NAFO

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin: 1-5%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	5-10%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	25-50%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Baccharis sarothroides

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 447

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cylindropuntia californica - California cholla
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Logfia gallica - narrowleaf cottonrose
Salsola tragus - prickly Russian thistle
Schismus barbatus - common Mediterranean grass
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster
Stipa pulchra - purple needlegrass
Yucca schidigera - Mojave yucca
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 447



Photo taken: 5/21/2019

Photo location is -117.00697304900, 32.57208295730 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 449

Photopoint X: -117.00824750600

Photopoint Y: 32.57107438200

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 38.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 1:08 PM

Survey End Time: 1:55 PM

Surveyors: Jason Allen

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 5-10%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Cryptantha sp. - cryptantha	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 12

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 3

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Baccharis sarothroides

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 449

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Grindelia camporum - gumweed
Isocoma menziesii - Menzies' goldenbush
Juncus bufonius - toad rush
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lysimachia minima - chaffweed
Mesembryanthemum crystallinum - common iceplant
Navarretia hamata - hooked pincushionplant
Peritoma arborea - bladderpod spiderflower
Phacelia cicutaria - caterpillar phacelia
Plantago erecta - California plantain
Psilocarphus tenellus - short woollyheads
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 449



Photo taken: 5/21/2019

Photo location is -117.00824750600, 32.57107438200 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 450

Photopoint X: -117.00801833200

Photopoint Y: 32.57106887980

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 38.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 1:59 PM

Survey End Time: 2:34 PM

Surveyors: Jason Allen

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	<1%
Crassula connata - sand pygmyweed	<1%
Cryptantha sp. - cryptantha	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Lepidium nitidum - shining pepperweed	<1%
Navarretia hamata - hooked pincushionplant	<1%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Festuca myuros - rattle sixweeks grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Unknown shrub

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 450

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia californica - California cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Hedypnois cretica - Cretanweed
Hypochaeris glabra - smooth cat's ear
Lamarckia aurea - goldentop grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lysimachia minima - chaffweed
Mesembryanthemum crystallinum - common iceplant
Navarretia hamata - hooked pincushionplant
Peritoma arborea - bladderpod spiderflower
Phacelia cicutaria - caterpillar phacelia
Plantago elongata - annual coast plantago
Plantago erecta - California plantain
Psilocarphus brevissimus - woolly marble
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 450



Photo taken: 5/21/2019

Photo location is -117.00801833200, 32.57106887980 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 451

Photopoint X: -117.00687672700

Photopoint Y: 32.57103052540

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 16.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 3.0	

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 11:13 AM

Survey End Time: 11:37 AM

Surveyors: Sara Allen, Jessie Lane

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Artemisia californica - coastal sagebrush	<1%
Deinandra conjugens - Otay tarplant	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 5-10%

Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Dittrichia graveolens	1-5%
Erodium cicutarium - redstem stork's bill	25-50%
Festuca myuros - rattail sixweeks grass	<1%
Lactuca serriola - prickly lettuce	<1%
Melilotus indica - annual yellow sweetclover	<1%
Phalaris minor - littleseed canarygrass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 25-50%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 451

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cryptantha sp. - cryptantha
Cylindropuntia prolifera - coastal cholla
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Grindelia camporum - gumweed
Lepidium nitidum - shining pepperweed
Lycium andersonii - Anderson thornbush
Malva parviflora - cheeseweed mallow
Simmondsia chinensis - jojoba
Stephanomeria diegensis - San Diego milk aster

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 451



Photo taken: 5/21/2019

Photo location is -117.00687672700, 32.57103052540 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 452

Photopoint X: -117.00729392100

Photopoint Y: 32.57107822780

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 80.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 10:37 AM

Survey End Time: 11:11 AM

Surveyors: Sara Allen, Jessie Lane

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	10-25%
Deinandra conjugens - Otay tarplant	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 9

Nonnative Species in Pool

Species Name	Cover
Beta vulgaris	<1%
Erodium cicutarium - redstem stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Gastridium phleoides - nit grass	<1%
Parapholis incurva	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Baccharis sarothroides

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 452

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Apiastrum angustifolium - mock parsley
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia prolifera - coastal cholla
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Lactuca serriola - prickly lettuce
Lamarckia aurea - goldentop grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Oncosiphon piluliferum - stinknet
Parapholis incurva - sickle grass
Psilocarphus brevissimus - woolly marble
Pterostegia drymarioides - woodland threadstem
Salsola tragus - prickly Russian thistle
Schismus barbatus - common Mediterranean grass
Simmondsia chinensis - jojoba
Stephanomeria diegensis - San Diego milk aster
Stipa pulchra - purple needlegrass
Yucca schidigera - Mojave yucca

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 452



Photo taken: 5/21/2019

Photo location is -117.00729392100, 32.57107822780 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 459

Photopoint X: -117.00729726500

Photopoint Y: 32.57070880010

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 3.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 9:48 AM

Survey End Time: 10:28 AM

Surveyors: Sara Allen, Jessie Lane

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra conjugens - Otay tarplant	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 5-10%

Native Species Richness in Basin: 9

Nonnative Species in Pool

Species Name	Cover
Dittrichia graveolens	<1%
Erodium cicutarium - redstem stork's bill	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 459

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Apiastrum angustifolium - mock parsley
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bergerocactus emoryi - Golden spined cereus
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cylindropuntia californica - California cholla
Cylindropuntia prolifera - coastal cholla
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dicranostegia orcuttiana - Orcutt's birds-beak
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Matricaria discoidea - pineapple weed
Opuntia littoralis - coastal pricklypear
Psilocarphus brevissimus - woolly marble
Simmondsia chinensis - jojoba
Stipa pulchra - purple needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 459



Photo taken: 5/21/2019

Photo location is -117.00729726500, 32.57070880010 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 464

Photopoint X: -117.00680402900

Photopoint Y: 32.57062819120

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 16.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 9:13 AM

Survey End Time: 9:41 AM

Surveyors: Sara Allen, Jessie Lane

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Baccharis pilularis - coyotebrush	<1%
Convolvulus simulans - field bindweed	<1%
Deinandra conjugens - Otay tarplant	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Psilocarphus brevissimus - woolly marble	<1%
Stephanomeria diegensis - San Diego milk aster	<1%

Cover of Other Native Species in Basin 1-5%

Native Species Richness in Basin: 6

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	<1%
Centaurea melitensis - Maltese star-thistle	5-10%
Erodium cicutarium - redstem stork's bill	25-50%
Festuca myuros - rattle tail sixweeks grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	1-5%
Melilotus indica - annual yellow sweetclover	<1%
Oncosiphon piluliferum - stinknet	<1%
Sonchus asper - spiny sowthistle	5-10%

Cover of Nonnative Species in Basin: 50-75%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 464

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cylindropuntia prolifera - coastal cholla
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium cicutarium - redstem stork's bill
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Lepidium nitidum - shining pepperweed
Lycium andersonii - Anderson thornbush
Matricaria discoidea - pineapple weed
Opuntia littoralis - coastal pricklypear
Rhus integrifolia - lemonade berry
Simmondsia chinensis - jojoba
Stipa lepida - foothill needlegrass

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 464



Photo taken: 5/21/2019

Photo location is -117.00680402900, 32.57062819120 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 471

Photopoint X: -117.00677941000

Photopoint Y: 32.57038296720

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 3.0 Baseline Cover of ORCA: 3.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 38.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 9:13 AM

Survey End Time: 9:52 AM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Ambrosia chenopodiifolia - San Diego bur ragweed	<1%
Artemisia californica - coastal sagebrush	<1%
Baccharis sarothroides - desertbroom	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	<1%
Lactuca serriola - prickly lettuce	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Oncosiphon piluliferum - stinknet	<1%
Oxalis pes-caprae - Sourgrass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 471

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Antirrhinum nuttallianum - Nuttall's snapdragon
Artemisia californica - coastal sagebrush
Avena sp. - oat
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia californica - California cholla
Cylindropuntia prolifera - coastal cholla
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Dicranostegia orcuttiana - Orcutt's birds-beak
Dittrichia graveolens - Stinkwort
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Lysimachia arvensis - scarlet pimpernel
Malosma laurina - laurel sumac
Rhus integrifolia - lemonade berry
Simmondsia chinensis - jojoba
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Yucca schidigera - Mojave yucca

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 471



Photo taken: 5/21/2019

Photo location is -117.00677941000, 32.57038296720 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 473

Photopoint X: -117.00745860200

Photopoint Y: 32.57011866340

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 16.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 10:04 AM

Survey End Time: 10:37 AM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: PONU,ERAR,NAFO

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	5-10%
Deschampsia danthonioides - annual hairgrass	<1%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 7

Nonnative Species in Pool

Cover of Nonnative Species in Basin: 0

Nonnative Species Richness in Basin: 0

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 473

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bergerocactus emoryi - Golden spined cereus
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Dicranostegia orcuttiana - Orcutt's birds-beak
Eriogonum elongatum - longstem buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Mirabilis laevis - desert wishbone bush
Navarretia hamata - hooked pincushionplant
Plagiobothrys acanthocarpus - adobe popcornflower
Psilocarphus tenellus - short woollyheads
Simmondsia chinensis - jojoba
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 473



Photo taken: 5/21/2019

Photo location is -117.00745860200, 32.57011866340 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 483

Photopoint X: -117.00707001700

Photopoint Y: 32.56981794580

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 3.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 9:13 AM

Survey End Time: 10:05 AM

Surveyors: Jason Allen

VPHCP Covered Species Present: ERAR,ORCA

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin <1%

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	<1%
Callitriche marginata - California water starwort	5-10%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	<1%
Lepidium nitidum - shining pepperweed	<1%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	25-50%
Simmondsia chinensis - jojoba	<1%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 12

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattle sixweeks grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Silene gallica - common catchfly	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Baccharis sarothroides, woody unknown

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 483

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bergerocactus emoryi - Golden spined cereus
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia californica - California cholla
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eleocharis macrostachya - common spikerush
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Galium angustifolium - narrowleaf bedstraw
Hypochaeris glabra - smooth cat's ear
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Navarretia hamata - hooked pincushionplant
Orcuttia californica - Orcutt's grass
Peritoma arborea - bladderpod spiderflower
Phalaris minor - littleseed canarygrass
Pogogyne nudiuscula - Otay mesa mint
Psilocarphus tenellus - short woollyheads
Rosa minutifolia - small-leaved rose
Schismus barbatus - common Mediterranean grass
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Simmondsia chinensis - jojoba
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 483



Photo taken: 5/21/2019

Photo location is -117.00707001700, 32.56981794580 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 484

Photopoint X: -117.00741098200

Photopoint Y: 32.56992845520

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 16.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 3.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 10:47 AM

Survey End Time: 11:33 AM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Eleocharis macrostachya - common spikerush	1-5%
Marsilea vestita	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 6

Nonnative Species in Pool

Species Name	Cover
Dittrichia graveolens	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 484

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bergerocactus emoryi - Golden spined cereus
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Encelia californica - California brittlebush
Eriogonum elongatum - longstem buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Navarretia hamata - hooked pincushionplant
Oncosiphon piluliferum - stinknet
Peritoma arborea - bladderpod spiderflower
Pogogyne nudiuscula - Otay mesa mint
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Simmondsia chinensis - jojoba
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Yucca schidigera - Mojave yucca
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 484



Photo taken: 5/21/2019

Photo location is -117.00741098200, 32.56992845520 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 490

Photopoint X: -117.00707537100

Photopoint Y: 32.56970186600

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 16.0 Baseline Cover of NAFO: 1.0 Baseline Cover of ORCA: 16.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 10:07 AM

Survey End Time: 10:50 AM

Surveyors: Jason Allen

VPHCP Covered Species Present: ORCA,ERAR,PONU

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin 10-25%

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Epilobium campestre	<1%
Juncus bufonius - toad rush	<1%
Marsilea vestita	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Artemisia californica, Baccharis sarothroides

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 490

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Amsinckia intermedia - common fiddleneck
Apiastrum angustifolium - mock parsley
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia californica - California cholla
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Eleocharis macrostachya - common spikerush
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Juncus bufonius - toad rush
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Mammillaria dioica - fish hook cactus
Navarretia hamata - hooked pincushionplant
Opuntia littoralis - coastal pricklypear
Plagiobothrys acanthocarpus - Adobe allocarya
Psilocarphus brevissimus - woolly marble
Rosa minutifolia - small-leaved rose
Schismus barbatus - common Mediterranean grass
Simmondsia chinensis - jojoba
Stipa lepida - foothill needlegrass

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 490



Photo taken: 5/21/2019

Photo location is -117.00707537100, 32.56970186600 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 502

Photopoint X: -117.00675027200

Photopoint Y: 32.56946502310

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 16.0 Baseline Cover of NAFO: 1.0 Baseline Cover of ORCA: 3.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 11:03 AM

Survey End Time: 11:41 AM

Surveyors: Jason Allen

VPHCP Covered Species Present: PONU,ERAR,NAFO,ORCA

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin <1%

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Crassula connata - sand pygmyweed	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	<1%
Marsilea vestita	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Festuca myuros - rattail sixweeks grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 502

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Atriplex semibaccata - Australian saltbush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cistanthe maritima - seaside calandrinia
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia californica - California cholla
Cylindropuntia prolifera - coastal cholla
Dittrichia graveolens - Stinkwort
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Lysimachia arvensis - scarlet pimpernel
Navarretia hamata - hooked pincushionplant
Opuntia littoralis - coastal pricklypear
Pogogyne nudiuscula - Otay mesa mint
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus tenellus - short woollyheads
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Yucca schidigera - Mojave yucca

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 502



Photo taken: 5/21/2019

Photo location is -117.00675027200, 32.56946502310 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 509

Photopoint X: -117.00727772600

Photopoint Y: 32.56936961860

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0 Baseline Cover of NAFO: 3.0 Baseline Cover of ORCA: 3.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 16.0

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 3:32 PM

Survey End Time: 4:01 PM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: POAB,ERAR,ORCA,NAFO

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin 5-10%

Cover of POAB in Basin 1-5%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	10-25%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 1

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 509

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bergerocactus emoryi - Golden spined cereus
Brachypodium distachyon - purple false brome
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Juncus bufonius - toad rush
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Navarretia hamata - hooked pincushionplant
Pogogyne nudiuscula - Otay mesa mint
Simmondsia chinensis - jojoba
Stipa lepida - foothill needlegrass
Yucca schidigera - Mojave yucca

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 509



Photo taken: 5/16/2019

Photo location is -117.00727772600, 32.56936961860 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 591

Photopoint X: -117.00699302100

Photopoint Y: 32.56897284890

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 38.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 38.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 3.0	

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 10:41 AM

Survey End Time: 11:28 AM

Surveyors: Sara Allen, Sarah McCutcheon

VPHCP Covered Species Present: PONU,ERAR,ORCA

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin 25-50%

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Ambrosia pumila - San Diego ambrosia	1-5%
Callitriche marginata - California water starwort	<1%
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra conjugens - Otay tarplant	<1%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Navarretia hamata - hooked pincushionplant	<1%
Oxalis californica - California wood sorrel	<1%
Pseudognaphalium stramineum - cottonbatting plant	<1%
Psilocarphus brevissimus - woolly marble	10-25%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 14

Nonnative Species in Pool

Species Name	Cover
Erodium cicutarium - redstem stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Unknown shrub

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 591

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Ambrosia pumila - San Diego ambrosia
Apiastrum angustifolium - mock parsley
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bergerocactus emoryi - Golden spined cereus
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Eleocharis macrostachya - common spikerush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Hordeum intercedens - Vernal barley
Lactuca serriola - prickly lettuce
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Malosma laurina - laurel sumac
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Navarretia hamata - hooked pincushionplant
Oxalis californica - California wood sorrel
Pogogyne nudiuscula - Otay mesa mint
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Schismus barbatus - common Mediterranean grass
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa pulchra - purple needlegrass
Yucca schidigera - Mojave yucca
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 591



Photo taken: 5/16/2019

Photo location is -117.00699302100, 32.56897284890 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 1310

Photopoint X: -117.00759363400

Photopoint Y: 32.56857329120

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 20.0	Baseline Cover of NAFO: 0.5	Baseline Cover of ORCA: 1.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 15.0	

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 3:27 PM

Survey End Time: 4:35 PM

Surveyors: Jason Allen

VPHCP Covered Species Present: PONU,ERAR,ORCA,NAFO

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin <1%

Cover of POAB in Basin

Cover of PONU in Basin 10-25%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	5-10%
Crassula aquatica - Aquatic pygmy weed	<1%
Crassula connata - sand pygmyweed	<1%
Deinandra conjugens - Otay tarplant	1-5%
Deschampsia danthonioides - annual hairgrass	1-5%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	<1%
Eriogonum fasciculatum - Eastern Mojave buckwheat	<1%
Holocarpha virgata ssp. elongata - Graceful tarplant	<1%
Juncus bufonius - toad rush	<1%
Lepidium nitidum - shining pepperweed	<1%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Osmadenia tenella - false rosinweed	<1%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	10-25%
Simmondsia chinensis - jojoba	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 19

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium sp. - stork's bill	<1%
Festuca myuros - rattle sixweeks grass	<1%
Lamarckia aurea - goldentop grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Unknown shrub

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 1310

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Amsinckia intermedia - common fiddleneck
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Encelia californica - California brittlebush
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Glebionis coronaria - crown daisy
Holocarpa virgata ssp. elongata - Graceful tarplant
Hypochaeris glabra - smooth cat's ear
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Navarretia fossalis - Spreading navarretia
Navarretia hamata - hooked pincushionplant
Osmadenia tenella - false rosinweed
Phalaris aquatica - harding Grass
Pogogyne nudiuscula - Otay mesa mint
Psilocarphus brevissimus - woolly marble
Salvia mellifera - black sage
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Yucca schidigera - Mojave yucca

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1310



Photo taken: 5/16/2019

Photo location is -117.00759363400, 32.56857329120 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 1321

Photopoint X: -117.00910037800

Photopoint Y: 32.56862252390

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 2.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 5.0	

2019 Quantitative Monitoring Data

Survey Date 5/21/2019

Survey Start Time: 2:19 PM

Survey End Time: 2:50 PM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: PONU,ERAR,NAFO

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 10-25%

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	5-10%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Epilobium campestre	1-5%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Amaranthus albus	<1%
Centaurea melitensis - Maltese star-thistle	1-5%
Erigeron sumatrensis - tropical horseweed	<1%
Erodium cicutarium - redstem stork's bill	<1%
Lysimachia arvensis - scarlet pimpernel	1-5%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Phalaris aquatica - harding Grass	<1%
Ricinus communis - castor bean	<1%
Sonchus asper - spiny sowthistle	1-5%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin <1%

Cover of Rocks/Cobble in Basin: <1%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 1321

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Bahiopsis laciniata - torhleaf goldeneye
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Juncus bufonius - toad rush
Lactuca serriola - prickly lettuce
Logfia gallica - narrowleaf cottonrose
Nuttallanthus canadensis - Canada toadflax
Phalaris minor - littleseed canarygrass
Plantago erecta - California plantain
Pogogyne nudiuscula - Otay mesa mint
Psilocarphus brevissimus - woolly marble
Ricinus communis - castor bean
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1321



Photo taken: 5/21/2019

Photo location is -117.00910037800, 32.56862252390 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 1713

Photopoint X: -117.00661338700

Photopoint Y: 32.56863941650

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 30.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 3:40 PM

Survey End Time: 4:03 PM

Surveyors: Sara Allen, Sarah McCutcheon

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	<1%
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 7

Nonnative Species in Pool

Species Name	Cover
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Glebionis coronaria - crown daisy	<1%
Lysimachia arvensis - scarlet pimpernel	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 1713

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Avena barbata - slender oat
Bahiopsis laciniata - torhleaf goldeneye
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hypochaeris glabra - smooth cat's ear
Logfia gallica - narrowleaf cottonrose
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: Dittrichia graveolens cover >1% ; this pool was mislabeled 1716 in the 2018 survey

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1713



Photo taken: 5/16/2019

Photo location is -117.00661338700, 32.56863941650 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 1724

Photopoint X: -117.00584036700

Photopoint Y: 32.56872004800

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 40.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 9:13 AM

Survey End Time: 10:04 AM

Surveyors: Sara Allen, Sarah McCutcheon

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Baccharis pilularis - coyotebrush	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	5-10%
Psilocarphus brevissimus - woolly marble	<1%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 6

Nonnative Species in Pool

Species Name	Cover
Amaranthus albus	1-5%
Festuca perennis - Italian rye grass	<1%
Glebionis coronaria - crown daisy	<1%
Polygonum aviculare ssp. depressum - prostrate knotweed	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin <1%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesNorth_OtayMesaRdParcels

VP_ID: 1724

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Avena barbata - slender oat
Baccharis pilularis - coyotebrush
Baccharis salicifolia - mule-fat
Beta vulgaris - beet
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Commom ornamental shrub with pink flowers
Convolvulus simulans - field bindweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Dittrichia graveolens - stinkwort
Encelia californica - California brittlebush
Epilobium campestre - Smooth boisduvalia
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca perennis - Italian rye grass
Glebionis coronaria - crown daisy
Hainardia cylindrica - Thin tail
Heteromeles arbutifolia - toyon
Hypochaeris glabra - smooth cat's ear
Lactuca serriola - prickly lettuce
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Lythrum hyssopifolia - hyssop loosestrife
Melilotus indica - annual yellow sweetclover
Polypogon monspeliensis - annual rabbitsfoot grass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Spergularia bocconi - sand spurry

Notes/Comments: None

Cal Terraces North

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1724



Photo taken: 5/16/2019

Photo location is -117.00584036700, 32.56872004800 NAD83 State Plane California Zone 6 (feet)

Cal Terraces South

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_CalTerracesSouth

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/7/2019 Start Time: 4:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Wrong_Tim Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Fencerepair,Gaterepair,Add_replace_lock,Sign_install,Trash_pickup,Regularpat
rolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Weeds present East and South edges. High priority maintenance site.

Visit Date: 3/4/2019 Start Time: 8:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer:

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Sign_install,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: More weed control soon.

Notes: Done during fairy shrimp surveys.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_CalTerracesSouth

Visit Date: 5/16/2019 Start Time: 22:30:00

Surveyors: Jason Allen, Mark Berninger, Sara Allen, Diana Brand, Ninfa Negrete, Sarah McCutcheon

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Wrong_T

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Continue weed control. Dittrichia graveolens and crystalline ice plant.

Notes:

Management Actions Completed:

Date: 10/2/2018 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 12/4/2018 Completed by: Araceli Dominguez

Contractor (if applicable)

Management Actions Completed: Trash and debris cleaned up. Reported vandalize fence and took pictures.

Notes/Comments:

Date: 2/11/2019 Completed by: Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 2/25/2019 Completed by: Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_CalTerracesSouth

Date: 4/19/2019 **Completed by:** Jason Allen

Contractor (if applicable)

Management Actions Completed: Pickup trash, apply herbicide to invasive plants and install 3 signs.

Notes/Comments:

Date: 6/17/2019 **Completed by:** Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 6/24/2019 **Completed by:** Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Cal Terraces South

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 9/25/2018
- Photo description: Invasive plants – stinkwort (*Dittrichia graveolens*) present in vernal pool complex.



- Photo taken: 11/27/2018
- Photo description: Invasive plants – stinkwort (*Dittrichia graveolens*) dead from previous herbicide application.

Cal Terraces South

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 1/7/2019
- Photo description: Fence broken.



- Photo taken: 1/7/2019
- Photo description: Trash/debris onsite.

Cal Terraces South

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 1/10/2019
- Photo description: Dead vegetation and algae bloom in vernal pool.



- Photo taken: 2/3/2019
- Photo description: After more rain algae bloom was flushed out. Dead vegetation present.

Cal Terraces South

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/15/2019
- Photo description: Invasive plants around vernal pool.



- Photo taken: 4/19/2019
- Photo description: Herbicide application to invasive plants in vernal pool complex.

Cal Terraces South

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/19/2019
- Photo description: Regulatory sign installation directed towards adjacent property that throws trash into vernal pool complex.



- Photo taken: 6/24/2019
- Photo description: Herbicide application to invasive plants in vernal pool complex watershed.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2022

Photopoint X: -117.00117072000

Photopoint Y: 32.56694358220

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 12:19 PM

Survey End Time: 12:47 PM

Surveyors: Sara Alen, Sarah McCutcheon

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	25-50%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	5-10%

Cover of Nonnative Species in Basin: 5-10% Nonnative Species Richness in Basin: 3

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2022

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Antirrhinum nuttallianum - Nuttall's snapdragon
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Deinandra conjugens - Otay tarplant
Dittrichia graveolens - stinkwort
Encelia californica - California brittlebush
Epilobium campestre - Smooth boisduvalia
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Helminthotheca echioides - bristly oxtongue
Juncus bufonius - toad rush
Lasthenia gracilis - needle goldfields
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Lythrum hyssopifolia - hyssop loosestrife
Malosma laurina - laurel sumac
Matricaria discoidea - pineapple weed
Navarretia hamata - hooked pincushionplant
Phacelia cicutaria - caterpillar phacelia
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Rosa minutifolia - small-leaved rose
Simmondsia chinensis - jojoba
Sisyrinchium bellum - Western blue-eyed grass
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Urtica dioica - stinging nettle
Zeltnera venusta - charming centaury

Notes/Comments: None

Cal Terraces South

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 2022



Photo taken: 5/16/2019

Photo location is -117.00117072000, 32.56694358220 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2025

Photopoint X: -116.99933810400

Photopoint Y: 32.56666046540

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 3.0	Baseline Cover of NAFO: 0.5	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 5.0	

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 12:25 PM

Survey End Time: 2:00 PM

Surveyors: Jason Allen

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Amaranthus blitoides	<1%
Amblyopappus pusillus	<1%
Baccharis sarothroides - desertbroom	<1%
Callitriche marginata - California water starwort	5-10%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	5-10%
Epilobium campestre	<1%
Erigeron canadensis - Canada horseweed	<1%
Frankenia salina - alkali seaheath	<1%
Juncus bufonius - toad rush	1-5%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 15

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	<1%
Bromus madritensis - compact brome	<1%
Festuca myuros - rattle sixweeks grass	1-5%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	1-5%
Rumex crispus - curly dock	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Brassica nigra, Dittrichia graveolens, Salsola tragus

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2025

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Amaranthus blitoides - Prostrate pigweed
Ambrosia chenopodiifolia - San Diego bur ragweed
Amsinckia sp.
Artemisia californica - coastal sagebrush
Atriplex semibaccata - Australian saltbush
Bahiopsis laciniata - torhleaf goldeneye
Bergerocactus emoryi - Golden spined cereus
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dittrichia graveolens - Stinkwort
Dudleya edulis - fingertips
Dudleya pulverulenta - chalk dudleya
Eleocharis macrostachya - common spikerush
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Frankenia salina - alkali seaheath
Glebionis coronaria - crown daisy
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Malosma laurina - laurel sumac
Marsilea vestita - Hairy waterclover
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Navarretia fossalis - Spreading navarretia
Navarretia hamata - hooked pincushionplant
Oncosiphon piluliferum - stinknet
Pogogyne nudiuscula - Otay mesa mint
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Schismus barbatus - common Mediterranean grass
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Unknown - herb

Cal Terraces South

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 2025



Photo taken: 5/16/2019

Photo location is -116.99933810400, 32.56666046540 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2039

Photopoint X: -117.00093555400

Photopoint Y: 32.56649483220

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 15.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 1:01 PM

Survey End Time: 1:36 PM

Surveyors: Sara Allen, Sarah McCutcheon

VPHCP Covered Species Present: PONU,ERAR,NAFO

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 25-50%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 7

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Festuca myuros - rattail sixweeks grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Matricaria discoidea - pineapple weed	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Unknown dead shrubs

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2039

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Apiastrum angustifolium - mock parsley
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Grindelia camporum - gumweed
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Matricaria discoidea - pineapple weed
Navarretia hamata - hooked pincushionplant
Peritoma arborea - bladderpod spiderflower
Plantago erecta - California plantain
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Schismus barbatus - common Mediterranean grass
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Unknown - grass

Notes/Comments: Dittrichia was 1-5% cover

Cal Terraces South

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 2039



Photo taken: 5/16/2019

Photo location is -117.00093555400, 32.56649483220 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2043

Photopoint X: -116.99984533700

Photopoint Y: 32.56626511550

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.5	

2019 Quantitative Monitoring Data

Survey Date 7/10/2019

Survey Start Time: 3:31 PM

Survey End Time: 3:56 PM

Surveyors: Jason Allen, Diana Brand Ramirez, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Amblyopappus pusillus	<1%
Callitriche marginata - California water starwort	5-10%
Deinandra fasciculata - clustered tarweed	<1%
Eleocharis macrostachya - common spikerush	<1%
Encelia californica - California brittlebush	<1%
Epilobium campestre	<1%
Eriogonum fasciculatum - Eastern Mojave buckwheat	<1%
Euphorbia serpyllifolia	<1%
Heliotropium curassavicum - salt heliotrope	<1%
Juncus bufonius - toad rush	<1%
Marsilea vestita	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	<1%
Verbena bracteata	<1%

Cover of Other Native Species in Basin 5-10%

Native Species Richness in Basin: 15

Nonnative Species in Pool

Species Name	Cover
Lythrum hyssopifolia - hyssop loosestrife	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2043

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Astragalus trichopodus - Santa Barbara milkvetch
Bahiopsis laciniata - torhleaf goldeneye
Bromus madritensis - compact brome
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra conjugens - Otay tarplant
Deinandra fasciculata - clustered tarweed
Dittrichia graveolens - Stinkwort
Dudleya edulis - fingertips
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Heliotropium curassavicum - salt heliotrope
Juncus bufonius - toad rush
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Malosma laurina - laurel sumac
Mammillaria dioica - fish hook cactus
Mesembryanthemum nodiflorum - slender leaved ice plant
Muhlenbergia rigens - deergrass
Navarretia hamata - hooked pincushionplant
Opuntia littoralis - coastal pricklypear
Peritoma arborea - bladderpod spiderflower
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Salvia apiana - white sage
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Yucca schidigera - Mojave yucca

Notes/Comments: None

Cal Terraces South

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 2043



Photo taken: 7/10/19

Photo location is -116.99984533700, 32.56626511550 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2044

Photopoint X: -117.00053600400

Photopoint Y: 32.56626913220

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 20.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 5.0

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 1:53 PM

Survey End Time: 2:23 PM

Surveyors: Sara Allen, Sarah McCutcheon

VPHCP Covered Species Present: PONU,ERAR,NAFO

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Festuca myuros - rattail sixweeks grass	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 1

Bare Ground Cover in Basin <1%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Artemesia californica, unknown shrub

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2044

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Camissoniopsis bistorta - southern suncup
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Dittrichia graveolens - stinkwort
Encelia californica - California brittlebush
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Logfia gallica - narrowleaf cottonrose
Lycium andersonii - Anderson thornbush
Matricaria discoidea - pineapple weed
Navarretia hamata - hooked pincushionplant
Peritoma arborea - bladderpod spiderflower
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Yucca schidigera - Mojave yucca
Zeltnera venusta - charming centaury

Notes/Comments: Dittrichia is 1-5% cover

Cal Terraces South

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 2044



Photo taken: 5/16/2019

Photo location is -117.00053600400, 32.56626913220 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2185

Photopoint X: -116.99967038700

Photopoint Y: 32.56789064870

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 60.0

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 12:23 PM

Survey End Time:

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 25-50%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Epilobium campestre	<1%
Juncus bufonius - toad rush	1-5%
Navarretia hamata - hooked pincushionplant	1-5%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Centaurea melitensis - Maltese star-thistle	<1%
Erigeron sumatrensis - tropical horseweed	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Unknown mustard	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2185

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Amblyopappus pusillus - Pineapple weed
Ambrosia chenopodiifolia - San Diego bur ragweed
Apiastrum angustifolium - mock parsley
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Encelia californica - California brittlebush
Erigeron sumatrensis - tropical horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Euphorbia misera - Cliff spurge
Festuca myuros - rattail sixweeks grass
Frankenia salina - alkali seaheath
Glebionis coronaria - crown daisy
Grindelia camporum - gumweed
Helminthotheca echioides - bristly oxtongue
Juncus bufonius - toad rush
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lythrum hyssopifolia - hyssop loosestrife
Malacothamnus densiflorus - many-flowered bush mallow
Malosma laurina - laurel sumac
Malvella leprosa - alkali mallow
Mesembryanthemum nodiflorum - slender leaved ice plant
Navarretia hamata - hooked pincushionplant
Osmadenia tenella - false rosinweed
Peritoma arborea - bladderpod spiderflower
Phalaris minor - littleseed canarygrass
Plantago erecta - California plantain
Pogogyne nudiuscula - Otay mesa mint
Pseudognaphalium beneolens - cudweed
Psilocarphus tenellus - short woollyheads
Salvia apiana - white sage
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Yucca schidigera - Mojave yucca

Notes/Comments: None

Cal Terraces South

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 2185



Photo taken: 5/16/2019

Photo location is -116.99967038700, 32.56789064870 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2189

Photopoint X: -116.99998868700

Photopoint Y: 32.56744808210

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 5.0	

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 1:58 PM

Survey End Time: 2:48 PM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: PONU,NAFO,ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Crassula aquatica - Aquatic pygmy weed	1-5%
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Eleocharis macrostachya - common spikerush	<1%
Epilobium campestre	1-5%
Eriogonum fasciculatum - Eastern Mojave buckwheat	<1%
Frankenia salina - alkali seaheath	<1%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Plantago elongata - annual coast plantago	<1%
Plantago erecta - California plantain	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 13

Nonnative Species in Pool

Species Name	Cover
Dittrichia graveolens	<1%
Unknown mustard	1-5%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_CalTerracesSouth

VP_ID: 2189

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Amblyopappus pusillus - Pineapple weed
Ambrosia chenopodiifolia - San Diego bur ragweed
Brachypodium distachyon - purple false brome
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Dittrichia graveolens - Stinkwort
Eleocharis macrostachya - common spikerush
Encelia californica - California brittlebush
Epilobium campestre - Smooth boisduvalia
Erigeron sumatrensis - tropical horseweed
Eriogonum elongatum - longstem buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Frankenia salina - alkali seaheath
Iva hayesiana - San Diego marsh elder
Juncus bufonius - toad rush
Lactuca serriola - prickly lettuce
Logfia filaginoides - California cottonrose
Matricaria discoidea - pineapple weed
Melilotus indica - annual yellow sweetclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Navarretia fossalis - Spreading navarretia
Navarretia hamata - hooked pincushionplant
Plantago erecta - California plantain
Pogogyne nudiuscula - Otay mesa mint
Polypogon interruptus - ditch rabbitsfoot grass
Psilocarphus brevissimus - woolly marble
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Unknown - herb
Yucca schidigera - Mojave yucca

Notes/Comments: None

Cal Terraces South

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 2189



Photo taken: 5/16/2019

Photo location is -116.99998868700, 32.56744808210 NAD83 State Plane California Zone 6 (feet)

Carmel Mountain

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Carmel_Mountain

Planning Unit: North City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level: VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/2/2019 Start Time: 9:30:00

Surveyors: Rob Wheeler, Diana Brand

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs:

Other Management Needs:

Additional Management Actions Recommended:

Notes: Non native grasses, thistle present.

Visit Date: 3/21/2019 Start Time: 21:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed management soon.

Notes: Brass buttons, erodium, grasses around pools. Evidence of canine tracks in pools.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Carmel_Mountain

Visit Date: 5/3/2019 Start Time: 17:30:00

Surveyors: Jason Allen, Sara Allen, Mark Berninger

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Regularpatrolsrecommended,RestReveg

Other Management Needs:

Additional Management Actions Recommended: Weed whack after plants go to seed.

Notes:

Management Actions Completed:

Date: 5/11/2019 Completed by: Melanie Fontana

Contractor (if applicable)

Management Actions Completed: Hand-pulled invasive plants

Notes/Comments:

Date: 6/28/2019 Completed by: Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Hand-pulled invasive plants

Notes/Comments:

Carmel Mountain

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/21/2019
- Photo description: Old off-road vehicle tracks observed in vernal pools.



- Photo taken: 3/21/2019
- Photo description: Invasive species – nonnative grasses present in vernal pool and upland buffer areas.

Carmel Mountain

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/21/2019
- Photo description: Broken fence that restricts access to vernal pools.



- Photo taken: 3/21/2019
- Photo description: Broken fence that restricts access to vernal pools repaired.

Carmel Mountain

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/3/2019
- Photo description: Invasive species – nonnative grasses present in vernal pool and upland buffer areas.



- Photo taken: 5/7/2019
- Photo description: Broken fence that restricts access to vernal pools.

Carroll Canyon

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Carroll_Canyon

Planning Unit: North

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/2/2019 Start Time: 8:30:00

Surveyors: Rob Wheeler, Diana Brand

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Non native grasses, thistle present.

Visit Date: 2/4/2019 Start Time: 3:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects: New

Invasive Species in Buffer: Ongoing

Hydrological Impacts:New

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed management soon.

Notes: Tractor drove on access road near pool to grade it? If dam breaks it would flood vernal pool with muddy water. Weeds erodium, mustard, cistus ladafiner, tocolote thistle.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Carroll_Canyon

Visit Date: 4/3/2019 Start Time: 3:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Dump_cleanup,Regularpatrolsrecommended,RecontouringPools

Other Management Needs:

Additional Management Actions Recommended: Weed control soon.

Notes: Some stinkwort seedlings, minimal weeds except border areas or pools and complex. Cistus seedlings at east fenced border.

Visit Date: 5/2/2019 Start Time: 8:30:00

Surveyors: Jason Allen, Sara Allen, Mark Berninger, Jessie Lane, Diana Brand, Sarah McCutcheon

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed management

Notes:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Carroll_Canyon

Management Actions Completed:

Date: 10/9/2018 **Completed by:** Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 6/19/2019 **Completed by:** Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Carroll Canyon

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 10/9/2018
- Photo description: Old brush pile onsite.



- Photo taken: 10/9/2018
- Photo description: Invasive plant – Rock rose (*Cistus ladanifer*) treated with herbicide to keep it from encroaching into vernal pools.

Carroll Canyon

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/4/2019
- Photo description: Low spot in access path at risk of flooding into adjacent vernal pool.



- Photo taken: 4/3/2019
- Photo description: Old brush pile onsite.

Carroll Canyon

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 6/19/2019
- Photo description: Invasive plant – Rock rose (*Cistus ladanifer*) treated with herbicide to keep it from encroaching into vernal pools.



- Photo taken: 6/19/2019
- Photo description: Native wildflowers carpeting the bottom of a dry vernal pool.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1077

Photopoint X: -117.15833015200

Photopoint Y: 32.89720344030

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR:	1.0	Baseline Cover of NAFO:	0.5	Baseline Cover of ORCA:	0.0
Baseline Cover of POAB:	1.0	Baseline Cover of PONU:	0.0		

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 11:06 AM

Survey End Time: 11:45 AM

Surveyors: Sara Allen, Sarah McCutcheon

VPHCP Covered Species Present: ERAR,NAFO,POAB

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin 10-25%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Callitriche marginata - California water starwort	<1%
Cuscuta californica - California dodder	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Downingia cuspidata - Toothed downingia	<1%
Eleocharis macrostachya - common spikerush	<1%
Navarretia hamata - hooked pincushionplant	1-5%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 12

Nonnative Species in Pool

Species Name	Cover
Polypogon monspeliensis - annual rabbitsfoot grass	1-5%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 1

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1077

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Apiastrum angustifolium - mock parsley
Brodiaea orcuttii - Orcutt's brodiaea
Bromus madritensis - compact brome
Callitriche marginata - California water starwort
Calochortus splendens - splendid mariposa lily
Chlorogalum parviflorum - smallflower soap plant
Cotula coronopifolia - common brassbuttons
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Cuscuta californica - California dodder
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Downingia cuspidata - Toothed downingia
Eriophyllum confertiflorum - golden yarrow
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Galium angustifolium - narrowleaf bedstraw
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lasthenia gracilis - needle goldfields
Logfia gallica - narrowleaf cottonrose
Melica imperfecta - California melic
Navarretia hamata - hooked pincushionplant
Phalaris lemmonii - Lemmon's canarygrass
Pogogyne abramsii - San Diego mesa mint
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Psilocarphus tenellus - short woollyheads
Selaginella cinerascens - mesa spikemoss
Stylocline gnaphaloides - everlasting nest straw
Uropappus lindleyi - silver puffs

Notes/Comments: California gnatcatcher calling near pool

Carroll Canyon

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1077



Photo taken: 5/2/2019

Photo location is -117.15833015200, 32.89720344030 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1092

Photopoint X: -117.15838338100

Photopoint Y: 32.89696329340

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 3.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 9:26 AM

Survey End Time: 10:54 AM

Surveyors: Jason Allen, Sara Allen, Mark Berninger, Sarah McCutcheon

VPHCP Covered Species Present: POAB,ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 25-50%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Callitriche marginata - California water starwort	25-50%
Crassula aquatica - Aquatic pygmy weed	<1%
Cuscuta californica - California dodder	<1%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Downingia cuspidata - Toothed downingia	25-50%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	1-5%
Microseris elegans - elegant silverpuffs	<1%
Navarretia hamata - hooked pincushionplant	1-5%
Phalaris lemmonii - Lemmon's canarygrass	<1%
Psilocarphus brevissimus - woolly marble	5-10%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 16

Nonnative Species in Pool

Species Name	Cover
Festuca myuros - rattail sixweeks grass	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 1

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1092

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Apiastrum angustifolium - mock parsley
Brodiaea orcuttii - Orcutt's brodiaea
Bromus madritensis - compact brome
Chlorogalum parviflorum - smallflower soap plant
Chorizanthe polygonoides var. longispina - knotweed spineflower
Crassula connata - sand pygmyweed
Cuscuta californica - California dodder
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Dittrichia graveolens - Stinkwort
Downingia cuspidata - Toothed downingia
Eleocharis macrostachya - common spikerush
Eriophyllum confertiflorum - golden yarrow
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lasthenia gracilis - needle goldfields
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs
Navarretia hamata - hooked pincushionplant
Phalaris lemmonii - Lemmon's canarygrass
Plantago erecta - California plantain
Pogogyne abramsii - San Diego mesa mint
Pseudognaphalium californicum - ladies' tobacco
Psilocarphus tenellus - short woollyheads
Salvia mellifera - black sage
Selaginella cinerascens - mesa spikemoss
Sonchus asper - spiny sowthistle
Stipa pulchra - purple needlegrass
Stylocline gnaphaloides - everlasting nest straw
Zeltnera venusta - charming centauray

Notes/Comments: Some broken glass in pool

Carroll Canyon

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1092



Photo taken: 5/2/2019

Photo location is -117.15838338100, 32.89696329340 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1096

Photopoint X: -117.15785528600

Photopoint Y: 32.89728136740

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 10.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 1.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 11:54 AM

Survey End Time: 12:36 AM

Surveyors: Sara Allen, Sarah McCutcheon

VPHCP Covered Species Present: ERAR, POAB

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 10-25%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Callitriche marginata - California water starwort	<1%
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Downingia cuspidata - Toothed downingia	<1%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 13

Nonnative Species in Pool

Species Name	Cover
Festuca myuros - rattail sixweeks grass	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1096

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Apiastrum angustifolium - mock parsley
Brodiaea orcuttii - Orcutt's brodiaea
Bromus madritensis - compact brome
Callitriche marginata - California water starwort
Castilleja exserta - exserted Indian paintbrush
Chlorogalum parviflorum - smallflower soap plant
Cotula coronopifolia - common brassbuttons
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower
Eriophyllum confertiflorum - golden yarrow
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs
Muilla maritima - sea muilla
Navarretia hamata - hooked pincushionplant
Pseudognaphalium californicum - ladies' tobacco
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Psilocarphus tenellus - short woollyheads
Selaginella cinerascens - mesa spikemoss
Sisyrinchium bellum - Western blue-eyed grass
Stylocline gnaphaloides - everlasting nest straw
Zeltnera venusta - charming centaury

Notes/Comments: None

Carroll Canyon

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1096



Photo taken: 5/2/2019

Photo location is -117.15785528600, 32.89728136740 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1109

Photopoint X: -117.15672575300

Photopoint Y: 32.89760125070

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 20.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 3.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 2:14 PM

Survey End Time: 3:02 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: POAB,ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 5-10%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Callitriche marginata - California water starwort	1-5%
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Downingia cuspidata - Toothed downingia	<1%
Eleocharis macrostachya - common spikerush	1-5%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Psilocarphus tenellus - short woollyheads	<1%
Selaginella cinerascens - mesa spikemoss	<1%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 14

Nonnative Species in Pool

Species Name	Cover
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Unknown grass	<1%

Cover of Nonnative Species in Basin: <1% Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1109

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Callitriche marginata - California water starwort
Chlorogalum parviflorum - smallflower soap plant
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Navarretia hamata - hooked pincushionplant
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium bioletti - two-color rabbit-tobacco
Psilocarphus tenellus - short woollyheads
Selaginella cinerascens - mesa spikemoss
Unknown - grass

Notes/Comments: To navigate to pool, enter at pool 1738 to 1108

Carroll Canyon

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1109



Photo taken: 5/2/2019

Photo location is -117.15672575300, 32.89760125070 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1740

Photopoint X: -117.15661463700

Photopoint Y: 32.89782871730

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 30.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 5.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 11:19 AM

Survey End Time: 12:19 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: POAB,ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 10-25%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Selaginella cinerascens - mesa spikemoss	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 12

Nonnative Species in Pool

Species Name	Cover
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	5-10%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1740

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Brodiaea orcuttii - Orcutt's brodiaea
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chorizanthe polygonoides - knotweed spineflower
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Diplacus aurantiacus var. Auranthiacus - sticky monkeyflower
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Navarretia hamata - hooked pincushionplant
Pogogyne abramsii - San Diego mesa mint
Polypogon monspeliensis - annual rabbitsfoot grass
Salvia mellifera - black sage
Selaginella cinerascens - mesa spikemoss
Sonchus asper - spiny sowthistle

Notes/Comments: pool does not include southeastern protrusion

Carroll Canyon

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1740



Photo taken: 5/2/2019

Photo location is -117.15661463700, 32.89782871730 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1743

Photopoint X: -117.15628560300

Photopoint Y: 32.89799605060

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 20.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 11:14 AM

Survey End Time: 12:24 PM

Surveyors: Mark Berninger, Diana Brand-Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Crassula aquatica - Aquatic pygmy weed	1-5%
Cuscuta californica - California dodder	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	1-5%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	1-5%
Phalaris lemmonii - Lemmon's canarygrass	1-5%
Psilocarphus brevissimus - woolly marble	1-5%
Sisyrinchium bellum - Western blue-eyed grass	<1%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 13

Nonnative Species in Pool

Species Name	Cover
Festuca myuros - rattle sixweeks grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Sonchus asper - spiny sowthistle	<1%
Unknown grass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1743

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Brassica nigra - black mustard
Brodiaea orcuttii - Orcutt's brodiaea
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chlorogalum parviflorum - smallflower soap plant
Cuscuta californica - California dodder
Daucus pusillus - American wild carrot
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Eryngium aristulatum var. parishii - San Diego button celery
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lythrum hyssopifolia - hyssop loosestrife
Marah macrocarpus - Cucamonga manroot
Navarretia hamata - hooked pincushionplant
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium beneolens - cudweed
Sisyrinchium bellum - Western blue-eyed grass
Sonchus asper - spiny sowthistle

Notes/Comments: None

Carroll Canyon

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1743



Photo taken: 5/2/2019

Photo location is -117.15628560300, 32.89799605060 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1746

Photopoint X: -117.15783980300

Photopoint Y: 32.89772240070

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 10.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 1.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 2:09 PM

Survey End Time: 2:59 PM

Surveyors: Mark Berninger, Diana Brand-Ramirez

VPHCP Covered Species Present: POAB,ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin <1%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Callitriche marginata - California water starwort	1-5%
Crassula aquatica - Aquatic pygmy weed	1-5%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Downingia cuspidata - Toothed downingia	<1%
Juncus bufonius - toad rush	5-10%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	5-10%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 1

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Carroll_Canyon

VP_ID: 1746

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Brodiaea orcuttii - Orcutt's brodiaea
Bromus madritensis - compact brome
Chlorogalum parviflorum - smallflower soap plant
Deschampsia danthonioides - annual hairgrass
Diplacus aurantiacus var. Aurantiacus - sticky monkeyflower
Downingia cuspidata - Toothed downingia
Eleocharis macrostachya - common spikerush
Festuca myuros - rattail sixweeks grass
Gastidium phleoides - nit grass
Juncus bufonius - toad rush
Juncus sp.
Lamarckia aurea - goldentop grass
Navarretia hamata - hooked pincushionplant
Phalaris lemmonii - Lemmon's canarygrass
Pseudognaphalium bioletti - two-color rabbit-tobacco
Pseudognaphalium californicum - ladies' tobacco
Selaginella cinerascens - mesa spikemoss
Sisyrinchium bellum - Western blue-eyed grass
Solanum sp. - nightshade
Sonchus asper - spiny sowthistle
Stipa pulchra - purple needlegrass

Notes/Comments: None

Carroll Canyon

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1746



Photo taken: 5/2/2019

Photo location is -117.15783980300, 32.89772240070 NAD83 State Plane California Zone 6 (feet)

Clayton Parcel

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Clayton_Parcel

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/31/2019 Start Time: 21:30:00

Surveyors: Jason Allen, Jessie Lane

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Add_replace_lock,Add_replace_chain,Fence_install,Sig
n_install,Dump_cleanup,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Grant project to restore by Chap Lands Institute in progress on
1/3 of site.

Notes: Grass is prime for spraying now. Check with D. Hogan. Fencing needs to be done.

Visit Date: 3/12/2019 Start Time: 16:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Add_replace_lock,Add_replace_chain,Fence_install,Sig
n_install,Dump_cleanup,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed maintenance and trash removalupcoming

Notes: Chaparral Lands Conservancy only focusing on 5 acres for maint/restoration.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Clayton_Parcel

Visit Date: 5/17/2019 Start Time: 23:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Fence_install,Sign_install,Dump_cleanup,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Gate and fence installed today on East side.

Notes: CLC project to start grading at some point on West 1/3 of parcel.

Management Actions Completed:

Date: 3/25/2019 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Weed whack invasive species.

Notes/Comments:

Date: 4/2/2019 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species and weed whack.

Notes/Comments:

Date: 4/5/2019 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species, trash pickup and weed whack.

Notes/Comments:

Date: 4/15/2019 Completed by: Jason Allen

Contractor (if applicable) Greenbrier Landscape

Management Actions Completed: Crew picked up trash.

Notes/Comments:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Clayton_Parcel

Date: 4/15/2019 **Completed by:** Jason Allen, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Mowed, weed whacked and applied herbicide to invasive species and picked up trash.

Notes/Comments:

Date: 4/17/2019 **Completed by:** Jason Allen, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Mowed and applied herbicide to invasive species. Installed regulations sign and temporary fence.

Notes/Comments:

Date: 4/19/2019 **Completed by:** Jason Allen, Ninfa Nigrete

Contractor (if applicable)

Management Actions Completed: Install regulations sign and temporary fence/gate.

Notes/Comments:

Date: 5/6/2019 **Completed by:** Jason Allen

Contractor (if applicable)

Management Actions Completed: Install 3 regulations signs and temporary fence/gate. Weed whack invasive species.

Notes/Comments:

Date: 5/16/2019 **Completed by:** Jason Allen

Contractor (if applicable) South Bay Fence

Management Actions Completed: Contractor installed t-post and wire fence and swing gate.

Notes/Comments:

Date: 5/17/2019 **Completed by:** Jason Allen

Contractor (if applicable) South Bay Fence

Management Actions Completed: Contractor installed t-post and wire fence and swing gate.

Notes/Comments:

Clayton Parcel

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 12/11/2018
- Photo description: Illegal off-road vehicles driving through vernal pools.



- Photo taken: 1/31/2019
- Photo description: Trash/debris onsite.

Clayton Parcel

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/12/2019
- Photo description: Trash/debris onsite.



- Photo taken: 3/25/2019
- Photo description: Illegal off-road vehicles driving through vernal pools.

Clayton Parcel

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/25/2019
- Photo description: Invasive weeds and grasses creating thick thatch layer smothering vernal pool complex.



- Photo taken: 3/25/2019
- Photo description: Invasive weeds and grasses weed whacked for removal.

Clayton Parcel

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/15/2019
- Photo description: Tractor mower dethatching vernal pool complex buffer areas.



- Photo taken: 4/15/2019
- Photo description: Tractor mower dethatching vernal pool buffer areas. Trash/debris onsite.

Clayton Parcel

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/15/2019
- Photo description: Contracted crew removing trash/debris.



- Photo taken: 4/15/2019
- Photo description: Contracted crew removing trash/debris.

Clayton Parcel

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/15/2019
- Photo description: Herbicide application to invasive plants in vernal pool complex.



- Photo taken: 4/15/2019
- Photo description: Trash/debris previously covered by thick thatch layer.

Clayton Parcel

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/6/2019
- Photo description: Temporary fencing and signs installed to restrict illegal off-road access.



- Photo taken: 5/17/2019
- Photo description: Permanent fencing and gate installed to restrict illegal off-road access.

Clayton Parcel

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/30/2019
- Photo description: Adjacent property allowing access onto their property and Clayton parcel.



- Photo taken: 6/18/2019
- Photo description: Worked with property manager to install barricades to restrict illegal off-road access.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Clayton_Parcel

VP_ID: 876

Photopoint X: -117.01827034700

Photopoint Y: 32.57163438250

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 1:51 PM

Survey End Time: 2:08 PM

Surveyors: Jason Allen, Jessie Lane, Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Cryptantha sp. - cryptantha	<1%

Cover of Other Native Species in Basin <1%

Native Species Richness in Basin: 1

Nonnative Species in Pool

Species Name	Cover
Erodium botrys - longbeak stork's bill	1-5%
Erodium cicutarium - redstem stork's bill	<1%
Festuca perennis - Italian rye grass	10-25%
Hordeum marinum - seaside barley	1-5%
Hypochaeris glabra - smooth cat's ear	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lythrum hyssopifolia - hyssop loosestrife	1-5%
Medicago polymorpha - burclover	<1%

Cover of Nonnative Species in Basin: 25-50%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Clayton_Parcel

VP_ID: 876

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Atriplex semibaccata - Australian saltbush
Avena barbata - slender oat
Baccharis sarothroides - desertbroom
Bromus diandrus - ripgut brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Medicago polymorpha - burclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass

Notes/Comments: None

Clayton Parcel

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 876



Photo taken: 5/14/2019

Photo location is -117.01827034700, 32.57163438250 NAD83 State Plane California Zone 6 (feet)

Crescent Heights

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Crescent_Heights

Planning Unit: North

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/4/2019 Start Time: 1:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects: Ongoing

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Fencerepair, Weedcontrol, Trash_pickup, Grading_recontouring, Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Weeds erodium, grasses. pics of lopez ridge also.

Visit Date: 4/3/2019 Start Time: 4:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol, RestReveg, Sign_install, Trash_pickup, Fencerepair, Grading_recontouring, Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed control maybe or Pardee?

Notes: Pardee may need have ownership do maintenance is on them. Some grasses and weeds present.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Crescent_Heights

Visit Date: 6/28/2019 Start Time: 17:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: >16 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: RestReveg, Weedcontrol, Grading_recontouring, Regular patrols recommended

Other Management Needs:

Additional Management Actions Recommended: Pardee still hasnt fully turned over pools.

Notes: Pulled stinkwort out by hand on West side, East side had stinkwort also needs to be sprayed. Mel rep near gate entrance and african daisy.

Management Actions Completed:

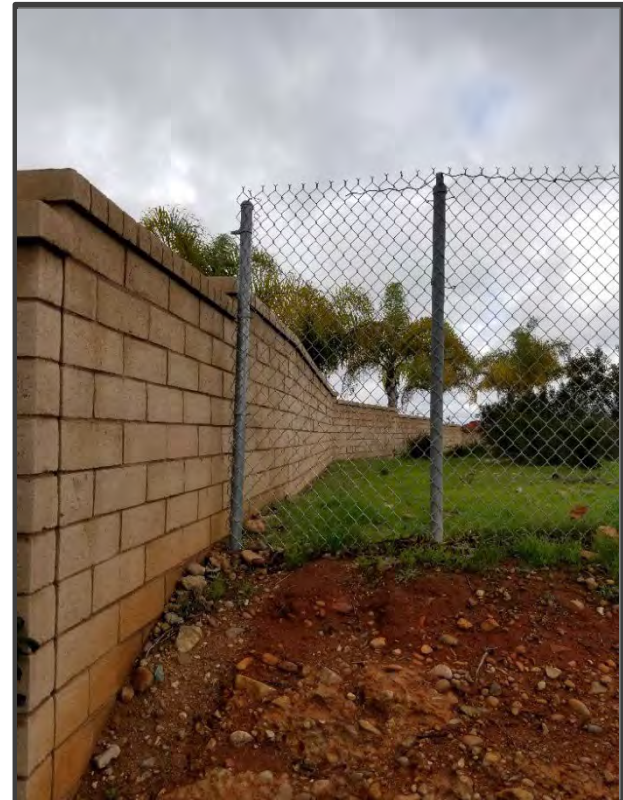
Crescent Heights

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/24/2018
- Photo description: Fence section missing.



- Photo taken: 2/4/2019
- Photo description: Fence repaired to deter illegal trespass.

Crescent Heights

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/4/2019
- Photo description: Inundated vernal pool in old road rut.



- Photo taken: 2/4/2019
- Photo description: Trash/debris onsite.

Crescent Heights

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/3/2019
- Photo description: Invasive species – nonnative grasses present in vernal pool and upland buffer areas.



- Photo taken: 4/3/2019
- Photo description: Trash/debris onsite.

Crescent Heights

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 6/28/2019
- Photo description: Invasive species – nonnative grasses present in vernal pool and upland buffer areas.



- Photo taken: 6/28/2019
- Photo description: Invasive plant - Stinkwort (*Dittrichia graveolens*) found onsite and hand pulled.

Del Mar Mesa

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Del_Mar_Mesa_City

Planning Unit: North City or Other? City

Managing Department: Park_Recreation & Public Util

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/4/2019 Start Time: 5:30:00

Surveyors: Rob Wheeler, Diana Brand, Jessie Lane

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer:

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Fencerepair,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes:

Visit Date: 1/25/2019 Start Time: 4:30:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Present

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool:

Damage from Edge Effects:

Invasive Species in Buffer:

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Fencerepair,Sign_replacement

Other Management Needs:

Additional Management Actions Recommended:

Notes: Wooden planks removed from fence; mountain bike tracks observed in pools.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Del_Mar_Mesa_City

Visit Date: 3/14/2019 Start Time: 10:00:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool:

Damage from Edge Effects:

Invasive Species in Buffer:

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Fencerepair,Sign_install

Other Management Needs:

Additional Management Actions Recommended:

Notes: Mountain bike trails through pool.

Visit Date: 3/21/2019 Start Time: 22:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fencerepair,Sign_replacement,Trash_pickup,Grading_recontouring,
Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Fence repair, weed control.

Notes: Unmapped road pools.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Del_Mar_Mesa_City

Visit Date: 5/31/2019 Start Time: 10:15:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?
Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Tresspass/Unauthorized Use: Ongoing
Damage to Fences and/or Signs: Ongoing Fire or Damage from Fire Suppression:
Invasive Species in Pool: Damage from Edge Effects:
Invasive Species in Buffer: Hydrological Impacts:
Other issues observed:
Are other issues observed is new or ongoing?

Management Needs: Fencerepair,Sign_replacement,Grading_recontouring

Other Management Needs:

Additional Management Actions Recommended:

Notes:

Visit Date: 5/31/2019 Start Time: 6:30:00

Surveyors: Jason Allen, Mark Berninger, Diana Brand, Jessie Lane

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent
Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing Tresspass/Unauthorized Use:
Damage to Fences and/or Signs: Fire or Damage from Fire Suppression:
Invasive Species in Pool: Ongoing Damage from Edge Effects:
Invasive Species in Buffer: Ongoing Hydrological Impacts:
Other issues observed:
Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Regularpatrolsrecommended,Trash_pickup,Fencerepair,Gaterepair,Sign_replacement,RestReveg

Other Management Needs:

Additional Management Actions Recommended: Trash pickup, weed maintenance.

Notes: Fence/sign maintenance needed.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Del_Mar_Mesa_City

Management Actions Completed:

Date: 1/23/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Repair fence.

Notes/Comments:

Date: 3/21/2019 **Completed by:** Melanie Fontana

Contractor (if applicable)

Management Actions Completed: Hand-pulled invasive plants

Notes/Comments:

Date: 4/5/2019 **Completed by:** Melanie Fontana, Gina Washington, Volunteers

Contractor (if applicable)

Management Actions Completed: Install fencing and brush to block access.

Notes/Comments:

Date: 4/19/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Repair fencing and brush blocking access.

Notes/Comments:

Date: 4/24/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Repair fencing and brush blocking access.

Notes/Comments:

Date: 5/8/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Repair and extend fencing and brush blocking access.

Notes/Comments:

Date: 5/14/2019 **Completed by:** Lisa Wood, Mike Kelly, Brian Swanson

Contractor (if applicable)

Management Actions Completed: Hand-pulled invasive plants

Notes/Comments: Very minor - site in good shape.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Del_Mar_Mesa_City

Date: 5/17/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Repair and extend fencing and brush blocking access.

Notes/Comments:

Date: 5/25/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Repair and extend fencing and brush blocking access.

Notes/Comments:

Date: 5/29/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Install or replace closure signs. Repair and extend fencing and brush blocking access. Repair rock barrier.

Notes/Comments:

Date: 6/3/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Repair and extend fencing and brush blocking access. Educate and enforce closures.

Notes/Comments:

Date: 6/8/2019 **Completed by:** Melanie Fontana, Volunteers

Contractor (if applicable)

Management Actions Completed: Repair and extend fencing and brush blocking access. Educate and enforce closures.

Notes/Comments:

Del Mar Mesa (PUD)

Management Monitoring Photos

These photos represent issues noted during management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: March 14, 2019
- Photo description: View of vernal pool with bike tracks within it. View west



- Photo taken: January 25, 2019
- Photo description: View of fence with missing planks allowing for unauthorized bike and pedestrian access. View northeast

Del Mar Mesa

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/21/2019
- Photo description: Fence and branches used to block old access road that has vernal pools.



- Photo taken: 3/21/2019
- Photo description: Fence preventing illegal access broken.

Del Mar Mesa

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/21/2019
- Photo description: Illegal off-road tracks through trail vernal pool.



- Photo taken: 3/21/2019
- Photo description: Fence preventing illegal access broken.

Del Mar Mesa

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/21/2019
- Photo description: Trash/debris onsite.



- Photo taken: 5/31/2019
- Photo description: Broken fence temporarily barricaded to prevent illegal access.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1255

Photopoint X: -117.16229935200

Photopoint Y: 32.94828019670

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 25.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/31/2019

Survey Start Time: 12:39 PM

Survey End Time: 1:13 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Bloomeria sp. - goldenstar	<1%
Crassula connata - sand pygmyweed	<1%
Deinandra fasciculata - clustered tarweed	25-50%
Deschampsia danthonioides - annual hairgrass	<1%
Navarretia hamata - hooked pincushionplant	1-5%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Selaginella cinerascens - mesa spikemoss	1-5%
Sisyrinchium bellum - Western blue-eyed grass	<1%
Stipa lepida - foothill needlegrass	<1%
Zeltnera venusta - charming centauray	25-50%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 12

Nonnative Species in Pool

Species Name	Cover
Festuca myuros - rattail sixweeks grass	<1%
Gastridium phleoides - nit grass	<1%

Cover of Nonnative Species in Basin: <1% Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1255

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acemisson glaber - deerweed
Adenostoma fasciculatum - chamise
Bloomeria sp. - goldenstar
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Chlorogalum parviflorum - smallflower soap plant
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Eriogonum elongatum - longstem buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Gastidium phleoides - nit grass
Geranium carolinianum - Carolina geranium
Myosurus minimus - little mouse tail
Navarretia hamata - hooked pincushionplant
Polypogon monspeliensis - annual rabbitsfoot grass
Psilocarphus brevissimus - woolly marble
Quercus dumosa - Nuttall's scrub oak
Rhus integrifolia - lemonade berry
Selaginella cinerascens - mesa spikemoss
Stipa lepida - foothill needlegrass
Uropappus lindleyi - silver puffs
Zeltnera venusta - charming centaury

Notes/Comments: None

Del Mar Mesa

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1255



Photo taken: 5/31/2019

Photo location is -117.16229935200, 32.94828019670 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1260

Photopoint X: -117.16253411000

Photopoint Y: 32.94855410090

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 30.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/31/2019

Survey Start Time: 12:42 PM

Survey End Time: 1:08 PM

Surveyors: Mark Berninger, Diana Brand-Ramirez

VPHCP Covered Species Present: ERAR,POAB

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin <1%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	1-5%
Eleocharis macrostachya - common spikerush	1-5%
Juncus bufonius - toad rush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	1-5%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 8

Nonnative Species in Pool

Species Name	Cover
Gastridium phleoides - nit grass	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1260

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Apiastrum angustifolium - mock parsley
Artemisia californica - coastal sagebrush
Bloomeria sp. - goldenstar
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Chlorogalum parviflorum - smallflower soap plant
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Gastridium phleoides - nit grass
Heteromeles arbutifolia - toyon
Juncus bufonius - toad rush
Navarretia hamata - hooked pincushionplant
Opuntia littoralis - coastal pricklypear
Pseudognaphalium sp. - cudweed
Psilocarphus tenellus - short woollyheads
Quercus dumosa - Nuttall's scrub oak
Rhus integrifolia - lemonade berry
Salvia mellifera - black sage
Sisyrinchium bellum - Western blue-eyed grass
Stipa lepida - foothill needlegrass
Stipa pulchra - purple needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Del Mar Mesa

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1260



Photo taken: 5/31/2019

Photo location is -117.16253411000, 32.94855410090 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1264

Photopoint X: -117.16678602000

Photopoint Y: 32.95107186890

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 15.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/31/2019

Survey Start Time: 9:46 AM

Survey End Time: 10:22 AM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Crassula aquatica - Aquatic pygmy weed	1-5%
Crassula connata - sand pygmyweed	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	1-5%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Selaginella cinerascens - mesa spikemoss	<1%
Zeltnera venusta - charming centauray	<1%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 13

Nonnative Species in Pool

Species Name	Cover
Festuca myuros - rattail sixweeks grass	1-5%
Gastridium phleoides - nit grass	<1%

Cover of Nonnative Species in Basin: 1-5% Nonnative Species Richness in Basin: 2

Bare Ground Cover in Basin 5-10% Cover of Rocks/Cobble in Basin: 25-50% Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1264

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Eleocharis macrostachya - common spikerush
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Juncus bufonius - toad rush
Lythrum hyssopifolia - hyssop loosestrife
Navarretia hamata - hooked pincushionplant
Psilocarphus tenellus - short woollyheads
Quercus dumosa - Nuttall's scrub oak
Rhus integrifolia - lemonade berry
Selaginella cinerascens - mesa spikemoss
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Del Mar Mesa

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1264



Photo taken: 5/31/2019

Photo location is -117.16678602000, 32.95107186890 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1272

Photopoint X: -117.16735599900

Photopoint Y: 32.95125943050

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 10.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/31/2019

Survey Start Time: 10:31 AM

Survey End Time: 11:17 AM

Surveyors: Jason Allen, Mark Berninger, Jessie Lane, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Adenostoma fasciculatum - chamise	<1%
Callitriche marginata - California water starwort	<1%
Crassula aquatica - Aquatic pygmy weed	<1%
Crassula connata - sand pygmyweed	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Juncus bufonius - toad rush	<1%
Juncus effusus - bog rush	1-5%
Navarretia hamata - hooked pincushionplant	1-5%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Selaginella cinerascens - mesa spikemoss	<1%
Stipa lepida - foothill needlegrass	<1%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 15

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Festuca myuros - rattail sixweeks grass	<1%
Gastidium phleoides - nit grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%

Cover of Nonnative Species in Basin: 1-5% Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 10-25% Cover of Rocks/Cobble in Basin: 25-50% Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1272

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Acmispon micranthus - small flowered lotus
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Avena sp. - oat
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Centaurea melitensis - Maltese star-thistle
Chlorogalum parviflorum - smallflower soap plant
Chorizanthe polygonoides - knotweed spineflower
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Eriogonum elongatum - longstem buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Gastroidium phleoides - nit grass
Hedypnois cretica - Cretanweed
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Juncus effusus - bog rush
Logfia gallica - narrowleaf cottonrose
Myosurus minimus - little mouse tail
Navarretia hamata - hooked pincushionplant
Psilocarphus brevissimus - woolly marble
Quercus dumosa - Nuttall's scrub oak
Rhus integrifolia - lemonade berry
Stephanomeria exigua - small wirelettuce
Stipa lepida - foothill needlegrass
Stipa pulchra - purple needlegrass
Uropappus lindleyi - silver puffs
Xylococcus bicolor - mission manzanita
Yucca schidigera - Mojave yucca
Zeltnera venusta - charming centaury

Notes/Comments: None

Del Mar Mesa

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1272



Photo taken: 5/31/2019

Photo location is -117.16735599900, 32.95125943050 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1275

Photopoint X: 0.000000000000

Photopoint Y: 0.000000000000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 15.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 9:36 AM

Survey End Time:

Surveyors: Lisa Wood, Mike Kelly, Brian Swanson

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Navarretia hamata - hooked pincushionplant	<1%
Selaginella cinerascens - mesa spikemoss	<1%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 4

Nonnative Species in Pool

Cover of Nonnative Species in Basin: 0

Nonnative Species Richness in Basin: 0

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1275

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Calochortus splendens - splendid mariposa lily
Deinandra fasciculata - clustered tarweed
Eryngium aristulatum var. parishii - San Diego button celery
Quercus berberidifolia - scrub oak
Rhus integrifolia - lemonade berry
Selaginella cinerascens - mesa spikemoss
Zeltnera venusta - charming centaury

Notes/Comments: First pool after krail

Del Mar Mesa

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1275



Photo taken: 5/31/2019
Photo location is not available

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1842

Photopoint X: -117.16633286200

Photopoint Y: 32.94482095060

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 15.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/31/2019

Survey Start Time: 1:48 PM

Survey End Time: 2:12 PM

Surveyors: Jason Allen, Jessie Lane, Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: POAB,ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 1-5%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Cuscuta occidentalis - chaparral dodder	<1%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Juncus bufonius - toad rush	<1%
Lasthenia coronaria - royal goldfields	<1%
Myosurus minimus - little mouse tail	<1%
Navarretia hamata - hooked pincushionplant	<1%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	<1%
Psilocarphus tenellus - short woollyheads	<1%
Selaginella cinerascens - mesa spikemoss	<1%
Zeltnera venusta - charming centauray	<1%

Cover of Other Native Species in Basin 1-5%

Native Species Richness in Basin: 14

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Festuca myuros - rattleail sixweeks grass	<1%
Gastrium phleoides - nit grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 1842

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Adolphia californica - California adolphia
Antirrhinum nuttallianum - Nuttall's snapdragon
Avena sp. - oat
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Camissoniopsis sp. - suncups
Centaurea melitensis - Maltese star-thistle
Chlorogalum parviflorum - smallflower soap plant
Cneoridium dumosum - bush rue
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Eriophyllum confertiflorum - golden yarrow
Heteromeles arbutifolia - toyon
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lasthenia coronaria - royal goldfields
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Lythrum hyssopifolia - hyssop loosestrife
Malosma laurina - laurel sumac
Marah macrocarpus - Cucamonga manroot
Navarretia hamata - hooked pincushionplant
Osmadenia tenella - false rosinweed
Pentagramma triangularis - goldbeck fern
Pseudognaphalium beneolens - cudweed
Pseudognaphalium sp. - cudweed
Salvia mellifera - black sage
Selaginella cinerascens - mesa spikemoss
Toxicoscordion fremontii - Fremont's star lily
Uropappus lindleyi - silver puffs
Xylococcus bicolor - mission manzanita
Zeltnera venusta - charming centaury

Notes/Comments: None

Del Mar Mesa

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1842



Photo taken: 5/31/2019

Photo location is -117.16633286200, 32.94482095060 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 2468

Photopoint X: -117.16940824700

Photopoint Y: 32.95191682820

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/31/2019

Survey Start Time: 9:44 AM

Survey End Time: 10:12 AM

Surveyors: Mark Berninger, Diana Brand-Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Adenostoma fasciculatum - chamise	<1%
Deinandra fasciculata - clustered tarweed	<1%
Navarretia hamata - hooked pincushionplant	<1%
Selaginella cinerascens - mesa spikemoss	<1%

Cover of Other Native Species in Basin 1-5%

Native Species Richness in Basin: 5

Nonnative Species in Pool

Cover of Nonnative Species in Basin: 0

Nonnative Species Richness in Basin: 0

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Del_Mar_Mesa_City

VP_ID: 2468

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Adenostoma fasciculatum - chamise
Artemisia californica - coastal sagebrush
Chlorogalum parviflorum - smallflower soap plant
Cneoridium dumosum - bush rue
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Pseudognaphalium sp. - cudweed
Quercus dumosa - Nuttall's scrub oak
Rhus integrifolia - lemonade berry
Selaginella cinerascens - mesa spikemoss
Unknown - grass
Zeltnera venusta - charming centaury

Notes/Comments: None

Del Mar Mesa

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 2468



Photo taken: 5/31/2019

Photo location is -117.16940824700, 32.95191682820 NAD83 State Plane California Zone 6 (feet)

Goat Mesa

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Public Utilities

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Goat_Mesa

Planning Unit: South

City or Other? City

Managing Department: Pubic_Uilities

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/7/2019 Start Time: 7:30:00

Surveyors: Cheryl Jenkins, Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Upcoming weed management.

Notes:

Visit Date: 4/2/2019 Start Time: 13:32:00

Surveyors: Cheryl Jenkins, Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: >16 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching

Other Management Needs:

Additional Management Actions Recommended: Habitat restoration occurring in Park and Rec lands adjacent to site.

Notes: Large lower pool has a lot of weeds in it; upper pool area has a lot of erodium mixed with natives in the upland areas. Some pools still slightly inundated with tree frog and spadefoot tadpoles.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Goat_Mesa

Visit Date: 4/29/2019 **Start Time:** 8:30:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: no **Days Since Last Rain:** >16 **Fairy Shrimp Visible?**

Listed Plants Visible? Present **Listed Plants:**

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching

Other Management Needs:

Additional Management Actions Recommended: Some weed control being done by park and rec.

Notes: Road coming in could use maintenance (veg trimming and fill of eroded ruts).

Management Actions Completed:

Goat Mesa

Management Monitoring Photos

These photos represent issues noted during management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: April 2, 2019
- Photo description: View of vernal pool with weeds along the perimeter. View north



- Photo taken: April 29, 2019
- Photo description: View of upper Goat Mesa vernal pool area with carpet of erodium and ice plant. View east

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Goat_Mesa

VP_ID: 2642

Photopoint X: -116.999890000000

Photopoint Y: 32.551957000000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 5.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 4/29/2019

Survey Start Time: 8:30 AM

Survey End Time: 8:57 AM

Surveyors: Kayo Valenti and JR Sundberg, RECON: Cheryl Jenkins, City

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	10-25%
Lepidium nitidum - shining pepperweed	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	10-25%
Lysimachia arvensis - scarlet pimpernel	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 3

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: 1-5%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: Erodium is dying but counted as this season cover

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Goat_Mesa

VP_ID: 2642

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Deinandra fasciculata - clustered tarweed
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Lysimachia arvensis - scarlet pimpernel
Plantago erecta - California plantain
Psilocarphus brevissimus - woolly marble
Salsola tragus - prickly Russian thistle
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba

Notes/Comments: Did not likely pond for a substantial amount of time

Greystone Torrey Highlands

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Greystone_Torrey_Highlands

Planning Unit: North

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/4/2019 Start Time: 6:30:00

Surveyors: Rob Wheeler, Diana Brand, Jessie Lane

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Wrong_Tim Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol

Other Management Needs:

Additional Management Actions Recommended:

Notes: Non native grasses, thistle, erodium

Visit Date: 2/12/2019 Start Time: 4:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed management soon.

Notes: Weeds sonchus, erodium, grasses.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Greystone_Torrey_Highlands

Visit Date: 3/28/2019 Start Time: 1:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed control visit occurred 3/28/19.

Notes: Small stinkwort, sonchus, tocolote, erodium.

Visit Date: 5/3/2019 Start Time: 16:30:00

Surveyors: Jason Allen, Sara Allen, Mark Berninger

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed control soon.

Notes: Dit Gra seedlings present.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Greystone_Torrey_Highlands

Management Actions Completed:

Date: 10/9/2018 **Completed by:** Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 3/28/2019 **Completed by:** Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 6/28/2019 **Completed by:** Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Greystone Torrey Highlands

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/12/2019
- Photo description: Inundated vernal pool with non-native grasses in buffer zone.



- Photo taken: 5/31/2019
- Photo description: Invasive plant – Stinkwort (*Dittrichia graveolens*) present in vernal pool complex.

Greystone Torrey Highlands

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/31/2019
- Photo description: Large dead plant material in vernal pool.



- Photo taken: 6/28/2019
- Photo description: Invasive plant – Stinkwort (*Dittrichia graveolens*) present in vernal pool complex.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Greystone_Torrey_Highlands

VP_ID: 1177

Photopoint X: -117.15222222000

Photopoint Y: 32.96055556000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 3.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/3/2019

Survey Start Time: 9:55 AM

Survey End Time: 11:02 AM

Surveyors: Jason Allen, Mark Berninger, Sara Allen

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 25-50%

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	1-5%
Isocoma menziesii - Menzies' goldenbush	<1%
Juncus bufonius - toad rush	1-5%
Opuntia littoralis - coastal pricklypear	<1%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Dittrichia graveolens	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	1-5%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Greystone_Torrey_Highlands

VP_ID: 1177

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Acmispon micranthus - small flowered lotus
Amsinckia intermedia - common fiddleneck
Artemisia californica - coastal sagebrush
Baccharis pilularis - coyotebrush
Baccharis sarothroides - desertbroom
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dittrichia graveolens - Stinkwort
Eleocharis macrostachya - common spikerush
Encelia californica - California brittlebush
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eriophyllum confertiflorum - golden yarrow
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Geranium californicum - California geranium
Heteromeles arbutifolia - toyon
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lactuca serriola - prickly lettuce
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Lythrum hyssopifolia - hyssop loosestrife
Navarretia hamata - hooked pincushionplant
Opuntia littoralis - coastal pricklypear
Plagiobothrys sp. - popcornflower
Pogogyne abramsii - San Diego mesa mint
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Quercus sp. - oak
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster
Stipa pulchra - purple needlegrass
Unknown - grass
Yucca schidigera - Mojave yucca
Zeltnera venusta - charming centaury

Notes/Comments: Changed survey pool to a pool that contained both covered species in 2003

Greystone Torrey Highlands

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 1177



Photo taken: 5/3/2019

Photo location is -117.15222222, 32.96055556 NAD83 State Plane California Zone 6 (feet) Photos

Hidden Trails

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Hidden_Trails

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/31/2019 Start Time: 20:30:00

Surveyors: Jason Allen, Jessie Lane

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Add_replace_lock,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed management scheduled for Feb

Notes: Branchinecta sp. and tadpoles found in pools 2590, 2594, 2593

Visit Date: 3/28/2019 Start Time: 0:30:00

Surveyors: Sara Allen, Jessie Lane, Diana Brand Ramirez

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol

Other Management Needs:

Additional Management Actions Recommended: Weed maintenance visit

Notes: Sonchus growing in pools and few nonnative iceplant, chysanthemum, and grasses in buffer.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Hidden_Trails

Visit Date: 5/30/2019 Start Time: 5:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed control for ice plant.

Notes: Ice plant on mima mounds.

Management Actions Completed:

Date: 4/17/2019 Completed by: Jason Allen, Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 6/18/2019 Completed by: Jason Allen, Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Hidden Trails

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/8/2019
- Photo description: Invasive species – crown daisy (*Glebionis coronaria*) present in vernal pool and upland buffer areas.



- Photo taken: 4/8/2019
- Photo description: Crown daisy (*Glebionis coronaria*) weed whacked down in vernal pool and upland buffer areas.

Hidden Trails

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/17/2019
- Photo description: Invasive plant – Crystalline ice plant (*Mesembryanthemum sp.*) in upland buffer areas around vernal pools.



- Photo taken: 5/30/2019
- Photo description: Herbicide application to invasive crystalline ice plant (*Mesembryanthemum sp.*) present in vernal pool and upland buffer areas during a previous visit.

Hidden Trails

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 1/31/2019
- Photo description: Trash/debris found onsite and removed.



- Photo taken: 4/17/2019
- Photo description: Herbicide application to invasive plants in vernal pool complex.

Kelton

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Kelton

Planning Unit: North

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/28/2019 Start Time: 7:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Grading_recontouring,Regularpatrolsrecommended,Trash_pickup,Dump_cleanup

Other Management Needs:

Additional Management Actions Recommended: Weed management

Notes: No mgmt level listed.

Visit Date: 6/25/2019 Start Time: 9:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool:

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Sign_install,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Pickup trash and weed whack if time allows. Install signs.

Notes: No management actions required per VPHCP.

Kelton

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/28/2019
- Photo description: Invasive plants in upland vernal pool buffer.



- Photo taken: 2/28/2019
- Photo description: Invasive plants in upland vernal pool buffer. Pools did not inundate.

Kelton

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 6/25/2019
- Photo description: Native plants surrounding vernal pools. Pools did not inundate.



- Photo taken: 6/25/2019
- Photo description: Fence protecting vernal pools.

Kelton

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 6/25/2019
- Photo description: Sign vandalized.

Lopez Ridge

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Environmental Services

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Lopez_Ridge

Planning Unit: North City or Other? City

Managing Department: Environmental_Services

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/9/2019 Start Time: 1:30:00

Surveyors: Jane Fajardo, Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Wrong_Tim Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: New

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Add_replace_lock,Regularpatrolsrecommended,Weedcontrol,Fencerepair,Trash_pickup

Other Management Needs:

Additional Management Actions Recommended:

Notes: Large canine foot prints in some pools. Lock was cut again at gate off Calle Cristobal.

Visit Date: 1/30/2019 Start Time: 2:30:00

Surveyors: Jane-Marie Fajardo

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool:

Damage from Edge Effects:

Invasive Species in Buffer:

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs:

Other Management Needs:

Additional Management Actions Recommended:

Notes:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Lopez_Ridge

Visit Date: 4/22/2019 **Start Time:** 3:30:00

Surveyors: Jason Allen & Jane Fajardo

Site Conditions:

Ponded Water: no **Days Since Last Rain:** 6-15 **Fairy Shrimp Visible?**

Listed Plants Visible? Present **Listed Plants:**

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: New

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol

Other Management Needs:

Additional Management Actions Recommended:

Notes:

Management Actions Completed:

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Lopez_Ridge

VP_ID: 706

Photopoint X: -117.17333333333

Photopoint Y: 32.91916666667

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 2.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/22/2019

Survey Start Time: 9:44 AM

Survey End Time: 9:49 AM

Surveyors: Jason Allen, Sara Allen, Ninfa Negrete & Jane-Marie Fajardo

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Allium haematochiton - redskin onion	1-5%
Bloomeria clevelandii - San Diego goldenstar	<1%
Brodiaea orcuttii - Orcutt's brodiaea	5-10%
Callitriche marginata - California water starwort	5-10%
Castilleja exserta - exserted Indian paintbrush	<1%
Crassula aquatica - Aquatic pygmy weed	5-10%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Downingia cuspidata - Toothed downingia	1-5%
Juncus bufonius - toad rush	1-5%
Lasthenia gracilis - needle goldfields	<1%
Muilla maritima - sea muilla	<1%
Navarretia hamata - hooked pincushionplant	1-5%
Opuntia oricola - chaparral pricklypear	<1%
Pogogyne abramsii - San Diego mesa mint	5-10%
Psilocarphus brevissimus - woolly marble	25-50%
Selaginella cinerascens - mesa spikemoss	<1%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 18

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Festuca myuros - rattle sixweeks grass	<1%
Gastridium phleoides - nit grass	<1%
Hordeum marinum - seaside barley	1-5%
Hypochaeris glabra - smooth cat's ear	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Unknown grass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 6-15

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Lopez_Ridge

VP_ID: 706

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Allium haematochiton - redskin onion
Antirrhinum nuttallianum - Nuttall's snapdragon
Apiastrum angustifolium - mock parsley
Avena barbata - slender oat
Bloomeria clevelandii - San Diego goldenstar
Brodiaea orcuttii - Orcutt's brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Callitriche marginata - California water starwort
Castilleja exserta - exserted Indian paintbrush
Centaurea melitensis - Maltese star-thistle
Chlorogalum pomeridianum - soap plant
Clarkia purpurea - winecup clarkia
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Dodecatheon clevelandii - padre's shootingstar
Downingia cuspidata - Toothed downingia
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Galium angustifolium - narrowleaf bedstraw
Hedypnois cretica - Cretanweed
Helianthemum scoparium - Bisbee peak rushrose
Hypochaeris glabra - smooth cat's ear
Lasthenia gracilis - needle goldfields
Logfia gallica - narrowleaf cottonrose
Lupinus bicolor - annual lupine
Lysimachia arvensis - scarlet pimpernel
Lythrum hyssopifolia - hyssop loosestrife
Malosma laurina - laurel sumac
Marah macrocarpus - Cucamonga manroot
Muilla maritima - sea muilla
Navarretia hamata - hooked pincushionplant
Opuntia oricola - chaparral pricklypear
Osmadenia tenella - false rosinweed
Pentachaeta aurea - golden
Pogogyne abramsii - San Diego mesa mint
Pseudognaphalium californicum - ladies' tobacco
Psilocarphus tenellus - short woollyheads
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Stephanomeria sp. -

Lopez Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 706



Photo taken:

Photo location is 32.9191667, -117.1733333 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Lopez_Ridge

VP_ID: 712

Photopoint X: -117.17306963889

Photopoint Y: 32.91993094444

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 1.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/22/2019

Survey Start Time: 11:39 AM

Survey End Time: 2:12 PM

Surveyors: Jason Allen, Sara Allen & Jane-Marie Fajardo

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 1-5%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Callitriche marginata - California water starwort	1-5%
Castilleja exserta - exserted Indian paintbrush	<1%
Chlorogalum sp. - soap plant	<1%
Crassula aquatica - Aquatic pygmy weed	<1%
Crassula connata - sand pygmyweed	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Juncus bufonius - toad rush	1-5%
Muilla maritima - sea muilla	<1%
Navarretia hamata - hooked pincushionplant	5-10%
Osmadenia tenella - false rosinweed	<1%
Pentachaeta aurea - golden	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Psilocarphus tenellus - short woollyheads	<1%
Selaginella bigelovii - Bigelow's spike moss	<1%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 18

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Festuca myuros - rattle sixweeks grass	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 6-15

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Lopez_Ridge

VP_ID: 712

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Acmispon micranthus - small flowered lotus
Adenostoma fasciculatum - chamise
Avena barbata - slender oat
Bromus madritensis - compact brome
Castilleja exserta - exserted Indian paintbrush
Ceanothus tomentosus - woolyleaf ceanothus
Centaurea melitensis - Maltese star-thistle
Chlorogalum parviflorum - smallflower soap plant
Clarkia purpurea - winecup clarkia
Crassula connata - sand pygmyweed
Cryptantha sp. - cryptantha
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Erodium botrys - longbeak stork's bill
Euphorbia peplus - petty spurge
Festuca myuros - rattail sixweeks grass
Galium angustifolium - narrowleaf bedstraw
Helianthemum scoparium - Bisbee peak rushrose
Hypochaeris glabra - smooth cat's ear
Logfia filaginoides - California cottonrose
Malosma laurina - laurel sumac
Muilla maritima - sea muilla
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Osmadenia tenella - false rosinweed
Pentachaeta aurea - golden
Selaginella bigelovii - Bigelow's spike moss
Silene gallica - common catchfly
Sisyrinchium bellum - Western blue-eyed grass
Sonchus sp. - sow thistle
Stipa lepida - foothill needlegrass
Uropappus lindleyi - silver puffs
Xylococcus bicolor - mission manzanita
Zeltnera venusta - charming centaury

Notes/Comments:

Lopez Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 712



Photo taken:

Photo location is 32.91993094, -117.1730696389 NAD83 State Plane California Zone 6 (feet)

Marron Valley

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Public Utilities

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Marron_Valley

Planning Unit: South City or Other? City

Managing Department: Pubic_Uilities

Baseline Management and Monitoring Level: VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 3/20/2019 Start Time: 11:05:00

Surveyors: Cheryl Jenkins, Cindy Dunn

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Absent

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,Fencerepair,Fence_install,Sign_install,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Plans to install/repair fences around pools discussed with long range planning.

Notes: Water in creek crossing high, high clearance 4wd vehicle needed to cross to vp area.

Visit Date: 6/10/2019 Start Time: 12:05:00

Surveyors: Cheryl Jenkins, Cindy Dunn

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,Fencerepair,Sign_replacement,Fence_install,Sign_install

Other Management Needs:

Additional Management Actions Recommended: Repair of fencing around pools scheduled for FY2020

Notes:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Marron_Valley

Visit Date: 12/14/2019 Start Time: 9:50:00

Surveyors: Cheryl Jenkins, Mark Berninger

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Present

Listed Plants Visible? Wrong_Tim Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,Fencerepair,Fence_install,Sign_install,Regularpatrolsrecommended

Other Management Needs: Fences around pools need to be repaired to keep cattle and vehicles out

Additional Management Actions Recommended: Fences around pools need to be repaired to keep cattle and vehicles out

Notes:

Management Actions Completed:

Marron Valley

Management Monitoring Photos

These photos represent issues noted during management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: December 14, 2019
- Photo description: View of fairy shrimp-occupied road-rut vernal pool with tire tracks and cow hoof prints within it due to unauthorized vehicle and grazing cattle access. View southwest



- Photo taken: December 14, 2019
- Photo description: View of damaged fence surrounding vernal pool allowing for access of grazing cattle. View south

Mission Trails Regional Park

Planning Unit: Central

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Mission_Trails_Regional_Park

Planning Unit: Central

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/9/2019 Start Time: 3:30:00

Surveyors: Rob Wheeler, Jessie Lane

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: non native grasses, erodium, thistle, mustard present. Algae blooms in some pools.

Visit Date: 3/29/2019 Start Time: 7:30:00

Surveyors: Jason Allen, Sara Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fencerepair,Sign_install,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed maintenance soon.

Notes: Grasses around pools should be trimmed.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Mission_Trails_Regional_Park

Management Actions Completed:

Date: 9/15/2018 **Completed by:** Andrew Miller

Contractor (if applicable)

Management Actions Completed: Repair fence.

Notes/Comments:

Mission Trails Regional Park

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/27/2019
- Photo description: High water line of vernal pool extends beyond fence boundary.



- Photo taken: 3/29/2019
- Photo description: Old fence posts and rocks within vernal pool buffer.

Mission Trails Regional Park

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 7/12/2019
- Photo description: Invasive species – nonnative grasses present in vernal pool basin and upland buffer areas.



- Photo taken: 7/12/2019
- Photo description: Invasive species weed whacked and removed from vernal pool basin.

Montgomery Field

Planning Unit: Central

Land Owner: City of San Diego

Managing Department: READ - Airports

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Montgomery_Field

Planning Unit: Central City or Other? City

Managing Department: READ_Airports

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/28/2019 Start Time: 20:30:00

Surveyors: Cindy Dunn

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Present

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol

Other Management Needs:

Additional Management Actions Recommended:

Notes:

Visit Date: 3/14/2019 Start Time: 21:30:00

Surveyors: Cindy Dunn

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol

Other Management Needs:

Additional Management Actions Recommended:

Notes:

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Montgomery_Field

Visit Date: 6/7/2019 **Start Time:** 0:30:00

Surveyors: Cindy Dunn

Site Conditions:

Ponded Water: no **Days Since Last Rain:** 6-15 **Fairy Shrimp Visible?**

Listed Plants Visible? Present **Listed Plants:**

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol

Other Management Needs:

Additional Management Actions Recommended:

Notes:

Management Actions Completed:

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 4256

Photopoint X: -117.12734100000

Photopoint Y: 32.81122600000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 1.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/10/2019

Survey Start Time: 9:30 AM

Survey End Time: 11:28 AM

Surveyors: Cindy Dunn, Cheryl Jenkins, Maya Mazon, Rebecca Alvidrez

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin <1%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	1-5%
Callitriche marginata - California water starwort	1-5%
Crassula aquatica - Aquatic pygmy weed	25-50%
Cuscuta sp.	5-10%
Downingia cuspidata - Toothed downingia	25-50%
Elatine brachysprema	1-5%
Eleocharis macrostachya - common spikerush	10-25%
Juncus bufonius - toad rush	1-5%
Myosurus minimus - little mouse tail	10-25%
Phalaris paradoxa - hood canarygrass	<1%
Pilularia americana - American pillwort	25-50%
Plagiobothrys acanthocarpus - adobe popcornflower	1-5%
Plantago elongata - annual coast plantago	1-5%
Psilocarphus brevissimus - woolly marble	5-10%
Trifolium deperatum var. amplexens	<1%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 15

Nonnative Species in Pool

Species Name	Cover
Cotula coronopifolia - common brassbuttons	<1%
Erodium botrys - longbeak stork's bill	<1%
Lythrum hyssopifolia - hyssop loosestrife	1-5%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 3

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: <1%

Cover of Litter in Basin: <1%

Days Since Last Rain 6-15

Ponded Water Present? yes

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 4256

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Artemisia californica - coastal sagebrush
Bloomeria clevelandii - San Diego goldenstar
Brodiaea orcuttii - Orcutt's brodiaea
Bromus madritensis - compact brome
Castilleja densiflora ssp. gracilis - Graceful owl's clover
Chamaesyce maculata - spotted spurge
Chlorogalum parviflorum - smallflower soap plant
Crassula aquatica - Aquatic pygmy weed
Crassula connata - sand pygmyweed
Croton setigerus - dove weed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Distichlis spicata - saltgrass
Downingia cuspidata - Toothed downingia
Eleocharis macrostachya - common spikerush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eschscholzia californica - California poppy
Festuca myuros - rattail sixweeks grass
Galium aparine - common bedstraw
Gastroidium phleoides - nit grass
Hedypnois cretica - Cretanweed
Holocarpha virgata ssp. elongata - Graceful tarplant
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lupinus bicolor - annual lupine
Lythrum hyssopifolia - hyssop loosestrife
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Psilocarphus brevissimus - woolly marble
Silene gallica - common catchfly
Spergularia bocconi - sand spurry
Trifolium depauperatum var. amplexans - Pale sack clover

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 4256



Photo taken:

Photo location is 32.811226, -117.127341 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 4596

Photopoint X: -117.12830600000

Photopoint Y: 32.81119900000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.5	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/22/2019

Survey Start Time: 11:05 AM

Survey End Time: 11:41 AM

Surveyors: Rebecca Alvidrez, Cindy Dunn, Maya Mazon

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 5-10%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	1-5%
Crassula aquatica - Aquatic pygmy weed	10-25%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	1-5%
Downingia cuspidata - Toothed downingia	50-75%
Eleocharis macrostachya - common spikerush	25-50%
Juncus bufonius - toad rush	10-25%
Myosurus minimus - little mouse tail	10-25%
Navarretia hamata - hooked pincushionplant	1-5%
Pilularia americana - American pillwort	10-25%
Psilocarphus brevissimus - woolly marble	25-50%
Psilocarphus tenellus - short woollyheads	1-5%
Trifolium deperatum var. amplexens	1-5%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 14

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	1-5%
Erodium botrys - longbeak stork's bill	5-10%
Gastridium phleoides - nit grass	1-5%
Lythrum hyssopifolia - hyssop loosestrife	1-5%
Silene gallica - common catchfly	<1%

Cover of Nonnative Species in Basin: 10-25% Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 4596

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Artemisia californica - coastal sagebrush
Avena barbata - slender oat
Bloomeria clevelandii - San Diego goldenstar
Brassica nigra - black mustard
Brodiaea orcuttii - Orcutt's brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Ceanothus tomentosus - woolyleaf ceanothus
Cerastium glomeratum - sticky mouseear chickweed
Cotula coronopifolia - common brassbuttons
Crassula connata - sand pygmyweed
Croton setigerus - dove weed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Downingia cuspidata - Toothed downingia
Eleocharis macrostachya - common spikerush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Festuca myuros - rattail sixweeks grass
Galium nuttallii - Climbing bedstraw
Gastroidium phleoides - nit grass
Hedypnois cretica - Cretanweed
Juncus bufonius - toad rush
Logfia gallica - narrowleaf cottonrose
Lupinus bicolor - annual lupine
Lythrum hyssopifolia - hyssop loosestrife
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Pilularia americana - American pillwort
Pogogyne abramsii - San Diego mesa mint
Psilocarphus brevissimus - woolly marble
Silene gallica - common catchfly
Sonchus asper - spiny sowthistle
Uropappus lindleyi - silver puffs

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 4596



Photo taken:

Photo location is 32.811199, -117.128306 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5352

Photopoint X: -117.12685500000

Photopoint Y: 32.81166000000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.5	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/10/2019

Survey Start Time: 9:30 AM

Survey End Time: 12:29 PM

Surveyors: Cindy Dunn, Cheryl Jenkins, Maya Mazon, Rebecca Alvidrez

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 10-25%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	1-5%
Crassula aquatica - Aquatic pygmy weed	25-50%
Downingia cuspidata - Toothed downingia	10-25%
Elatine brachysprema	25-50%
Eleocharis macrostachya - common spikerush	5-10%
Juncus bufonius - toad rush	1-5%
Myosurus minimus - little mouse tail	10-25%
Pilularia americana - American pillwort	25-50%
Plagiobothrys acanthocarpus - adobe popcornflower	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Erodium botrys - longbeak stork's bill	1-5%
Hypochaeris glabra - smooth cat's ear	<1%
Lythrum hyssopifolia - hyssop loosestrife	5-10%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 3

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 6-15

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5352

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Bloomeria clevelandii - San Diego goldenstar
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Castilleja densiflora ssp. gracilis - Graceful owl's clover
Chamaesyce maculata - spotted spurge
Chlorogalum parviflorum - smallflower soap plant
Crassula aquatica - Aquatic pygmy weed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Downingia cuspidata - Toothed downingia
Eleocharis macrostachya - common spikerush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Festuca myuros - rattail sixweeks grass
Galium aparine - common bedstraw
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lythrum hyssopifolia - hyssop loosestrife
Muilla maritima - sea muilla
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Psilocarphus brevissimus - woolly marble
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Spergularia bocconi - sand spurry
Trifolium depauperatum var. amplexens - Pale sack clover

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5352



Photo taken:

Photo location is 32.81166, -117.126855 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5355

Photopoint X: -117.12603200000

Photopoint Y: 32.81247900000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 1.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/22/2019

Survey Start Time: 2:40 PM

Survey End Time: 3:13 PM

Surveyors: Maya Mazon, Rebecca Alvidrez, Cindy Dunn

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 1-5%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	10-25%
Crassula aquatica - Aquatic pygmy weed	1-5%
Crassula connata - sand pygmyweed	1-5%
Deinandra fasciculata - clustered tarweed	25-50%
Deschampsia danthonioides - annual hairgrass	5-10%
Juncus bufonius - toad rush	10-25%
Navarretia hamata - hooked pincushionplant	1-5%
Pilularia americana - American pillwort	25-50%
Plantago erecta - California plantain	1-5%
Psilocarphus brevissimus - woolly marble	25-50%
Psilocarphus tenellus - short woollyheads	1-5%
Selaginella cinerascens - mesa spikemoss	1-5%
Zeltnera venusta - charming centaury	1-5%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 13

Nonnative Species in Pool

Species Name	Cover
Erodium botrys - longbeak stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	5-10%
Gastridium phleoides - nit grass	5-10%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Spergularia bocconi - sand spurry	<1%

Cover of Nonnative Species in Basin: 10-25% Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5355

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Acmispon micranthus - small flowered lotus
Brodiaea orcuttii - Orcutt's brodiaea
Calochortus splendens - splendid mariposa lily
Cotula coronopifolia - common brassbuttons
Crassula connata - sand pygmyweed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Juncus bufonius - toad rush
Muilla maritima - sea muilla
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Plantago elongata - annual coast plantago
Plantago erecta - California plantain
Psilocarphus brevissimus - woolly marble
Selaginella cinerascens - mesa spikemoss

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5355



Photo taken:

Photo location is 32.812479, -117.126032 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5356

Photopoint X: -117.13275600000

Photopoint Y: 32.81915300000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 1.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 9:30 AM

Survey End Time: 9:50 AM

Surveyors: Rebecca Alvidrez, Cindy Dunn, Paula Birdwell

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 10-25%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	1-5%
Crassula aquatica - Aquatic pygmy weed	25-50%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	1-5%
Downingia cuspidata - Toothed downingia	<1%
Juncus bufonius - toad rush	5-10%
Pilularia americana - American pillwort	25-50%
Psilocarphus brevissimus - woolly marble	25-50%
Psilocarphus tenellus - short woollyheads	<1%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Erodium botrys - longbeak stork's bill	5-10%
Lythrum hyssopifolia - hyssop loosestrife	25-50%
Phalaris paradoxa	10-25%
Polypogon monspeliensis - annual rabbitsfoot grass	1-5%

Cover of Nonnative Species in Basin: 50-75% Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5356

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon americanus - American bird's-foot trefoil
Acmispon glaber - deerweed
Avena barbata - slender oat
Baccharis sarothroides - desertbroom
Brodiaea orcuttii - Orcutt's brodiaea
Brodiaea terrestris - dwarf brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Croton californicus - California croton
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Galium aparine - common bedstraw
Hirschfeldia incana - shortpod mustard
Holocarpha virgata ssp. elongata - Graceful tarplant
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Logfia gallica - narrowleaf cottonrose
Lythrum hyssopifolia - hyssop loosestrife
Nuttallanthus texanus - Texas toadflax
Pogogyne abramsii - San Diego mesa mint
Pseudognaphalium canescens - Wright's cudweed
Psilocarphus brevissimus - woolly marble
Rumex sp.
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5356



Photo taken:

Photo location is 32.819153, -117.132756 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5358

Photopoint X: -117.13314600000

Photopoint Y: 32.81909800000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 30.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 9:49 AM

Survey End Time: 10:14 AM

Surveyors: Rebecca Alvidrez, Cindy Dunn, Paula Birdwell

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 10-25%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	1-5%
Crassula aquatica - Aquatic pygmy weed	<1%
Deschampsia danthonioides - annual hairgrass	1-5%
Downingia cuspidata - Toothed downingia	10-25%
Eleocharis macrostachya - common spikerush	5-10%
Holocarpha virgata ssp. elongata - Graceful tarplant	<1%
Juncus bufonius - toad rush	5-10%
Navarretia hamata - hooked pincushionplant	5-10%
Pilularia americana - American pillwort	25-50%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Erodium botrys - longbeak stork's bill	5-10%
Lythrum hyssopifolia - hyssop loosestrife	10-25%
Phalaris paradoxa	1-5%
Polypogon monspeliensis - annual rabbitsfoot grass	5-10%

Cover of Nonnative Species in Basin: 25-50% Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Stinkwort from last year.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5358

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon americanus - American bird's-foot trefoil
Acmispon glaber - deerweed
Baccharis sarothroides - desertbroom
Brodiaea orcuttii - Orcutt's brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Castilleja densiflora ssp. gracilis - Graceful owl's clover
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Croton californicus - California croton
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Galium aparine - common bedstraw
Hirschfeldia incana - shortpod mustard
Holocarpha virgata ssp. elongata - Graceful tarplant
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Logfia gallica - narrowleaf cottonrose
Lythrum hyssopifolia - hyssop loosestrife
Melilotus indica - annual yellow sweetclover
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Phalaris paradoxa - hood canarygrass
Pogogyne abramsii - San Diego mesa mint
Polypogon monspeliensis - annual rabbitsfoot grass
Psilocarphus brevissimus - woolly marble
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Sonchus oleraceus - common sowthistle

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5358



Photo taken:

Photo location is 32.819098, -117.133146 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5363

Photopoint X: -117.13287100000

Photopoint Y: 32.82012100000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 30.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/24/2019

Survey Start Time: 10:50 AM

Survey End Time: 11:07 AM

Surveyors: Maya Mazon, Rebecca Alvidrez, Cindy Dunn

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 10-25%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	1-5%
Crassula aquatica - Aquatic pygmy weed	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	1-5%
Downingia cuspidata - Toothed downingia	1-5%
Eleocharis macrostachya - common spikerush	1-5%
Holocarpha virgata ssp. elongata - Graceful tarplant	1-5%
Juncus bufonius - toad rush	5-10%
Navarretia hamata - hooked pincushionplant	1-5%
Pilularia americana - American pillwort	10-25%
Plagiobothrys acanthocarpus - adobe popcornflower	1-5%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 13

Nonnative Species in Pool

Species Name	Cover
Cotula coronopifolia - common brassbuttons	1-5%
Erodium botrys - longbeak stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	1-5%
Lythrum hyssopifolia - hyssop loosestrife	10-25%
Polypogon monspeliensis - annual rabbitsfoot grass	1-5%

Cover of Nonnative Species in Basin: 25-50% Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 10-25% Cover of Rocks/Cobble in Basin: 5-10% Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5363

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Baccharis sarothroides - desertbroom
Brodiaea orcuttii - Orcutt's brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Castilleja densiflora ssp. gracilis - Graceful owl's clover
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Crassula connata - sand pygmyweed
Croton setigerus - dove weed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Downingia cuspidata - Toothed downingia
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Festuca myuros - rattail sixweeks grass
Galium aparine - common bedstraw
Hirschfeldia incana - shortpod mustard
Holocarpa virgata ssp. elongata - Graceful tarplant
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lupinus bicolor - annual lupine
Lythrum hyssopifolia - hyssop loosestrife
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Pilularia americana - American pillwort
Plantago elongata - annual coast plantago
Plantago erecta - California plantain
Pogogyne abramsii - San Diego mesa mint
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium canescens - Wright's cudweed
Psilocarphus brevissimus - woolly marble
Psilocarphus tenellus - short woollyheads
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Uropappus lindleyi - silver puffs

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5363



Photo taken:

Photo location is 32.820121, -117.132871 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5369

Photopoint X: -117.13433000000

Photopoint Y: 32.81811300000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 30.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 4/24/2019

Survey Start Time: 9:36 AM

Survey End Time: 10:00 AM

Surveyors: Maya Mazon, Rebecca Alvidrez, Cindy Dunn

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 5-10%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	5-10%
Crassula aquatica - Aquatic pygmy weed	10-25%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	1-5%
Downingia cuspidata - Toothed downingia	50-75%
Eleocharis macrostachya - common spikerush	10-25%
Holocarpha virgata ssp. elongata - Graceful tarplant	1-5%
Juncus bufonius - toad rush	10-25%
Myosurus minimus - little mouse tail	5-10%
Pilularia americana - American pillwort	25-50%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 12

Nonnative Species in Pool

Species Name	Cover
Cotula coronopifolia - common brassbuttons	1-5%
Erodium botrys - longbeak stork's bill	1-5%
Gastroidium phleoides - nit grass	1-5%
Hypochaeris glabra - smooth cat's ear	1-5%
Lythrum hyssopifolia - hyssop loosestrife	10-25%
Phalaris aquatica - harding Grass	1-5%

Cover of Nonnative Species in Basin: 25-50% Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5369

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon americanus - American bird's-foot trefoil
Acmispon glaber - deerweed
Acmispon micranthus - small flowered lotus
Avena barbata - slender oat
Baccharis sarothroides - desertbroom
Brodiaea orcuttii - Orcutt's brodiaea
Bromus diandrus - ripgut brome
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Castilleja densiflora ssp. gracilis - Graceful owl's clover
Centaurea melitensis - Maltese star-thistle
Cerastium glomeratum - sticky mouseear chickweed
Cotula coronopifolia - common brassbuttons
Crassula aquatica - Aquatic pygmy weed
Crassula connata - sand pygmyweed
Croton setigerus - dove weed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Hirschfeldia incana - shortpod mustard
Hordeum murinum - mouse barley
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Logfia gallica - narrowleaf cottonrose
Lupinus bicolor - annual lupine
Lythrum hyssopifolia - hyssop loosestrife
Malosma laurina - laurel sumac
Nuttallanthus texanus - Texas toadflax
Phalaris aquatica - harding Grass
Rumex crispus - curly dock
Silene gallica - common catchfly
Sonchus asper - spiny sowthistle
Uropappus lindleyi - silver puffs

Notes/Comments: Dry algae

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5369



Photo taken:

Photo location is 32.818113, -117.13433 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5371

Photopoint X: -117.13432000000

Photopoint Y: 32.81766100000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 15.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/24/2019

Survey Start Time: 10:11 AM

Survey End Time: 10:37 AM

Surveyors: Maya Mazon, Cindy Dunn, Rebecca Alvidrez

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 5-10%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Acmispon americanus - American bird's-foot trefoil	1-5%
Brodiaea orcuttii - Orcutt's brodiaea	1-5%
Castilleja densiflora ssp. gracilis - Graceful owl's clover	1-5%
Crassula aquatica - Aquatic pygmy weed	25-50%
Deinandra fasciculata - clustered tarweed	10-25%
Downingia cuspidata - Toothed downingia	1-5%
Holocarpha virgata ssp. elongata - Graceful tarplant	1-5%
Juncus bufonius - toad rush	10-25%
Pilularia americana - American pillwort	10-25%
Plantago elongata - annual coast plantago	1-5%
Plantago erecta - California plantain	5-10%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 13

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	1-5%
Cotula coronopifolia - common brassbuttons	1-5%
Erodium botrys - longbeak stork's bill	1-5%
Festuca myuros - rattle tail sixweeks grass	1-5%
Gastridium phleoides - nit grass	1-5%
Hypochaeris glabra - smooth cat's ear	1-5%
Lythrum hyssopifolia - hyssop loosestrife	25-50%
Phalaris aquatica - harding Grass	10-25%
Polypogon monspeliensis - annual rabbitsfoot grass	1-5%

Cover of Nonnative Species in Basin: 75-100% Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5371

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon americanus - American bird's-foot trefoil
Avena barbata - slender oat
Baccharis sarothroides - desertbroom
Bloomeria clevelandii - San Diego goldenstar
Brodiaea orcuttii - Orcutt's brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Glebionis coronaria - crown daisy
Hordeum murinum - mouse barley
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lysimachia arvensis - scarlet pimpernel
Pennisetum setaceum - crimson fountaingrass
Phalaris aquatica - harding Grass
Sonchus asper - spiny sowthistle
Uropappus lindleyi - silver puffs
Zeltnera venusta - charming centaury

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5371



Photo taken:

Photo location is 32.817661, -117.13432 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5388

Photopoint X: -117.12804200000

Photopoint Y: 32.81058800000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 5.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/22/2019

Survey Start Time: 12:41 PM

Survey End Time: 1:29 PM

Surveyors: Rebecca Alvidrez, Cindy Dunn, Maya Mazon

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 5-10%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Acmispon glaber - deerweed	1-5%
Bloomeria clevelandii - San Diego goldenstar	1-5%
Brodiaea orcuttii - Orcutt's brodiaea	5-10%
Brodiaea terrestris - dwarf brodiaea	1-5%
Chlorogalum parviflorum - smallflower soap plant	1-5%
Crassula aquatica - Aquatic pygmy weed	5-10%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	1-5%
Downingia cuspidata - Toothed downingia	<1%
Holocarpha virgata ssp. elongata - Graceful tarplant	5-10%
Juncus bufonius - toad rush	5-10%
Muilla maritima - sea muilla	1-5%
Myosurus minimus - little mouse tail	1-5%
Navarretia hamata - hooked pincushionplant	5-10%
Pilularia americana - American pillwort	1-5%
Plantago erecta - California plantain	1-5%
Psilocarphus brevissimus - woolly marble	25-50%
Selaginella cinerascens - mesa spikemoss	10-25%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 19

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	5-10%
Festuca myuros - rattail sixweeks grass	1-5%
Gastridium phleoides - nit grass	10-25%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	1-5%

Cover of Nonnative Species in Basin: 25-50% Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5388

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Artemisia californica - coastal sagebrush
Avena barbata - slender oat
Bloomeria clevelandii - San Diego goldenstar
Brodiaea orcuttii - Orcutt's brodiaea
Brodiaea terrestris - dwarf brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Chlorogalum parviflorum - smallflower soap plant
Crassula connata - sand pygmyweed
Croton setigerus - dove weed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Downingia cuspidata - Toothed downingia
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Gastridium phleoides - nit grass
Gnaphalium palustre - Lowland cudweed
Holocarpha virgata ssp. elongata - Graceful tarplant
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Logfia gallica - narrowleaf cottonrose
Lythrum hyssopifolia - hyssop loosestrife
Malosma laurina - laurel sumac
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Osmadenia tenella - false rosinweed
Plantago elongata - annual coast plantago
Plantago erecta - California plantain
Pogogyne abramsii - San Diego mesa mint
Polypogon monspeliensis - annual rabbitsfoot grass
Psilocarphus brevissimus - woolly marble
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Stylocline gnaphaloides - everlasting nest straw
Uropappus lindleyi - silver puffs

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5388



Photo taken:

Photo location is 32.810588, -117.128042 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5423

Photopoint X: -117.12803000000

Photopoint Y: 32.81076400000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.5	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/22/2019

Survey Start Time: 12:14 PM

Survey End Time: 12:33 PM

Surveyors: Rebecca Alvidrez, Cindy Dunn, Maya Mazon

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 1-5%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Bloomeria clevelandii - San Diego goldenstar	1-5%
Brodiaea orcuttii - Orcutt's brodiaea	5-10%
Crassula aquatica - Aquatic pygmy weed	1-5%
Deinandra fasciculata - clustered tarweed	5-10%
Deschampsia danthonioides - annual hairgrass	1-5%
Downingia cuspidata - Toothed downingia	1-5%
Juncus bufonius - toad rush	10-25%
Myosurus minimus - little mouse tail	10-25%
Navarretia hamata - hooked pincushionplant	25-50%
Osmadenia tenella - false rosinweed	1-5%
Pilularia americana - American pillwort	5-10%
Psilocarphus brevissimus - woolly marble	10-25%
Psilocarphus tenellus - short woollyheads	5-10%
Selaginella cinerascens - mesa spikemoss	25-50%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 15

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	1-5%
Bromus madritensis - compact brome	1-5%
Erodium botrys - longbeak stork's bill	5-10%
Festuca myuros - rattail sixweeks grass	10-25%
Gastridium phleoides - nit grass	5-10%
Hypochaeris glabra - smooth cat's ear	1-5%
Lythrum hyssopifolia - hyssop loosestrife	1-5%

Cover of Nonnative Species in Basin: 25-50% Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: 1-5%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 5423

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Artemisia californica - coastal sagebrush
Avena barbata - slender oat
Bloomeria clevelandii - San Diego goldenstar
Brodiaea orcuttii - Orcutt's brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Chlorogalum parviflorum - smallflower soap plant
Crassula connata - sand pygmyweed
Croton setigerus - dove weed
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Gastroidium phleoides - nit grass
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Logfia gallica - narrowleaf cottonrose
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Plantago elongata - annual coast plantago
Pogogyne abramsii - San Diego mesa mint
Psilocarphus brevissimus - woolly marble
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Sonchus asper - spiny sowthistle
Uropappus lindleyi - silver puffs

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 5423



Photo taken:

Photo location is 32.810764, -117.12803 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 6351

Photopoint X: -117.13026800000

Photopoint Y: 32.81434500000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.5	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 10:35 AM

Survey End Time: 10:47 AM

Surveyors: Rebecca Alvidrez, Cindy Dunn, Paul Birdwell

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 5-10%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	5-10%
Crassula aquatica - Aquatic pygmy weed	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	1-5%
Holocarpha virgata ssp. elongata - Graceful tarplant	1-5%
Juncus bufonius - toad rush	1-5%
Pilularia americana - American pillwort	10-25%
Plantago elongata - annual coast plantago	1-5%
Psilocarphus brevissimus - woolly marble	25-50%
Psilocarphus tenellus - short woollyheads	1-5%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 11

Nonnative Species in Pool

Species Name	Cover
Gastridium phleoides - nit grass	1-5%
Hypochaeris glabra - smooth cat's ear	<1%
Lythrum hyssopifolia - hyssop loosestrife	1-5%
Polypogon monspeliensis - annual rabbitsfoot grass	1-5%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 6351

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Avena barbata - slender oat
Baccharis sarothroides - desertbroom
Bloomeria clevelandii - San Diego goldenstar
Brodiaea orcuttii - Orcutt's brodiaea
Bromus diandrus - ripgut brome
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Crassula connata - sand pygmyweed
Croton californicus - California croton
Croton setigerus - dove weed
Datura stramonium - Jimson weed
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Holocarpha virgata ssp. elongata - Graceful tarplant
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lythrum hyssopifolia - hyssop loosestrife
Quercus berberidifolia - scrub oak

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 6351



Photo taken:

Photo location is 32.814345, -117.130268 NAD83 State Plane California Zone 6 (feet)

Photos merged using ArcSoft Panorama Maker 4.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Montgomery_Field

VP_ID: 6384

Photopoint X: -117.13308900000

Photopoint Y: 32.81976500000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 20.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/24/2019

Survey Start Time: 11:04 AM

Survey End Time: 11:40 AM

Surveyors: Maya Mazon, Rebecca Alvidrez, Cindy Dunn

VPHCP Covered Species Present: POAB

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin 10-25%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Acmispon americanus - American bird's-foot trefoil	1-5%
Brodiaea orcuttii - Orcutt's brodiaea	1-5%
Crassula aquatica - Aquatic pygmy weed	5-10%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	1-5%
Downingia cuspidata - Toothed downingia	25-50%
Eleocharis macrostachya - common spikerush	1-5%
Holocarpha virgata ssp. elongata - Graceful tarplant	1-5%
Juncus bufonius - toad rush	10-25%
Navarretia hamata - hooked pincushionplant	10-25%
Pilularia americana - American pillwort	25-50%
Psilocarphus brevissimus - woolly marble	25-50%
Psilocarphus tenellus - short woollyheads	1-5%
Zeltnera venusta - charming centaury	1-5%

Cover of Other Native Species in Basin 75-100% Native Species Richness in Basin: 14

Nonnative Species in Pool

Species Name	Cover
Erodium botrys - longbeak stork's bill	5-10%
Festuca myuros - rattail sixweeks grass	1-5%
Lythrum hyssopifolia - hyssop loosestrife	10-25%
Phalaris aquatica - harding Grass	1-5%
Polypogon monspeliensis - annual rabbitsfoot grass	5-10%

Cover of Nonnative Species in Basin: 25-50% Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Montgomery_Field

VP_ID: 6384

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon americanus - American bird's-foot trefoil
Acmispon glaber - deerweed
Avena barbata - slender oat
Baccharis sarothroides - desertbroom
Brodiaea orcuttii - Orcutt's brodiaea
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Castilleja densiflora ssp. gracilis - Graceful owl's clover
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Crassula connata - sand pygmyweed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Downingia cuspidata - Toothed downingia
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Festuca myuros - rattail sixweeks grass
Hirschfeldia incana - shortpod mustard
Holocarpha virgata ssp. elongata - Graceful tarplant
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Juncus bufonius - toad rush
Lythrum hyssopifolia - hyssop loosestrife
Melilotus indica - annual yellow sweetclover
Navarretia hamata - hooked pincushionplant
Nuttallanthus texanus - Texas toadflax
Phalaris aquatica - harding Grass
Pilularia americana - American pillwort
Plagiobothrys acanthocarpus - adobe popcornflower
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium canescens - Wright's cudweed
Psilocarphus brevissimus - woolly marble
Psilocarphus tenellus - short woollyheads
Selaginella cinerascens - mesa spikemoss
Silene gallica - common catchfly
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments:

Montgomery-Gibbs Executive Airport

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 6384



Photo taken:

Photo location is 32.819765, -117.133089 NAD83 State Plane California Zone 6 (feet)

Nobel Drive

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Nobel_Drive

Planning Unit: North City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level: VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 5/2/2019 Start Time: 9:30:00

Surveyors: Jason Allen, Mark Berninger, Jessie Lane, Diana Brand

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed control performed by Caltrans.

Notes:

Visit Date: 6/4/2019 Start Time: 7:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Sign_install,Regularpatrolsrecommended,Fence_install

Other Management Needs:

Additional Management Actions Recommended: Weed control for stinkwort and lythrum. Extend fence around small pool in trail.

Notes: Navarretia found in pools 665 and 666.

Nobel Drive

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/2/2019
- Photo description: Invasive and native plants encroaching into vernal pools.



- Photo taken: 6/4/2019
- Photo description: Invasive plants – Stinkwort (*Dittrichia graveolens*) present in vernal pools and surrounding buffer.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Nobel_Drive

VP_ID: 666

Photopoint X: -117.19627174900

Photopoint Y: 32.86648267310

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/2/2019

Survey Start Time: 3:59 PM

Survey End Time: 4:31 PM

Surveyors: Mark Berninger, Jason Allen, Diana Brand Ramirez, Jessie Lane

VPHCP Covered Species Present: NAFO

Cover of ERAR in Basin

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Brodiaea orcuttii - Orcutt's brodiaea	<1%
Callitriche marginata - California water starwort	5-10%
Cryptantha sp. - cryptantha	1-5%
Deinandra fasciculata - clustered tarweed	<1%
Deschampsia danthonioides - annual hairgrass	<1%
Downingia cuspidata - Toothed downingia	<1%
Eleocharis macrostachya - common spikerush	<1%
Navarretia hamata - hooked pincushionplant	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 9

Nonnative Species in Pool

Species Name	Cover
Cotula coronopifolia - common brassbuttons	<1%
Erodium botrys - longbeak stork's bill	<1%
Lythrum hyssopifolia - hyssop loosestrife	1-5%
Phalaris minor - littleseed canarygrass	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Spergularia villosa - hairy sand spurry	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Nobel_Drive

VP_ID: 666

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Bromus diandrus - ripgut brome
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Castilleja exserta - exserted Indian paintbrush
Crassula aquatica - Aquatic pygmy weed
Crassula connata - sand pygmyweed
Croton setigerus - dove weed
Deinandra fasciculata - clustered tarweed
Dittrichia graveolens - Stinkwort
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Galium angustifolium - narrowleaf bedstraw
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lactuca serriola - prickly lettuce
Lythrum hyssopifolia - hyssop loosestrife
Navarretia fossalis - Spreading navarretia
Nuttallanthus texanus - Texas toadflax
Pseudognaphalium californicum - ladies' tobacco
Silene gallica - common catchfly
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster

Notes/Comments: None

Nobel Drive

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 666



Photo taken: 5/2/2019

Photo location is -117.19627174900, 32.86648267310 NAD83 State Plane California Zone 6 (feet)

Otay Lakes

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Public Utilities

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Otay_Lakes_Reservoir

Planning Unit: South

City or Other? City

Managing Department: Pubic_Uilities

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/13/2019 Start Time: 9:30:00

Surveyors: Cheryl Jenkins, Mark Berninger

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol

Other Management Needs:

Additional Management Actions Recommended:

Notes:

Visit Date: 4/29/2019 Start Time: 10:54:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: no Days Since Last Rain: >16 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching

Other Management Needs:

Additional Management Actions Recommended: Access road needs to be graded.

Notes: Plant inventory done by Recon

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Otay_Lakes_Reservoir

Visit Date: 6/10/2019 Start Time: 13:45:00

Surveyors: Cheryl Jenkins, Cindy Dunn

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,Other

Other Management Needs: Access road needs to be graded.

Additional Management Actions Recommended:

Notes:

Management Actions Completed:

Otay Lakes

Management Monitoring Photos

These photos represent issues noted during management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: April 29, 2019
- Photo description: View of vernal pool with weeds along the perimeter. View north



- Photo taken: June 10, 2019
- Photo description: View of upper Otay Lakes vernal pool with weeds within it. View north

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 208

Photopoint X: -116.91438500000

Photopoint Y: 32.62331100000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/29/2019

Survey Start Time: 1:08 PM

Survey End Time: 1:32 PM

Surveyors: Kayo Valenti and JR Sundberg, RECON: Cheryl Jenkins, City

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Bloomeria clevelandii - San Diego goldenstar	<1%
Callitriche marginata - California water starwort	<1%
Castilleja exserta - exserted Indian paintbrush	1-5%
Cressa truxillensis - spreading alkaliweed	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Downingia cuspidata - Toothed downingia	<1%
Eleocharis macrostachya - common spikerush	<1%
Hordeum depressum	<1%
Isocoma menziesii - Menzies' goldenbush	<1%
Juncus bufonius - toad rush	<1%
Phalaris lemmonii - Lemmon's canarygrass	<1%
Pilularia americana - American pillwort	<1%
Plagiobothrys acanthocarpus - adobe popcornflower	<1%
Psilocarphus brevissimus - woolly marble	<1%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 17

Nonnative Species in Pool

Species Name	Cover
Avena barbata - slender oat	<1%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	10-25%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Medicago polymorpha - burclover	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: Listed all desiccated species from this season

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 208

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Bloomeria clevelandii - San Diego goldenstar
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Castilleja exserta - exserted Indian paintbrush
Convolvulus simulans - field bindweed
Cressa truxillensis - spreading alkaliweed
Deinandra fasciculata - clustered tarweed
Erodium botrys - longbeak stork's bill
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Melilotus indica - annual yellow sweetclover
Salvia munzii - Munz's sage
Selaginella cinerascens - mesa spikemoss
Sonchus oleraceus - common sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: Lichen cover less than 1%

Otay Lakes

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 208



Photo taken: April 29, 2019 facing north-northwest
Photo location is 32.623311, -116.914385 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 656

Photopoint X: -116.91644100000

Photopoint Y: 32.62413400000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 5.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/29/2019

Survey Start Time: 12:29 PM

Survey End Time: 12:58 PM

Surveyors: Kayo Valenti and JR Sundberg, RECON: Cheryl Jenkins, City

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Allium sp. - onion	<1%
Bloomeria clevelandii - San Diego goldenstar	5-10%
Brodiaea terrestris - dwarf brodiaea	<1%
Calochortus splendens - splendid mariposa lily	<1%
Castilleja exserta - exserted Indian paintbrush	<1%
Chlorogalum parviflorum - smallflower soap plant	<1%
Crassula aquatica - Aquatic pygmy weed	<1%
Cressa truxillensis - spreading alkaliweed	<1%
Cuscuta sp.	1-5%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Hordeum depressum	<1%
Isocoma menziesii - Menzies' goldenbush	<1%
Juncus bufonius - toad rush	<1%
Microseris douglasii ssp. platycarpa - Douglas' silverpuffs	<1%
Phalaris lemmonii - Lemmon's canarygrass	<1%
Pilularia americana - American pillwort	<1%
Plagiobothrys acanthocarpus - adobe popcornflower	<1%
Psilocarphus brevissimus - woolly marble	<1%
Psilocarphus tenellus - short woollyheads	<1%
Sisyrinchium bellum - Western blue-eyed grass	<1%
Stipa pulchra - purple needlegrass	<1%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 24

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	1-5%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	10-25%
Hypochaeris glabra - smooth cat's ear	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: Listed any dying or desiccated species from this season

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 656

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Castilleja exserta - exserted Indian paintbrush
Crassula connata - sand pygmyweed
Cressa truxillensis - spreading alkaliweed
Cuscuta sp.
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Hordeum depressum - Alkali barley
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Lepidium nitidum - shining pepperweed
Logfia filaginoides - California cottonrose
Logfia gallica - narrowleaf cottonrose
Microseris douglasii ssp. platycarpha - Douglas' silverpuffs
Plantago erecta - California plantain
Sisyrinchium bellum - Western blue-eyed grass
Stipa pulchra - purple needlegrass

Notes/Comments: Lichen/moss present is less than 1%

Otay Lakes

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 656



Photo taken: April 29, 2019 facing south-southeast
Photo location is 32.624134, -116.916441 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 891

Photopoint X: -116.91983000000

Photopoint Y: 32.62281400000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 20.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/29/2019

Survey Start Time: 10:54 AM

Survey End Time: 11:33 AM

Surveyors: Kayo Valenti and JR Sundberg, RECON: Cheryl Jenkins, City

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Allium sp. - onion	1-5%
Baccharis sarothroides - desertbroom	<1%
Bloomeria clevelandii - San Diego goldenstar	<1%
Brodiaea terrestris - dwarf brodiaea	<1%
Castilleja exserta - exserted Indian paintbrush	<1%
Chlorogalum parviflorum - smallflower soap plant	<1%
Crassula connata - sand pygmyweed	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Deschampsia danthonioides - annual hairgrass	<1%
Eleocharis macrostachya - common spikerush	<1%
Eriogonum fasciculatum - Eastern Mojave buckwheat	<1%
Juncus bufonius - toad rush	<1%
Lasthenia gracilis - needle goldfields	5-10%
Lysimachia minima - chaffweed	<1%
Muilla maritima - sea muilla	<1%
Phalaris lemmonii - Lemmon's canarygrass	<1%
Pilularia americana - American pillwort	<1%
Plantago erecta - California plantain	1-5%
Psilocarphus brevissimus - woolly marble	<1%
Psilocarphus tenellus - short woollyheads	<1%
Stipa pulchra - purple needlegrass	<1%
Trichostema lanceolatum - vinegarweed	<1%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 24

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Erodium botrys - longbeak stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 5

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: Listed all species observed even if dying or desiccated

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 891

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acemispom glaber - deerweed
Baccharis sarothroides - desertbroom
Bloomeria clevelandii - San Diego goldenstar
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Castilleja exserta - exserted Indian paintbrush
Crassula connata - sand pygmyweed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Dichelostemma capitatum - bluedicks
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Gastroidium phleoides - nit grass
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Lasthenia gracilis - needle goldfields
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Plagiobothrys collinus - popcorn flower
Stipa pulchra - purple needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: Lichen & moss cover = 50%. Did not put toward bare ground cover

Otay Lakes

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 891



Photo taken: April 29, 2019 facing west
Photo location is 32.622814, -116.919830 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 892

Photopoint X: -116.91968500000

Photopoint Y: 32.62292600000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0	Baseline Cover of NAFO: 1.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/29/2019

Survey Start Time: 11:41 AM

Survey End Time: 12:17 PM

Surveyors: Kayo Valenti and JR Sundberg, RECON: Cheryl Jenkins, City

VPHCP Covered Species Present: NAFO,ERAR

Cover of ERAR in Basin 5-10%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Allium sp. - onion	1-5%
Brodiaea terrestris - dwarf brodiaea	<1%
Callitriche marginata - California water starwort	<1%
Castilleja exserta - exserted Indian paintbrush	1-5%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	1-5%
Elatine brachysprema	<1%
Eleocharis macrostachya - common spikerush	1-5%
Hordeum depressum	<1%
Juncus bufonius - toad rush	1-5%
Lasthenia gracilis - needle goldfields	<1%
Lepidium nitidum - shining pepperweed	<1%
Lysimachia minima - chaffweed	<1%
Phalaris lemmonii - Lemmon's canarygrass	<1%
Pilularia americana - American pillwort	1-5%
Psilocarphus brevissimus - woolly marble	5-10%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 18

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Festuca myuros - rattail sixweeks grass	<1%
Gastridium phleoides - nit grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: Listed all desiccated or dying species from this season

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 892

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Bloomeria clevelandii - San Diego goldenstar
Brodiaea terrestris - dwarf brodiaea
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Castilleja exserta - exserted Indian paintbrush
Chlorogalum parviflorum - smallflower soap plant
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Hordeum depressum - Alkali barley
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Lamarckia aurea - goldentop grass
Lasthenia gracilis - needle goldfields
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Selaginella cinerascens - mesa spikemoss
Sonchus oleraceus - common sowthistle
Trichostema lanatum - woolly bluecurls
Zeltnera venusta - charming centaury

Notes/Comments:

Otay Lakes

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 892



Photo taken: April 29, 2019 facing north-northwest
Photo location is 32.622926, -116.919685 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 1801

Photopoint X: -116.91165700000

Photopoint Y: 32.62422700000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 4/29/2019

Survey Start Time: 1:42 PM

Survey End Time: 1:59 PM

Surveyors: Kayo Valenti and JR Sundberg, RECON: Cheryl Jenkins, City

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	<1%
Brodiaea terrestris - dwarf brodiaea	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Deschampsia danthonioides - annual hairgrass	<1%
Eriogonum fasciculatum - Eastern Mojave buckwheat	<1%
Juncus bufonius - toad rush	5-10%
Lysimachia minima - chaffweed	<1%
Pilularia americana - American pillwort	<1%
Psilocarphus brevissimus - woolly marble	<1%
Sisyrinchium bellum - Western blue-eyed grass	1-5%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 10

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	10-25%
Festuca myuros - rattail sixweeks grass	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Silene gallica - common catchfly	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: 1-5%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: Listed all desiccated species from this season

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Otay_Lakes_Reservoir

VP_ID: 1801

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Adenostoma fasciculatum - chamise
Antirrhinum nuttallianum - Nuttall's snapdragon
Avena barbata - slender oat
Baccharis sarothroides - desertbroom
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Crassula connata - sand pygmyweed
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Festuca myuros - rattail sixweeks grass
Galium aparine - common bedstraw
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Juncus bufonius - toad rush
Logfia gallica - narrowleaf cottonrose
Lythrum hyssopifolia - hyssop loosestrife
Navarretia hamata - hooked pincushionplant
Polypogon monspeliensis - annual rabbitsfoot grass
Psilocarphus brevissimus - woolly marble
Silene gallica - common catchfly
Zeltnera venusta - charming centaury

Notes/Comments:

Otay Lakes

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1801



Photo taken: April 29, 2019 facing south-southeast
Photo location is 32.624227, -116.911657 NAD83 State Plane California Zone 6 (feet)

Pasatiempo

Planning Unit: Central

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Pasatiempo

Planning Unit: Central

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/4/2019 Start Time: 23:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Add_replace_lock,Add_replace_chain,Sign_install,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Cactus in pools, glebionsis, toc thistle, fennel, fountain grass present

Visit Date: 3/27/2019 Start Time: 23:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fence_install,Sign_install,Dump_cleanup,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed control soon.

Notes: Crown daisy, tocolote thistle, scarlet pimpernel, fennel near pools. Cactus in pools. Concrete in pools.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Pasatiempo

Visit Date: 5/20/2019 Start Time: 1:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Sign_install,Fence_install,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Continue weed control.

Notes: Dit gra seedlings popping up. Foe vul ready to treat.

Management Actions Completed:

Date: 4/10/2019 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Weed whack invasive species.

Notes/Comments:

Date: 4/12/2019 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species and weed whack.

Notes/Comments:

Date: 6/4/2019 Completed by: Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 6/5/2019 Completed by: Jason Allen

Contractor (if applicable) Aztec Landscaping

Management Actions Completed: Crew weed whack invasive species. Herbicide application to invasive species.

Notes/Comments:

Pasatiempo

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/4/2019
- Photo description: Dead native plants in vernal pool.



- Photo taken: 5/20/2019
- Photo description: Dead native plants in vernal pool weed whacked and removed.

Pasatiempo

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/10/2019
- Photo description: Invasive plant – Crown daisy (*Glebionis coronaria*) encroaching on vernal pool edge.



- Photo taken: 4/10/2019
- Photo description: Invasive plant – Crown daisy (*Glebionis coronaria*) weed whacked to extend vernal pool buffer.

Pasatiempo

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/26/2019
- Photo description: Invasive plant – Crown daisy (*Glebionis coronaria*) taking over vernal pool complex.



- Photo taken: 6/5/2019
- Photo description: Invasive plant – Crown daisy (*Glebionis coronaria*) weed whacked and removed.

Proctor Valley

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Public Utilities

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Proctor_Valley

Planning Unit: South

City or Other? City

Managing Department: Pubic_Uilities

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/28/2019 Start Time: 6:30:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Present

Listed Plants Visible? Wrong_Tim Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool:

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs:

Other Management Needs:

Additional Management Actions Recommended: Restoration projects proposed for pools east of road; ongoing west of road. David Hogan

Notes: Spade foot tadpoles obs in multiple pools; net algae observed in one pool; B. Lindahli present in some pools.

Visit Date: 4/2/2019 Start Time: 15:45:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: yes Days Since Last Rain: >16 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching

Other Management Needs:

Additional Management Actions Recommended: Portions of the preserve will be undergoing restoration efforts this year.

Notes: Button celery observed in pools in the NW portion of the preserve.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Proctor_Valley

Visit Date: 5/9/2019 Start Time: 7:30:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,Sign_replacement

Other Management Needs:

Additional Management Actions Recommended: Restoration efforts scheduled for pools east of the road. Button celery observed in restored pools west of the road.

Notes:

Management Actions Completed:

Proctor Valley

Management Monitoring Photos

These photos represent issues noted during management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: January 28, 2019
- Photo description: Non-native net algae growing in one of the vernal pools at Proctor Valley.



- Photo taken: April 2, 2019
- Photo description: View of road-rut pool with weeds surrounding it. View west.

Pueblo Lands

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Public Utilities

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Pueblo_Lands_N_and_S

Planning Unit: North

City or Other? City

Managing Department: Pubic_Uilities

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/25/2018 Start Time: 5:30:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching

Other Management Needs:

Additional Management Actions Recommended:

Notes: Carpet of erodium starting to grow through out the vp area.

Visit Date: 4/17/2019 Start Time: 9:30:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: no Days Since Last Rain: >16 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol

Other Management Needs:

Additional Management Actions Recommended:

Notes: Psilocarphus brevissimus, Navarretia hamata, Castilleja exserta, Muilla maritima, Crassula aquatica, Lupinus bicolor, Stylocline gnaphaloides, Cardionema ramosissimum observed in/around pools

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Pueblo_Lands_N_and_S

Visit Date: 5/31/2019 **Start Time:** 13:00:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: no **Days Since Last Rain:** 6-15 **Fairy Shrimp Visible?**

Listed Plants Visible? Absent **Listed Plants:**

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching

Other Management Needs:

Additional Management Actions Recommended:

Notes:

Management Actions Completed:

Pueblo South

Management Monitoring Photos

These photos represent issues noted during management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: January 25, 2019
- Photo description: Carpet of erodium surrounding vernal pools. View east.



- Photo taken: April 17, 2019
- Photo description: non-native grasses and erodium in and around vernal pool. View west.

Robinhood Ridge

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Robinhood_Ridge

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/17/2019 Start Time: 17:30:00

Surveyors: Jason Allen, Jessie Lane, Doug Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Sign_install,Trash_pickup,Regularpatrolsrecommended,Add_replace_lock,Add_replace_chain,Sign_replacement

Other Management Needs:

Additional Management Actions Recommended:

Notes: Ice plant, mustard, erodium.

Visit Date: 3/4/2019 Start Time: 9:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Regularpatrolsrecommended,Trash_pickup,Sign_install,Add_replace_lock,Add_replace_chain

Other Management Needs:

Additional Management Actions Recommended: More weed control soon.

Notes: Add signs to swing gates and locks and chains.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Robinhood_Ridge

Visit Date: 5/30/2019 Start Time: 4:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Sprayed weeds today ice plant, daisy, toc thistle.

Notes: More invasive plants to be sprayed.

Visit Date: 7/10/2019 Start Time: 18:30:00

Surveyors: Jason Allen, Diana Brand Ramirez, Jessie Lane

Site Conditions:

Ponded Water: no Days Since Last Rain: >16 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Trash_pickup,Regularpatrolsrecommended,Sign_install

Other Management Needs:

Additional Management Actions Recommended: Weed control, ice plant.

Notes: West pools no maintenance done yet. Needs weed whacking.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Robinhood_Ridge

Management Actions Completed:

Date: 10/2/2018 **Completed by:** Jason Allen

Contractor (if applicable)

Management Actions Completed: Trash and debris cleaned up.

Notes/Comments:

Date: 11/16/2018 **Completed by:** Jason Allen, Diana Brand Ramirez, Jessie Lane

Contractor (if applicable)

Management Actions Completed: Trash and debris cleaned up.

Notes/Comments:

Date: 12/4/2018 **Completed by:** Araceli Dominguez

Contractor (if applicable)

Management Actions Completed: Trash and debris cleaned up.

Notes/Comments:

Date: 2/8/2019 **Completed by:** Jason Allen, Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 2/19/2019 **Completed by:** Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 3/1/2019 **Completed by:** Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 4/22/2019 **Completed by:** Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Robinhood Ridge

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 9/21/2018
- Photo description: Trash/debris onsite.



- Photo taken: 9/21/2018
- Photo description: Section of fence missing.

Robinhood Ridge

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 11/16/2018
- Photo description: Trash/debris onsite.



- Photo taken: 2/3/2019
- Photo description: Missing fence repaired and replaced.

Robinhood Ridge

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/19/2019
- Photo description: Invasive plants – Ward's Weed (*Carrichtera annua*) present in vernal pools and surrounding buffer.



- Photo taken: 2/19/2019
- Photo description: Trash/debris onsite. Invasive plants present in vernal pools and surrounding buffer.

Robinhood Ridge

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/30/2019
- Photo description: Herbicide application to invasive plants in vernal pool complex.



- Photo taken: 5/30/2019
- Photo description: Invasive plants – Ward's Weed (*Carrichtera annua*) present in vernal pools and surrounding buffer after herbicide application.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1577

Photopoint X: -117.01028594019

Photopoint Y: 32.58136973009

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 20.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 7/10/2019

Survey Start Time: 2:17 PM

Survey End Time: 2:38 PM

Surveyors: Jason Allen, Diana Brand Ramirez, Jessie Lane

VPHCP Covered Species Present:

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	10-25%
Isocoma menziesii - Menzies' goldenbush	<1%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 2

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	5-10%
Centaurea melitensis - Maltese star-thistle	1-5%
Glebionis coronaria - crown daisy	1-5%
Helminthotheca echioides - bristly oxtongue	5-10%
Matricaria discoidea - pineapple weed	5-10%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: 25-50% Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 5-10% Cover of Rocks/Cobble in Basin: 1-5% Cover of Litter in Basin: 1-5%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1577

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Brassica nigra - black mustard
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Croton setigerus - dove weed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eleocharis macrostachya - common spikerush
Epilobium campestre - Smooth boisduvalia
Erodium sp. - stork's bill
Glebionis coronaria - crown daisy
Helminthotheca echioides - bristly oxtongue
Hesperoyucca whipplei - chaparral yucca
Isocoma menziesii - Menzies' goldenbush
Logfia gallica - narrowleaf cottonrose
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Psilocarphus brevissimus - woolly marble
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: Weed infestation and italian snails. Photopoint is point 234 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1577



Photo taken: 7/10/2019

Photo location is -117.0102859, 32.58136973 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1580

Photopoint X: -117.01017251978

Photopoint Y: 32.58120695015

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 7/10/2019

Survey Start Time: 1:40 PM

Survey End Time: 1:40 PM

Surveyors: Jason Allen, Diana Brand Ramirez, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Crassula connata - sand pygmyweed	1-5%
Deinandra fasciculata - clustered tarweed	10-25%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	10-25%
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	1-5%
Erodium sp. - stork's bill	<1%
Helminthotheca echioides - bristly oxtongue	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Matricaria discoidea - pineapple weed	<1%

Cover of Nonnative Species in Basin: 10-25% Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 25-50% Cover of Rocks/Cobble in Basin: 1-5% Cover of Litter in Basin: 1-5%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1580

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Brassica nigra - black mustard
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium sp. - stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Glebionis coronaria - crown daisy
Hesperoyucca whipplei - chaparral yucca
Isocoma menziesii - Menzies' goldenbush
Opuntia littoralis - coastal pricklypear
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Selaginella cinerascens - mesa spikemoss
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: Brassica jungle and italian white snails in pool.

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1580



Photo taken: 7/10/2019

Photo location is -117.0101725, 32.58120695 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1595

Photopoint X: 117.00471897400

Photopoint Y: 32.57842591100

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 50.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 11:31 AM

Survey End Time: 12:03 PM

Surveyors: Cheryl Jenkins, Mark Berninger

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Artemisia californica - coastal sagebrush	<1%
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Logfia gallica - narrowleaf cottonrose	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1595

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Gastridium phleoides - nit grass
Hypochaeris glabra - smooth cat's ear
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Psilocarphus brevissimus - woolly marble
Simmondsia chinensis - jojoba
Sisyrinchium bellum - Western blue-eyed grass
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1595



Photo taken: 5/9/2019

Photo location is 117.004719, 32.57842591 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1596

Photopoint X: -117.00477371700

Photopoint Y: 32.57821281700

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 75.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 10:59 AM

Survey End Time: 11:30 AM

Surveyors: Cheryl Jenkins, Mark Berninger

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Festuca myuros - rattle tail sixweeks grass	1-5%
Lysimachia arvensis - scarlet pimpernel	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 3

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1596

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus diandrus - ripgut brome
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Gastidium phleoides - nit grass
Lomatium dasycarpum - woollyfruit desertparsley
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Psilocarphus brevissimus - woolly marble
Simmondsia chinensis - jojoba
Sisyrinchium bellum - Western blue-eyed grass
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1596



Photo taken: 5/9/2019
Photo location is -117.0047737, 32.57821282 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1598

Photopoint X: -117.00472261600

Photopoint Y: 32.57820598020

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 40.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 10:27 AM

Survey End Time: 10:57 AM

Surveyors: Cheryl Jenkins, Mark Berninger

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	<1%
Psilocarphus brevissimus - woolly marble	5-10%
Sisyrinchium bellum - Western blue-eyed grass	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Gastridium phleoides - nit grass	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1598

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus diandrus - ripgut brome
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca perennis - Italian rye grass
Hypochaeris glabra - smooth cat's ear
Logfia gallica - narrowleaf cottonrose
Lomatium dasycarpum - woollyfruit desertparsley
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Simmondsia chinensis - jojoba
Sisyrinchium bellum - Western blue-eyed grass
Sonchus asper - spiny sowthistle

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1598



Photo taken: 5/9/2019

Photo location is -117.00472261600, 32.57820598020 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1599

Photopoint X: -117.00465529200

Photopoint Y: 32.57826936400

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 1:50 PM

Survey End Time: 2:17 PM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	10-25%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Lamarckia aurea - goldentop grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1599

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Artemisia californica - coastal sagebrush
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hainardia cylindrica - Thin tail
Hypochaeris glabra - smooth cat's ear
Linanthus dianthiflorus - ground pink
Logfia gallica - narrowleaf cottonrose
Lomatium dasycarpum - woollyfruit desertparsley
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Psilocarphus tenellus - short woollyheads
Rhus integrifolia - lemonade berry
Sisyrinchium bellum - Western blue-eyed grass
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Uropappus lindleyi - silver puffs
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1599



Photo taken: 5/9/2019

Photo location is -117.0046553, 32.57826936 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1600

Photopoint X: -117.00456447700

Photopoint Y: 32.57827345500

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 55.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 2:32 PM

Survey End Time: 2:54 PM

Surveyors: Diana Brand Ramirez, Mark Berninger

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 50-75% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Lysimachia arvensis - scarlet pimpernel	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1600

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon micranthus - small flowered lotus
Amsinckia intermedia - common fiddleneck
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia californica - California cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Dudleya pulverulenta - chalk dudleya
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca perennis - Italian rye grass
Hainardia cylindrica - Thin tail
Hypochaeris glabra - smooth cat's ear
Logfia gallica - narrowleaf cottonrose
Lomatium dasycarpum - woollyfruit desertparsley
Mesembryanthemum crystallinum - common iceplant
Mirabilis laevis - desert wishbone bush
Pseudognaphalium beneolens - cudweed
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Sisyrinchium bellum - Western blue-eyed grass
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1600



Photo taken: 5/9/2019

Photo location is -117.0045645, 32.57827346 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1601

Photopoint X: -117.00432730800

Photopoint Y: 32.57837879000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 70.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 3:06 PM

Survey End Time: 3:33 PM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Artemisia californica - coastal sagebrush	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Psilocarphus brevissimus - woolly marble	<1%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Festuca myuros - rattle sixweeks grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1601

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus splendens - splendid mariposa lily
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dittrichia graveolens - Stinkwort
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Gastridium phleoides - nit grass
Hainardia cylindrica - Thin tail
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Phalaris minor - littleseed canarygrass
Polypogon monspeliensis - annual rabbitsfoot grass
Psilocarphus tenellus - short woollyheads
Rhus integrifolia - lemonade berry
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1601



Photo taken: 5/9/2019

Photo location is -117.0043273, 32.57837879 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

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Complex Name: City_Robinhood_Ridge

VP_ID: 1602

Photopoint X: -117.00429570900

Photopoint Y: 32.57831965600

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 90.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.5

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 3:36 PM

Survey End Time:

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 50-75% Native Species Richness in Basin: 7

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1602

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium moschatum - Musky stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Helminthotheca echioides - bristly oxtongue
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1602



Photo taken: 5/9/2019

Photo location is -117.0042957, 32.57831966 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1603

Photopoint X: -117.00408482000

Photopoint Y: 32.57832870800

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 9:15 AM

Survey End Time: 9:38 AM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra sp. - tarplant	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Helminthotheca echioides - bristly oxtongue	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Spergularia bocconi - sand spurry	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1603

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra sp. - tarplant
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hainardia cylindrica - Thin tail
Helminthotheca echioides - bristly oxtongue
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Polypogon monspeliensis - annual rabbitsfoot grass
Rhus integrifolia - lemonade berry
Sonchus asper - spiny sowthistle
Stipa pulchra - purple needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 1603



Photo taken: 5/14/2019

Photo location is -117.0040848, 32.57832871 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1604

Photopoint X: -117.00502043000

Photopoint Y: 32.57806301640

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 20.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 10:30 AM

Survey End Time: 11:56 AM

Surveyors: Diana Brand-Ramirez, Ninfa Negrete

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	<1%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	<1%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 6

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Festuca myuros - rattle tail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Hedypnois cretica - Cretanweed	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Lamarckia aurea - goldentop grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 13

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1604

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hedypnois cretica - Cretanweed
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Lythrum hyssopifolia - hyssop loosestrife
Matricaria discoidea - pineapple weed
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia oricola - chaparral pricklypear
Pseudognaphalium beneolens - cudweed
Pseudognaphalium sp. - cudweed
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1604



Photo taken: 5/14/2019

Photo location is -117.00502043000, 32.57806301640 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

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Complex Name: City_Robinhood_Ridge

VP_ID: 1606

Photopoint X: -117.00458672800

Photopoint Y: 32.57818801800

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 9:44 AM

Survey End Time: 10:02 AM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 1

Bare Ground Cover in Basin 50-75%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1606

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hypochaeris glabra - smooth cat's ear
Linanthus dianthiflorus - ground pink
Logfia gallica - narrowleaf cottonrose
Matricaria discoidea - pineapple weed
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium beneolens - cudweed
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Stipa pulchra - purple needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1606



Photo taken: 5/14/2019

Photo location is -117.0045867, 32.57818802 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1607

Photopoint X: -117.00438405400

Photopoint Y: 32.57817016500

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 11:43 AM

Survey End Time: 12:07 PM

Surveyors: Maya Mazon, Sean Paver

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Psilocarphus brevissimus - woolly marble	50-75%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Festuca myuros - rattail sixweeks grass	<1%
Phalaris minor - littleseed canarygrass	<1%
Polypogon interruptus - ditch rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1607

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hedypnois cretica - Cretanweed
Hypochaeris glabra - smooth cat's ear
Logfia gallica - narrowleaf cottonrose
Lomatium dasycarpum - Lace parsnip
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Pseudognaphalium canescens - Wright's cudweed
Psilocarphus brevissimus - woolly marble
Sonchus oleraceus - common sowthistle
Spergularia sp. - Sand spurrey
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1607



Photo taken: 5/14/2019

Photo location is -117.0043841, 32.57817017 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1608

Photopoint X: -117.00430015100

Photopoint Y: 32.57815746600

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 20.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 10:58 AM

Survey End Time: 11:40 AM

Surveyors: Maya Mazon, Sean Paver

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 50-75% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Festuca perennis - Italian rye grass	<1%
Hainardia cylindrica	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Phalaris minor - littleseed canarygrass	<1%
Spargularia sp.	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 10

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1608

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cotula coronopifolia - common brassbuttons
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Gastridium phleoides - nit grass
Hypochaeris glabra - smooth cat's ear
Linanthus dianthiflorus - ground pink
Logfia gallica - narrowleaf cottonrose
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Pogogyne nudiuscula - Otay mesa mint
Polypogon monspeliensis - annual rabbitsfoot grass
Pseudognaphalium canescens - Wright's cudweed
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Sonchus oleraceus - common sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1608



Photo taken: 5/14/2019

Photo location is -117.0043002, 32.57815747 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1609

Photopoint X: -117.00369189600

Photopoint Y: 32.57723260770

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 40.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 11:19 AM

Survey End Time: 11:49 AM

Surveyors: Sara Allen , Lisa Wood

VPHCP Covered Species Present:ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Matricaria discoidea - pineapple weed	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1609

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calochortus dunnii - Dunn's mariposa lily
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dittrichia graveolens - Stinkwort
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Logfia gallica - narrowleaf cottonrose
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris aquatica - harding Grass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass

Notes/Comments: Photopoint is point 189 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1609



Photo taken: 5/9/2019

Photo location is -117.0036919, 32.57723261 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1666

Photopoint X: -117.00472712500

Photopoint Y: 32.57792558100

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 60.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 11:07 AM

Survey End Time: 11:31 AM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	<1%
Juncus bufonius - toad rush	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 6

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Festuca myuros - rattail sixweeks grass	<1%
Gastridium phleoides - nit grass	<1%
Hainardia cylindrica	<1%
Matricaria discoidea - pineapple weed	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? yes

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1666

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hainardia cylindrica - Thin tail
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Matricaria discoidea - pineapple weed
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1666



Photo taken: 5/174/2019
Photo location is -117.0047271, 32.57792558 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1667

Photopoint X: -117.00444042500

Photopoint Y: 32.57795469730

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 10:27 AM

Survey End Time: 11:06 AM

Surveyors: Sara Allen, Lisa Wood

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	<1%
Psilocarphus brevissimus - woolly marble	10-25%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1667

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Artemisia palmeri - San Diego sagewort
Avena fatua - wild oat
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum gracile - slender buckwheat
Erodium botrys - longbeak stork's bill
Erodium moschatum - Musky stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hypochaeris glabra - smooth cat's ear
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Opuntia littoralis - coastal pricklypear
Pseudognaphalium stramineum - cottonbatting plant
Salsola tragus - prickly Russian thistle
Sisyrinchium bellum - Western blue-eyed grass
Sonchus asper - spiny sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1667



Photo taken: 5/9/2019

Photo location is -117.004444042500, 32.57795469730 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1668

Photopoint X: -117.00382976200

Photopoint Y: 32.57814166390

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 75.0 Baseline Cover of NAFO: 0.5 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 5.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 10:32 AM

Survey End Time: 11:17 AM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR,PONU,NAFO

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin: <1%

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Deschampsia danthonioides - annual hairgrass	<1%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Pseudognaphalium stramineum - cottonbatting plant	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 9

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Phalaris minor - littleseed canarygrass	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 10

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1668

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chamaesyce maculata - spotted spurge
Chenopodium murale - nettleleaf goosefoot
Cylindropuntia californica - California cholla
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca perennis - Italian rye grass
Isocoma menziesii - Menzies' goldenbush
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Phalaris minor - littleseed canarygrass
Pseudognaphalium stramineum - cottonbatting plant
Psilocarphus brevissimus - woolly marble
Salsola tragus - prickly Russian thistle
Salvia mellifera - black sage
Sonchus asper - spiny sowthistle
Spergularia villosa - hairy sand spurry
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 1668



Photo taken: 5/9/2019

Photo location is -117.00382976200, 32.57814166390 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1669

Photopoint X: -117.00393568000

Photopoint Y: 32.57803266000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 45.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 11:32 AM

Survey End Time: 12:10 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Cylindropuntia californica - California cholla	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Deschampsia danthonioides - annual hairgrass	<1%
Juncus bufonius - toad rush	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 8

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1669

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Avena barbata - slender oat
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chamaesyce maculata - spotted spurge
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia californica - California cholla
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Lysimachia arvensis - scarlet pimpernel
Lythrum hyssopifolia - hyssop loosestrife
Mesembryanthemum nodiflorum - slender leaved ice plant
Myosurus minimus - little mouse tail
Navarretia fossalis - Spreading navarretia
Phytolacca americana - Pokeweed
Pogogyne nudiuscula - Otay mesa mint
Pseudognaphalium beneolens - cudweed
Psilocarphus brevissimus - woolly marble
Salsola tragus - prickly Russian thistle
Salvia mellifera - black sage
Sonchus asper - spiny sowthistle
Stipa pulchra - purple needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1669



Photo taken: 5/9/2019

Photo location is -117.0039357, 32.57803266 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1670

Photopoint X: -117.00404593600

Photopoint Y: 32.57769258100

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 5.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 1:48 PM

Survey End Time: 2:20 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR,POAB

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin <1%

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	5-10%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Atriplex semibaccata - Australian saltbush	<1%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 11

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1670

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Atriplex semibaccata - Australian saltbush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Salvia mellifera - black sage
Sisymbrium sp. - mustard
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: Photopoint is point 191 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1670



Photo taken: 5/9/2019

Photo location is -117.0040459, 32.57769258 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1671

Photopoint X: -117.00418941900

Photopoint Y: 32.57811877200

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 85.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 10:04 AM

Survey End Time: 10:47 AM

Surveyors: Jason Allen, Sara Allen, Sean Paver, Holly Smit-Kicklighter, Jane Marie Fajardo, Maya

Mazon VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 50-75% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca perennis - Italian rye grass	<1%
Gastridium phleoides - nit grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Sonchus oleraceus - common sowthistle	<1%
Spergularia sp.	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 12

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Artemisia californica

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1671

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dittrichia graveolens - Stinkwort
Encelia californica - California brittlebush
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Psilocarphus tenellus - short woollyheads
Rhus integrifolia - lemonade berry
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: Sara Allen emailed photos to Jason Allen

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1671



Photo taken: 5/10/2019

Photo location is -117.0041894, 32.57811877 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1672

Photopoint X: -117.00401425200

Photopoint Y: 32.57771828100

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 2:27 PM

Survey End Time: 2:43 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Psilocarphus brevissimus - woolly marble	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	1-5%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Festuca perennis - Italian rye grass	1-5%
Phalaris minor - littleseed canarygrass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1672

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Avena barbata - slender oat
Baccharis sarothroides - desertbroom
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Glebionis coronaria - crown daisy
Lysimachia arvensis - scarlet pimpernel
Mesembryanthemum crystallinum - common iceplant
Phalaris minor - littleseed canarygrass
Salsola tragus - prickly Russian thistle
Stipa lepida - foothill needlegrass

Notes/Comments: Photopoint is point 193 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1672



Photo taken: 5/9/2019

Photo location is -117.0040143, 32.57771828 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1673

Photopoint X: -117.00382415600

Photopoint Y: 32.57735436770

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 80.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 2:45 PM

Survey End Time: 3:03 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Juncus bufonius - toad rush	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	50-75%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Phalaris minor - littleseed canarygrass	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: 50-75% Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 25-50% Cover of Rocks/Cobble in Basin: 5-10% Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1673

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Atriplex semibaccata - Australian saltbush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hypochaeris glabra - smooth cat's ear
Logfia gallica - narrowleaf cottonrose
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba

Notes/Comments: Photopoint is point 195 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1673



Photo taken: 5/9/2019

Photo location is -117.0038242, 32.57735437 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1675

Photopoint X: -117.00456870700

Photopoint Y: 32.57776448000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 80.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 10:09 AM

Survey End Time:

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	1-5%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Glebionis coronaria - crown daisy	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Lamarckia aurea - goldentop grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Matricaria discoidea - pineapple weed	<1%
Mesembryanthemum crystallinum - common iceplant	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 11

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1675

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Dichelostemma capitatum - bluedicks
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phacelia minor - California bluebell
Polypogon monspeliensis - annual rabbitsfoot grass
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 1675



Photo taken: 5/14/2019

Photo location is -117.0045687, 32.57776448 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1676

Photopoint X: -117.00443132800

Photopoint Y: 32.57770790300

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 10.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 10:36 AM

Survey End Time:

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	10-25%
Juncus bufonius - toad rush	<1%
Psilocarphus brevissimus - woolly marble	<1%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Glebionis coronaria - crown daisy	<1%
Lamarckia aurea - goldentop grass	1-5%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: 1-5% Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 10-25% Cover of Rocks/Cobble in Basin: 10-25% Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1676

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Cylindropuntia californica - California cholla
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Hainardia cylindrica - Thin tail
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Lamarckia aurea - goldentop grass
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Rhus integrifolia - lemonade berry
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1676



Photo taken: 5/14/2019

Photo location is -117.0044313, 32.5777079 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1677

Photopoint X: -117.00427923000

Photopoint Y: 32.57773626000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 12:41 PM

Survey End Time:

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Juncus bufonius - toad rush	<1%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	1-5%
Centaurea melitensis - Maltese star-thistle	<1%
Festuca myuros - rattle tail sixweeks grass	1-5%
Hedypnois cretica - Cretanweed	1-5%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Matricaria discoidea - pineapple weed	1-5%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris minor - littleseed canarygrass	1-5%

Cover of Nonnative Species in Basin: 10-25% Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1677

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Cylindropuntia californica - California cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Hypochaeris glabra - smooth cat's ear
Matricaria discoidea - pineapple weed
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Yucca schidigera - Mojave yucca

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1677



Photo taken: 5/14/2019

Photo location is -117.0042792, 32.57773626 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1678

Photopoint X: -117.00438977000

Photopoint Y: 32.57768252000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 80.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 1:04 PM

Survey End Time:

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	10-25%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 2

Nonnative Species in Pool

Species Name	Cover
Beta vulgaris	1-5%
Bromus madritensis - compact brome	1-5%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Glebionis coronaria - crown daisy	1-5%
Lamarckia aurea - goldentop grass	1-5%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1678

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Dichelostemma capitatum - bluedicks
Eleocharis macrostachya - common spikerush
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Juncus bufonius - toad rush
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Lythrum hyssopifolia - hyssop loosestrife
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Stephanomeria diegensis - San Diego milk aster

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1678



Photo taken: 5/14/2019

Photo location is -117.0043898, 32.57768252 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1679

Photopoint X: -117.11220462400

Photopoint Y: 32.94327997630

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 5.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 12:40 PM

Survey End Time: 1:13 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Eleocharis macrostachya - common spikerush	5-10%
Juncus bufonius - toad rush	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Lamarckia aurea - goldentop grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Matricaria discoidea - pineapple weed	<1%
Medicago polymorpha - burclover	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 1-5% Nonnative Species Richness in Basin: 14

Bare Ground Cover in Basin 10-25% Cover of Rocks/Cobble in Basin: 5-10% Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1679

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Atriplex semibaccata - Australian saltbush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Encelia californica - California brittlebush
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Hypochaeris glabra - smooth cat's ear
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Mammillaria dioica - fish hook cactus
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Mirabilis laevis - desert wishbone bush
Oncosiphon piluliferum - stinknet
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Schismus barbatus - common Mediterranean grass
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Stephanomeria diegensis - San Diego milk aster

Notes/Comments: Photopoint is point 215 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1679



Photo taken: 5/14/2019

Photo location is -117.1122046, 32.94327998 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1684

Photopoint X: -117.02754795000

Photopoint Y: 32.56175918410

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 50.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.5

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 1:31 PM

Survey End Time: 2:20 PM

Surveyors: Jason Allen

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Juncus bufonius - toad rush	<1%
Psilocarphus tenellus - short woollyheads	10-25%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Beta vulgaris	<1%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Gastridium phleoides - nit grass	<1%
Lamarckia aurea - goldentop grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Matricaria discoidea - pineapple weed	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris minor - littleseed canarygrass	<1%
Sonchus oleraceus - common sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 12

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 10-25%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Artemisia californica

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1684

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum elongatum - longstem buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Hordeum murinum - mouse barley
Hypochaeris glabra - smooth cat's ear
Juncus bufonius - toad rush
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Medicago polymorpha - burclover
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Oncosiphon piluliferum - stinknet
Opuntia littoralis - coastal pricklypear
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus oleraceus - common sowthistle
Stephanomeria diegensis - San Diego milk aster
Stipa lepida - foothill needlegrass

Notes/Comments: Photopoint is point 206 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1684



Photo taken: 5/10/2019

Photo location is -117.027548, 32.56175918 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1685

Photopoint X: -117.07969172900

Photopoint Y: 32.71926120120

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 10:16 AM

Survey End Time: 10:53 AM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Artemisia californica - coastal sagebrush	<1%
Bahiopsis laciniata - torhleaf goldeneye	5-10%
Crassula connata - sand pygmyweed	1-5%
Deinandra fasciculata - clustered tarweed	25-50%
Encelia californica - California brittlebush	1-5%

Cover of Other Native Species in Basin 50-75% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Atriplex semibaccata - Australian saltbush	<1%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	5-10%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Lamarckia aurea - goldentop grass	1-5%
Logfia gallica - narrowleaf cottonrose	<1%
Matricaria discoidea - pineapple weed	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	1-5%
Phalaris minor - littleseed canarygrass	1-5%

Cover of Nonnative Species in Basin: 10-25% Nonnative Species Richness in Basin: 11

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1685

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Acmispon glaber - deerweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Medicago polymorpha - burclover
Mesembryanthemum crystallinum - common iceplant
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: Photopoint is point 213 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 1685



Photo taken: 5/14/2019

Photo location is -117.0796917, 32.7192612 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

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Complex Name: City_Robinhood_Ridge

VP_ID: 1688

Photopoint X: -117.00393845300

Photopoint Y: 32.57751086440

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 10.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 11:02 AM

Survey End Time: 11:40 AM

Surveyors: Jason Allen, Jane Fajardo

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Eleocharis macrostachya - common spikerush	<1%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 8

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	1-5%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Artemisia californica

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1688

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Chenopodium murale - nettleleaf goosefoot
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Glebionis coronaria - crown daisy
Lamarckia aurea - goldentop grass
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Psilocarphus tenellus - short woollyheads
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: Photopoint is point 201 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1688



Photo taken: 5/10/2019

Photo location is -117.0039385, 32.57751086 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

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Complex Name: City_Robinhood_Ridge

VP_ID: 1689

Photopoint X: -117.00400451900

Photopoint Y: 32.57762321440

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 85.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 11:43 AM

Survey End Time: 12:19 PM

Surveyors: Jason Allen, Jane Fajardo

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Juncus bufonius - toad rush	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	1-5%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	1-5%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Salsola tragus

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1689

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eleocharis macrostachya - common spikerush
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Glebionis coronaria - crown daisy
Juncus bufonius - toad rush
Matricaria discoidea - pineapple weed
Myosurus minimus - little mouse tail
Phalaris minor - littleseed canarygrass
Pogogyne nudiuscula - Otay mesa mint
Rhus integrifolia - lemonade berry
Silene gallica - common catchfly
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Sonchus oleraceus - common sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: Photopoint is point 204 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1689



Photo taken: 5/10/2019

Photo location is -117.0040045, 32.57762321 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1691

Photopoint X: -117.00416755200

Photopoint Y: 32.57763326440

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 50.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 3:07 PM

Survey End Time: 3:28 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	1-5%
Bromus madritensis - compact brome	1-5%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Festuca perennis - Italian rye grass	1-5%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1691

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Camissoniopsis hirtella - hairy suncup
Centaurea melitensis - Maltese star-thistle
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eleocharis macrostachya - common spikerush
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Glebionis coronaria - crown daisy
Lysimachia arvensis - scarlet pimpernel
Lysimachia minima - chaffweed
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Polypogon monspeliensis - annual rabbitsfoot grass
Rhus integrifolia - lemonade berry
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: Photopoint is point 196 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1691



Photo taken: 5/9/2019

Photo location is -117.0041676, 32.57763326 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1692

Photopoint X: -117.00366414600

Photopoint Y: 32.57759432770

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 95.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 3:35 PM

Survey End Time: 4:03 PM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Crassula aquatica - Aquatic pygmy weed	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Eleocharis macrostachya - common spikerush	10-25%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 8

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	<1%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris minor - littleseed canarygrass	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	1-5%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 1-5%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Artemisia californica

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1692

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brachypodium distachyon - purple false brome
Brassica nigra - black mustard
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chamaesyce maculata - spotted spurge
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Hypochaeris glabra - smooth cat's ear
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Sonchus oleraceus - common sowthistle

Notes/Comments: Photopoint is point 198 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1692



Photo taken: 5/9/2019

Photo location is -117.0036641, 32.57759433 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1693

Photopoint X: -117.07960292900

Photopoint Y: 32.71916396790

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 10.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 11:05 AM

Survey End Time: 11:35 AM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Artemisia californica - coastal sagebrush	<1%
Crassula connata - sand pygmyweed	<1%
Deinandra fasciculata - clustered tarweed	25-50%
Myosurus minimus - little mouse tail	<1%
Plantago elongata - annual coast plantago	1-5%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 50-75% Native Species Richness in Basin: 7

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	1-5%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Lamarckia aurea - goldentop grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Matricaria discoidea - pineapple weed	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	1-5%
Phalaris minor - littleseed canarygrass	<1%
Salsola tragus - prickly Russian thistle	<1%
Sonchus asper - spiny sowthistle	<1%
Spergularia bocconi - sand spurry	<1%

Cover of Nonnative Species in Basin: 10-25% Nonnative Species Richness in Basin: 12

Bare Ground Cover in Basin 10-25% Cover of Rocks/Cobble in Basin: 5-10% Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1693

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia californica - California cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Helminthotheca echioides - bristly oxtongue
Heteromeles arbutifolia - toyon
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: Photopoint is point 214 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1693



Photo taken: 5/14/2019

Photo location is -117.0796029, 32.71916397 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1694

Photopoint X: -117.00435820025

Photopoint Y: 32.57507410024

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR:	2.0	Baseline Cover of NAFO:	0.0	Baseline Cover of ORCA:	0.0
Baseline Cover of POAB:	0.0	Baseline Cover of PONU:	0.0		

2019 Quantitative Monitoring Data

Survey Date 7/10/2019

Survey Start Time: 3:01 PM

Survey End Time: 3:01 PM

Surveyors: Jason Allen, Diana Brand Ramirez, Jessie Lane

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	25-50%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 1

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	1-5%
Erodium sp. - stork's bill	5-10%
Lamarckia aurea - goldentop grass	<1%
Matricaria discoidea - pineapple weed	1-5%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 10-25% Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 5-10% Cover of Rocks/Cobble in Basin: 10-25% Cover of Litter in Basin: 5-10%

Days Since Last Rain >16

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1694

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Chlorogalum parviflorum - smallflower soap plant
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium sp. - stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Glebionis coronaria - crown daisy
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Psilocarphus tenellus - short woollyheads
Salsola tragus - prickly Russian thistle
Selaginella cinerascens - mesa spikemoss

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 1694



Photo taken: 7/10/2019

Photo location is -117.0043582, 32.5750741 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1696

Photopoint X: -117.00387098000

Photopoint Y: 32.57760772000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 15.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 10.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 3:14 PM

Survey End Time: 3:50 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 5-10%

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	<1%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium cicutarium - redstem stork's bill	<1%
Lamarckia aurea - goldentop grass	<1%
Lysimachia arvensis - scarlet pimpernel	1-5%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	1-5%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1696

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Chamaesyce albomarginata - Rattlesnake sandmat
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Glebionis coronaria - crown daisy
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Salsola tragus - prickly Russian thistle
Silene gallica - common catchfly
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1696



Photo taken: 5/10/2019

Photo location is -117.003871, 32.57760772 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1697

Photopoint X: -117.00383251400

Photopoint Y: 32.57754720950

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 1.0	Baseline Cover of NAFO: 0.5	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 2.0	

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 9:32 AM

Survey End Time: 10:12 AM

Surveyors: Cheryl Jenkins

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Chamaesyce albomarginata - Rattlesnake sandmat	<1%
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	1-5%
Myosurus minimus - little mouse tail	<1%
Psilocarphus brevissimus - woolly marble	1-5%
Zeltnera venusta - charming centaury	<1%

Cover of Other Native Species in Basin 10-25%

Native Species Richness in Basin: 8

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Glebionis coronaria - crown daisy	<1%
Lamarckia aurea - goldentop grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	1-5%
Silene gallica - common catchfly	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 11

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1697

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Antirrhinum nuttallianum - Nuttall's snapdragon
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chamaesyce albomarginata - Rattlesnake sandmat
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium moschatum - Musky stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Hypochaeris glabra - smooth cat's ear
Isocoma menziesii - Menzies' goldenbush
Lamarckia aurea - goldentop grass
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Pogogyne nudiuscula - Otay mesa mint
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Salvia mellifera - black sage
Silene gallica - common catchfly
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1697



Photo taken: 5/9/2019

Photo location is -117.00383251400, 32.57754720950 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1698

Photopoint X: -117.07981086300

Photopoint Y: 32.71907185130

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 1.0	

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 2:28 PM

Survey End Time: 3:39 PM

Surveyors: Jason Allen

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	1-5%
Deinandra fasciculata - clustered tarweed	10-25%
Plantago elongata - annual coast plantago	1-5%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattle tail sixweeks grass	<1%
Lamarckia aurea - goldentop grass	<1%
Logfia gallica - narrowleaf cottonrose	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Matricaria discoidea - pineapple weed	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris aquatica - harding Grass	<1%
Phalaris minor - littleseed canarygrass	<1%
Sonchus oleraceus - common sowthistle	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 12

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Artemisia californica, Salsola tragus

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1698

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chenopodium californicum - California goosefoot
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Eriogonum elongatum - longstem buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Heteromeles arbutifolia - toyon
Lamarckia aurea - goldentop grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Silene gallica - common catchfly
Simmondsia chinensis - jojoba
Sonchus oleraceus - common sowthistle
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: Photopoint is point 209 in "My GPS" Collector App

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1698



Photo taken: 5/10/2019
Photo location is -117.0798109, 32.71907185 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1699

Photopoint X: -117.07986774600

Photopoint Y: 32.71918606790

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 5.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 2.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 3:42 PM

Survey End Time: 4:17 PM

Surveyors: Jason Allen

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	1-5%
Bromus madritensis - compact brome	1-5%
Erodium botrys - longbeak stork's bill	5-10%
Festuca myuros - rattail sixweeks grass	1-5%
Lamarckia aurea - goldentop grass	1-5%
Matricaria discoidea - pineapple weed	1-5%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris minor - littleseed canarygrass	<1%
Sonchus oleraceus - common sowthistle	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: Artemisia californica

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1699

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Erigeron canadensis - Canada horseweed
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Glebionis coronaria - crown daisy
Lamarckia aurea - goldentop grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Psilocarphus tenellus - short woollyheads
Rhus integrifolia - lemonade berry
Silene gallica - common catchfly
Simmondsia chinensis - jojoba
Stipa lepida - foothill needlegrass
Zeltnera venusta - charming centaury

Notes/Comments: Photopoint is point 211 in "My GPS" Collector App

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1699



Photo taken: 5/10/2019

Photo location is -117.0798677, 32.71918607 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1700

Photopoint X: -117.00382950600

Photopoint Y: 32.57736463770

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 75.0 Baseline Cover of NAFO: 2.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 5.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 1:48 PM

Survey End Time: 2:19 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 10-25%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	1-5%
Deinandra fasciculata - clustered tarweed	10-25%
Psilocarphus tenellus - short woollyheads	25-50%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Lamarckia aurea - goldentop grass	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Matricaria discoidea - pineapple weed	5-10%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris minor - littleseed canarygrass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 25-50%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1700

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Castilleja sp. - owl's clover
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Hordeum murinum - mouse barley
Lamarckia aurea - goldentop grass
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Silene gallica - common catchfly
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: Photopoint is point 192 in "My GPS" Collector App

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1700



Photo taken: 5/9/2019
Photo location is -117.0038295, 32.57736464 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1701

Photopoint X: -117.01017251978

Photopoint Y: 32.58120695015

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 11:14 AM

Survey End Time: 11:47 AM

Surveyors: Sara Allen, Holly Smit-Kicklighter

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 25-50%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium cicutarium - redstem stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	<1%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1701

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calystegia macrostegia - island false bindweed
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Hainardia cylindrica - Thin tail
Lamarckia aurea - goldentop grass
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Psilocarphus tenellus - short woollyheads
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Salvia mellifera - black sage
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Sonchus oleraceus - common sowthistle
Stipa pulchra - purple needlegrass

Notes/Comments: None

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1701



Photo taken: 5/10/2019
Photo location is -117.0101725, 32.58120695 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1702

Photopoint X: -117.00389274985

Photopoint Y: 32.57736251018

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 10.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 1.0

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 11:48 AM

Survey End Time: 1:44 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Plantago erecta - California plantain	<1%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium cicutarium - redstem stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	<1%

Cover of Nonnative Species in Basin: 1-5%

Nonnative Species Richness in Basin: 6

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? yes

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1702

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Heliotropium curassavicum - salt heliotrope
Hypochaeris glabra - smooth cat's ear
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Matricaria discoidea - pineapple weed
Melilotus indica - annual yellow sweetclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Peritoma arborea - bladderpod spiderflower
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: None

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1702



Photo taken: 5/10/2019
Photo location is -117.0038927, 32.57736251 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1703

Photopoint X: -117.00374316996

Photopoint Y: 32.57741017036

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.5

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 1:51 PM

Survey End Time: 2:08 PM

Surveyors: Sara Allen

VPHCP Covered Species Present:

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	10-25%
Psilocarphus brevissimus - woolly marble	<1%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Bromus diandrus - ripgut brome	1-5%
Bromus hordeaceus - soft brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium cicutarium - redstem stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	<1%
Melilotus indica - annual yellow sweetclover	<1%
Phalaris minor - littleseed canarygrass	<1%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 5-10% Nonnative Species Richness in Basin: 8

Bare Ground Cover in Basin 25-50% Cover of Rocks/Cobble in Basin: 10-25% Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1703

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Avena fatua - wild oat
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Helminthotheca echioides - bristly oxtongue
Hordeum murinum - mouse barley
Hypochaeris glabra - smooth cat's ear
Lactuca serriola - prickly lettuce
Lamarckia aurea - goldentop grass
Matricaria discoidea - pineapple weed
Melilotus indica - annual yellow sweetclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Peritoma arborea - bladderpod spiderflower
Phalaris minor - littleseed canarygrass
Poa secunda - one sided blue grass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Sonchus oleraceus - common sowthistle
Stephanomeria sp. -

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1703



Photo taken: 5/10/2019

Photo location is -117.0037432, 32.57741017 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1705

Photopoint X: -117.00367546000

Photopoint Y: 32.57759759000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.5	

2019 Quantitative Monitoring Data

Survey Date 5/10/2019

Survey Start Time: 2:14 PM

Survey End Time: 2:53 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: ERAR,PONU

Cover of ERAR in Basin 1-5%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	<1%
Chamaesyce albomarginata - Rattlesnake sandmat	<1%
Deinandra fasciculata - clustered tarweed	5-10%
Eleocharis macrostachya - common spikerush	1-5%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50%

Native Species Richness in Basin: 6

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	1-5%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium cicutarium - redstem stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Festuca perennis - Italian rye grass	1-5%
Glebionis coronaria - crown daisy	<1%
Lysimachia arvensis - scarlet pimpernel	1-5%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris aquatica - harding Grass	1-5%
Phalaris minor - littleseed canarygrass	5-10%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Sonchus asper - spiny sowthistle	<1%
Sonchus oleraceus - common sowthistle	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 15

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1705

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Antirrhinum nuttallianum - Nuttall's snapdragon
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Centaurea melitensis - Maltese star-thistle
Chamaesyce albomarginata - Rattlesnake sandmat
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Festuca perennis - Italian rye grass
Glebionis coronaria - crown daisy
Hedypnois cretica - Cretanweed
Helminthotheca echioides - bristly oxtongue
Heteromeles arbutifolia - toyon
Hordeum murinum - mouse barley
Lamarckia aurea - goldentop grass
Matricaria discoidea - pineapple weed
Mesembryanthemum nodiflorum - slender leaved ice plant
Polypogon monspeliensis - annual rabbitsfoot grass
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Salvia mellifera - black sage
Zeltnera venusta - charming centaury

Notes/Comments: None

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1705



Photo taken: 5/10/2019
Photo location is -117.0036755, 32.57759759 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1706

Photopoint X: -117.07976237900

Photopoint Y: 32.71926635130

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.0	Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 10.0	

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 9:16 AM

Survey End Time: 9:56 AM

Surveyors: Jason Allen, Jessie Lane

VPHCP Covered Species Present: PONU

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 1-5%

Other Native Species in Pool:

Species Name	Cover
Baccharis sarothroides - desertbroom	1-5%
Deinandra fasciculata - clustered tarweed	1-5%

Cover of Other Native Species in Basin 5-10%

Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Brassica nigra - black mustard	<1%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	1-5%
Festuca myuros - rattail sixweeks grass	1-5%
Glebionis coronaria - crown daisy	5-10%
Hainardia cylindrica	5-10%
Helminthotheca echioides - bristly oxtongue	<1%
Matricaria discoidea - pineapple weed	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris minor - littleseed canarygrass	5-10%
Polypogon monspeliensis - annual rabbitsfoot grass	<1%
Salsola tragus - prickly Russian thistle	<1%
Sonchus asper - spiny sowthistle	<1%
Sonchus oleraceus - common sowthistle	<1%

Cover of Nonnative Species in Basin: 25-50%

Nonnative Species Richness in Basin: 16

Bare Ground Cover in Basin 25-50%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1706

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Artemisia californica - coastal sagebrush
Avena barbata - slender oat
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Helminthotheca echioides - bristly oxtongue
Lactuca serriola - prickly lettuce
Lysimachia arvensis - scarlet pimpernel
Melilotus indica - annual yellow sweetclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle
Sonchus oleraceus - common sowthistle
Stephanomeria diegensis - San Diego milk aster

Notes/Comments: Photopoint is point 212 in "My GPS" Collector App

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1706



Photo taken: 5/14/2019
Photo location is -117.0797624, 32.71926635 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1708

Photopoint X: -117.00381959993

Photopoint Y: 32.57722781018

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 3.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 3:12 PM

Survey End Time: 3:33 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: PONU

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin 10-25%

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	10-25%
Psilocarphus brevissimus - woolly marble	10-25%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 3

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Carrichtera annua	<1%
Festuca myuros - rattle sixweeks grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Melilotus indica - annual yellow sweetclover	<1%
Phalaris minor - littleseed canarygrass	5-10%

Cover of Nonnative Species in Basin: 5-10%

Nonnative Species Richness in Basin: 7

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1708

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Isocoma menziesii - Menzies' goldenbush
Logfia gallica - narrowleaf cottonrose
Lysimachia arvensis - scarlet pimpernel
Melilotus indica - annual yellow sweetclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Pogogyne nudiuscula - Otay mesa mint
Rhus integrifolia - lemonade berry
Salvia mellifera - black sage
Sonchus asper - spiny sowthistle
Sonchus oleraceus - common sowthistle
Stipa lepida - foothill needlegrass

Notes/Comments: None

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1708



Photo taken: 5/9/2019
Photo location is -117.0038196, 32.57722781 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1709

Photopoint X: -117.00369809051

Photopoint Y: 32.57723834037

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 3:48 PM

Survey End Time: 4:04 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: PONU

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	50-75%
Psilocarphus brevissimus - woolly marble	1-5%

Cover of Other Native Species in Basin 50-75% Native Species Richness in Basin: 2

Nonnative Species in Pool

Species Name	Cover
Beta vulgaris	1-5%
Bromus hordeaceus - soft brome	1-5%
Bromus madritensis - compact brome	<1%
Carrichtera annua	<1%
Centaurea melitensis - Maltese star-thistle	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	1-5%
Hainardia cylindrica	<1%
Hedypnois cretica - Cretanweed	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Phalaris minor - littleseed canarygrass	10-25%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 25-50% Nonnative Species Richness in Basin: 12

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 5-10%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1709

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Avena fatua - wild oat
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus diandrus - ripgut brome
Bromus hordeaceus - soft brome
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Deinandra fasciculata - clustered tarweed
Encelia californica - California brittlebush
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Hedypnois cretica - Cretanweed
Helminthotheca echioides - bristly oxtongue
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Matricaria discoidea - pineapple weed
Melilotus indica - annual yellow sweetclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Salsola tragus - prickly Russian thistle
Sonchus asper - spiny sowthistle

Notes/Comments: None

Robinhood Ridge

Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1709



Photo taken: 5/9/2019

Photo location is -117.0036981, 32.57723834 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1710

Photopoint X: -117.00374295169

Photopoint Y: 32.57729704310

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 90.0 Baseline Cover of NAFO: 0.5 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 10.0

2019 Quantitative Monitoring Data

Survey Date 5/9/2019

Survey Start Time: 2:36 PM

Survey End Time: 3:06 PM

Surveyors: Sara Allen

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin 50-75%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Cylindropuntia prolifera - coastal cholla	<1%
Deinandra fasciculata - clustered tarweed	25-50%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 50-75%

Native Species Richness in Basin: 4

Nonnative Species in Pool

Species Name	Cover
Bromus hordeaceus - soft brome	1-5%
Bromus madritensis - compact brome	<1%
Carrichtera annua	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca myuros - rattail sixweeks grass	<1%
Lysimachia arvensis - scarlet pimpernel	<1%
Matricaria discoidea - pineapple weed	<1%
Phalaris minor - littleseed canarygrass	5-10%
Sonchus asper - spiny sowthistle	<1%

Cover of Nonnative Species in Basin: 10-25%

Nonnative Species Richness in Basin: 9

Bare Ground Cover in Basin 5-10%

Cover of Rocks/Cobble in Basin: 10-25%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_Robinhood_Ridge

VP_ID: 1710

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Artemisia californica - coastal sagebrush
Baccharis sarothroides - desertbroom
Bahiopsis laciniata - torhleaf goldeneye
Beta vulgaris - beet
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Calystegia macrostegia - island false bindweed
Carrichtera annua - Ward's weed
Centaurea melitensis - Maltese star-thistle
Crassula connata - sand pygmyweed
Cylindropuntia prolifera - coastal cholla
Daucus pusillus - American wild carrot
Deinandra fasciculata - clustered tarweed
Deschampsia danthonioides - annual hairgrass
Encelia californica - California brittlebush
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Erodium cicutarium - redstem stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Ferocactus viridescens - San Diego barrel cactus
Festuca myuros - rattail sixweeks grass
Glebionis coronaria - crown daisy
Helminthotheca echioides - bristly oxtongue
Hypochaeris glabra - smooth cat's ear
Lysimachia arvensis - scarlet pimpernel
Matricaria discoidea - pineapple weed
Melilotus indica - annual yellow sweetclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Opuntia littoralis - coastal pricklypear
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble
Rhus integrifolia - lemonade berry
Salsola tragus - prickly Russian thistle
Salvia mellifera - black sage
Simmondsia chinensis - jojoba
Sonchus asper - spiny sowthistle

Notes/Comments: None

Robinhood Ridge
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1710



Photo taken: 5/9/2019
Photo location is -117.003743, 32.57729704 NAD83 State Plane California Zone 6 (feet)

Sanders

Planning Unit: Central

Land Owner: City of San Diego

Managing Department: Public Utilities

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Sanders

Planning Unit: Central

City or Other? City

Managing Department: Pubic_Uilities

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/12/2019 Start Time: 8:30:00

Surveyors: Cheryl Jenkins

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Fencerepair,Fence_install,Sign_install,Dump_cleanup,T
rash_pickup,Grading_recontouring,RecontouringPools,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Entire site will undergo habitat restoration beginning in 2019.

Notes:

Management Actions Completed:

Serra Mesa Library

Planning Unit: Central

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Serra_Mesa_Library

Planning Unit: Central City or Other?

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 12/28/2018 Start Time: 2:30:00

Surveyors: Jessie Lane, Diana Brand Ramirez, Rob Wheeler

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: New

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: New

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Fencerepair,Dump_cleanup,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: mustard, thistle, erodium

Visit Date: 2/4/2019 Start Time: 0:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fencerepair,Sign_install,Dump_cleanup,Trash_pickup,Grading_reco
ntouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Fixing holes in fence soon.

Notes: Large patches of mustard, erodium, eucalyptus, grasses, stinging nettle.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Serra_Mesa_Library

Visit Date: 3/21/2019 Start Time: 20:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Trash_pickup,Dump_cleanup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed management and trash cleanup soon.

Notes: Erodium, crown daist, mustard, eucalyptus present.

Visit Date: 5/20/2019 Start Time: 0:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fencerepair,Dump_cleanup,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed whack cen mel, geb cor, bra nig

Notes: Fence on North side is cut open again and I repaired it..

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Serra_Mesa_Library

Management Actions Completed:

Date: 3/29/2019 **Completed by:** Jason Allen, Scott Seyfried, Moises Vasquez

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 5/20/2019 **Completed by:** Jason Allen

Contractor (if applicable)

Management Actions Completed: Repair cut fence.

Notes/Comments:

Date: 6/4/2019 **Completed by:** Jason Allen

Contractor (if applicable) Aztec Landscaping

Management Actions Completed: Crew weed whack invasive species.

Notes/Comments:

Serra Mesa Library

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/4/2019
- Photo description: Invasive plant – Black mustard (*Brassica nigra*) present in vernal pool basins and upland areas.



- Photo taken: 2/4/2019
- Photo description: Trash/debris on site.

Serra Mesa Library

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/4/2019
- Photo description: Invasive species present in vernal pool basins and upland buffer areas.



- Photo taken: 3/29/2019
- Photo description: Herbicide application to invasive species in vernal pool upland buffer.

Serra Mesa Library

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/6/2019
- Photo description: Fence damaged.



- Photo taken: 2/6/2019
- Photo description: Fence repaired by adding patch over hole.

South Otay 1 Acre

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_South_Otay_1_Acre

Planning Unit: South City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/31/2019 Start Time: 22:30:00

Surveyors: Jason Allen, Jessie Lane

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Add_replace_lock,Add_replace_chain,Fence_install,Sign_install,Dump_cleanup,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Public Works future mitigation site.

Notes: Lots of invasive grasses, erodium present.

Visit Date: 4/5/2019 Start Time: 5:30:00

Surveyors: Jason Allen, Diana Brand

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Fence_install,Sign_install,Trash_pickup,Dump_cleanup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Maybe mow of time allows.

Notes: Public Works going to mitigate. Lots of invasive grasses.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_South_Otay_1_Acre

Visit Date: 5/16/2019 **Start Time:** 21:30:00

Surveyors: Jason Allen, Mark Berninger, Diana Brand Ramirez, Ninfa Negrete

Site Conditions:

Ponded Water: no **Days Since Last Rain:** 1-5 **Fairy Shrimp Visible?**

Listed Plants Visible? Present **Listed Plants:**

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol, Dethatching, RestReveg, Fence_install, Sign_install, Trash_pickup, Grading_recont
ouring, Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: None

Notes: Future City Public Works Mitigation Project

Management Actions Completed:

South Otay 1 Acres

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 4/5/2019
- Photo description: Trash/debris in vernal pools.



- Photo taken: 9/5/2019
- Photo description: Thick invasive grass thatch covering vernal pool complex.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_South_Otay_1_Acre

VP_ID: 1235

Photopoint X: -117.01706611800

Photopoint Y: 32.55685648420

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.0	Baseline Cover of NAFO: 0.5	Baseline Cover of ORCA: 10.0
Baseline Cover of POAB: 0.0	Baseline Cover of PONU: 0.0	

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 9:14 AM

Survey End Time: 10:17 AM

Surveyors: Jason Allen

VP HCP Covered Species Present:

Cover of ERAR in Basin

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Deinandra fasciculata - clustered tarweed	1-5%
Eleocharis macrostachya - common spikerush	<1%
Erigeron canadensis - Canada horseweed	<1%
Lepidium nitidum - shining pepperweed	<1%
Lysimachia minima - chaffweed	<1%
Malvella leprosa - alkali mallow	5-10%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 7

Nonnative Species in Pool

Species Name	Cover
Atriplex semibaccata - Australian saltbush	<1%
Bromus hordeaceus - soft brome	<1%
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	1-5%
Festuca perennis - Italian rye grass	50-75%
Hordeum marinum - seaside barley	<1%
Hypochaeris glabra - smooth cat's ear	<1%
Lactuca serriola - prickly lettuce	<1%
Lythrum hyssopifolia - hyssop loosestrife	<1%
Mesembryanthemum nodiflorum - slender leaved ice plant	<1%
Phalaris aquatica - harding Grass	1-5%
Phalaris minor - littleseed canarygrass	<1%
Salsola tragus - prickly Russian thistle	<1%
Sonchus asper - spiny sowthistle	<1%
Spergularia bocconi - sand spurry	<1%

Cover of Nonnative Species in Basin: 50-75% Nonnative Species Richness in Basin: 15

Bare Ground Cover in Basin 10-25% Cover of Rocks/Cobble in Basin: <1% Cover of Litter in Basin: <1%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_South_Otay_1_Acre

VP_ID: 1235

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Atriplex semibaccata - Australian saltbush
Avena barbata - slender oat
Bromus diandrus - ripgut brome
Bromus madritensis - compact brome
Deinandra fasciculata - clustered tarweed
Erodium botrys - longbeak stork's bill
Festuca perennis - Italian rye grass
Hainardia cylindrica - Thin tail
Hordeum marinum - seaside barley
Hypochaeris glabra - smooth cat's ear
Lactuca serriola - prickly lettuce
Lamarckia aurea - goldentop grass
Lepidium nitidum - shining pepperweed
Logfia gallica - narrowleaf cottonrose
Malvella leprosa - alkali mallow
Medicago polymorpha - burclover
Mesembryanthemum nodiflorum - slender leaved ice plant
Psilocarphus brevissimus - woolly marble
Sonchus asper - spiny sowthistle
Zeltnera venusta - charming centaury

Notes/Comments: None

South Otay 1 Acres

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 1235



Photo taken: 5/16/2019

Photo location is -117.01706611800, 32.55685648420 NAD83 State Plane California Zone 6 (feet)

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_South_Otay_1_Acre

VP_ID: 2339

Photopoint X: -117.01732895200

Photopoint Y: 32.55696960080

Photopoint Established: 2018

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/16/2019

Survey Start Time: 9:10 AM

Survey End Time: 9:43 AM

Surveyors: Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin

Other Native Species in Pool:

Species Name	Cover
Cressa truxillensis - spreading alkaliweed	<1%
Deinandra fasciculata - clustered tarweed	<1%
Eleocharis macrostachya - common spikerush	5-10%
Malvella leprosa - alkali mallow	5-10%
Psilocarphus brevissimus - woolly marble	5-10%

Cover of Other Native Species in Basin 10-25% Native Species Richness in Basin: 5

Nonnative Species in Pool

Species Name	Cover
Bromus madritensis - compact brome	<1%
Erodium botrys - longbeak stork's bill	<1%
Festuca perennis - Italian rye grass	50-75%
Hordeum marinum - seaside barley	5-10%

Cover of Nonnative Species in Basin: 50-75% Nonnative Species Richness in Basin: 4

Bare Ground Cover in Basin 1-5%

Cover of Rocks/Cobble in Basin: <1%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_South_Otay_1_Acre

VP_ID: 2339

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Avena sp. - oat
Brodiaea terrestris - dwarf brodiaea
Bromus diandrus - ripgut brome
Bromus hordeaceus - soft brome
Deinandra fasciculata - clustered tarweed
Eleocharis macrostachya - common spikerush
Erodium botrys - longbeak stork's bill
Eryngium aristulatum var. parishii - San Diego button celery
Festuca perennis - Italian rye grass
Malvella leprosa - alkali mallow
Medicago polymorpha - burclover
Melilotus indica - annual yellow sweetclover
Phalaris aquatica - harding Grass
Phalaris minor - littleseed canarygrass
Psilocarphus brevissimus - woolly marble

Notes/Comments: None

South Otay 1 Acres

Annual Covered Plant Monitoring Photo

Vernal Pool ID: 2339



Photo taken: 5/16/2019

Photo location is -117.01732895200, 32.55696960080 NAD83 State Plane California Zone 6 (feet)

Tecolote Canyon

Planning Unit: Central

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Tecolote_Canyon

Planning Unit: Central City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/12/2019 Start Time: 5:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fence_install,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Poor quality pools with no maintenance requirements.

Visit Date: 6/4/2019 Start Time: 8:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Sign_install,Fence_install,Add_replace_chain,Add_replace_lock,Trash_pickup,Grading_recontouring,RecontouringPools,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed control and trash pickup.

Notes: Add fencing and signage along the trail pools. Canine tracks in pools.

Tecolote Canyon

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/12/2019
- Photo description: Invasive plants in vernal pool.



- Photo taken: 6/4/2019
- Photo description: Trash/debris onsite.

West Otay B

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_West_Otay_B

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/28/2019 Start Time: 18:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 6-15 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool:

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Maintenance by D&D Wildlife in progress no checking of actual pools.

Visit Date: 3/12/2019 Start Time: 19:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Present

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Maintained by D&D Wildlife

Notes: Stinknet invading. Mitigation project for SDUSD project.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_West_Otay_B

Visit Date: 5/14/2019 Start Time: 20:30:00

Surveyors: Jason Allen, Mark Berninger, Diana Brand, Jessie Lane

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Weed control surrounding vernal pools.

Notes: Oncosiphon in surrounding area.

Management Actions Completed:

Date: 10/2/2018 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 3/15/2019 Completed by: Jason Allen, Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

West Otay B

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 1/28/2019
- Photo description: Vernal pools are currently undergoing active restoration. Contracted maintenance crew onsite.



- Photo taken: 3/12/2019
- Photo description: Vernal pools undergoing active restoration are inundated.

West Otay B

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/15/2019
- Photo description: Invasive plants – Stinknet (*Oncosiphon piluliferum*) present in upland vernal pool buffer.



- Photo taken: 5/14/2019
- Photo description: Herbicide application to Stinknet (*Oncosiphon piluliferum*) in vernal pool upland buffer.

West Otay C

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: Yes

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_West_Otay_C

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/28/2019 Start Time: 19:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol, Dethatching, RestReveg, Fence_install, Sign_install, Trash_pickup, Regularpatrolsr
ecommended, RecontouringPools

Other Management Needs:

Additional Management Actions Recommended:

Notes: Some pools within fence line, some outside. Button celery in one pool inside fence..

Visit Date: 3/12/2019 Start Time: 18:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Present Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol, RestReveg, Sign_install, Fence_install, Grading_recontouring, Regularpatrolsreco
mmended

Other Management Needs:

Additional Management Actions Recommended: Weed control soon.

Notes: Stinknet in surrounding area.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_West_Otay_C

Visit Date: 5/14/2019 **Start Time:** 19:30:00

Surveyors: Jason Allen, Mark Berninger, Diana Brand Ramirez, Jessie Lane

Site Conditions:

Ponded Water: no **Days Since Last Rain:** 1-5 **Fairy Shrimp Visible?**

Listed Plants Visible? Present **Listed Plants:**

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fence_install,Sign_replacement,Trash_pickup,Grading_recontouring
,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Block off old road that cuts through vernal pools.

Notes: Oncosiphon onsite. Pools with focal species in Caltrans mitigation fenceline.

Management Actions Completed:

Date: 3/15/2019 **Completed by:** Jason Allen, Scott Seyfried

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

West Otay C

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 3/12/2019
- Photo description: Vernal pool in access road being driven through.



- Photo taken: 3/15/2019
- Photo description: Dead upland vegetation in vernal pool.

West Otay C

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 1/28/2019
- Photo description: Vernal pool in access road being driven through.



- Photo taken: 3/15/2019
- Photo description: Temporary blocked off vernal pool being driven through.

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 1 of 2

Complex Name: City_West_Otay_C

VP_ID: 1545

Photopoint X: -117.027500000000

Photopoint Y: 32.56166667000

Photopoint Established: 2019

2003 Baseline Survey Data

Baseline Cover of ERAR: 0.5 Baseline Cover of NAFO: 0.0 Baseline Cover of ORCA: 0.0
Baseline Cover of POAB: 0.0 Baseline Cover of PONU: 0.0

2019 Quantitative Monitoring Data

Survey Date 5/14/2019

Survey Start Time: 2:59 PM

Survey End Time: 3:23 PM

Surveyors: Jason Allen, Jessie Lane, Mark Berninger, Diana Brand Ramirez

VPHCP Covered Species Present: PONU,ERAR

Cover of ERAR in Basin <1%

Cover of NAFO in Basin:

Cover of ORCA in Basin

Cover of POAB in Basin

Cover of PONU in Basin <1%

Other Native Species in Pool:

Species Name	Cover
Callitriche marginata - California water starwort	1-5%
Deinandra fasciculata - clustered tarweed	1-5%
Juncus bufonius - toad rush	<1%
Myosurus minimus - little mouse tail	1-5%
Plantago elongata - annual coast plantago	<1%
Psilocarphus brevissimus - woolly marble	25-50%

Cover of Other Native Species in Basin 25-50% Native Species Richness in Basin: 6

Nonnative Species in Pool

Species Name	Cover
Lythrum hyssopifolia - hyssop loosestrife	<1%

Cover of Nonnative Species in Basin: <1%

Nonnative Species Richness in Basin: 1

Bare Ground Cover in Basin 10-25%

Cover of Rocks/Cobble in Basin: 5-10%

Cover of Litter in Basin: 1-5%

Days Since Last Rain 1-5

Ponded Water Present? no

Dead Species Present in Pool: None

Annual VPHCP Covered Plant Monitoring

Survey Year: 2019

Page 2 of 2

Complex Name: City_West_Otay_C

VP_ID: 1545

2019 Quantitative Monitoring Data continued

Associated Species in Buffer (Buffer = 20 foot or 6 meter radius around basin perimeter)

Species Name
Ambrosia chenopodiifolia - San Diego bur ragweed
Amsinckia intermedia - common fiddleneck
Artemisia californica - coastal sagebrush
Atriplex semibaccata - Australian saltbush
Baccharis pilularis - coyotebrush
Baccharis sarothroides - desertbroom
Bahiopsis laciniata - torhleaf goldeneye
Brassica nigra - black mustard
Bromus hordeaceus - soft brome
Bromus madritensis - compact brome
Cardionema ramosissimum - sandcarpet
Chenopodium murale - nettleleaf goosefoot
Crassula connata - sand pygmyweed
Deinandra fasciculata - clustered tarweed
Erigeron canadensis - Canada horseweed
Eriogonum fasciculatum - Eastern Mojave buckwheat
Erodium botrys - longbeak stork's bill
Festuca myuros - rattail sixweeks grass
Juncus bufonius - toad rush
Lamarckia aurea - goldentop grass
Logfia gallica - narrowleaf cottonrose
Lythrum hyssopifolia - hyssop loosestrife
Melilotus indica - annual yellow sweetclover
Oncosiphon piluliferum - stinknet
Peritoma arborea - bladderpod spiderflower
Plantago elongata - annual coast plantago
Pseudognaphalium beneolens - cudweed
Pseudognaphalium sp. - cudweed
Psilocarphus brevissimus - woolly marble
Schismus barbatus - common Mediterranean grass
Simmondsia chinensis - jojoba
Yucca schidigera - Mojave yucca

Notes/Comments: Photopoint is point 216 in "My GPS" Collector App

West Olay C
Annual Covered Plant Monitoring Photo
Vernal Pool ID: 1545



Photo taken: 5/14/2019
Photo location is -117.02750000, 32.56166667 NAD83 State Plane California Zone 6 (feet)

Winterwood

Planning Unit: North

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Winterwood

Planning Unit: North City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 2/4/2019 Start Time: 2:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: yes Days Since Last Rain: 1-5 Fairy Shrimp Visible? Absent

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fence_install,Sign_install,Trash_pickup,Regularpatrolsrecommended,Dump_cleanup,Grading_recontouring

Other Management Needs:

Additional Management Actions Recommended: Fencing to be installed soon. Weed management soon.

Notes: Weeds erodium. Concrete blocks in pools.

Visit Date: 6/28/2019 Start Time: 16:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: >16 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use: Ongoing

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool:

Damage from Edge Effects:

Invasive Species in Buffer:

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: RestReveg,Fence_install,Sign_install,Dump_cleanup,Trash_pickup,Grading_recontouring,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Install fence and signs.

Notes: No management required.

Winterwood

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/4/2019
- Photo description: Inundated vernal pool on City land beyond SDUSD property.



- Photo taken: 4/3/2019
- Photo description: Same vernal pool after it has dried up. Rocks used to line trail between pools. Invasive plants in vernal pool.

Winterwood

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 2/4/2019
- Photo description: Trash/debris in vernal pool.



- Photo taken: 6/28/2019
- Photo description: Path through vernal pool.

Wruck Canyon

Planning Unit: South

Land Owner: City of San Diego

Managing Department: Parks and Recreation

VPHCP Qualitative Management Monitoring Required: Yes

VPHCP Quantitative Covered Plant Monitoring Required: No

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Wruck_Canyon

Planning Unit: South

City or Other? City

Managing Department: Park_Recreation

Baseline Management and Monitoring Level:

VPHCP Required Management and Monitoring Level:

Qualitative Monitoring Data:

Visit Date: 1/3/2019 Start Time: 7:30:00

Surveyors: Jason Allen, Rob Wheeler, Diana Brand, Jessie Lane

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs:

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Trash_pickup,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended:

Notes: Low quality road rut pools. Low priority for maintenance.

Visit Date: 4/2/2019 Start Time: 2:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 6-15 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash:

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs: New

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,RestReveg,Fencerepair,Regularpatrolsrecommended

Other Management Needs:

Additional Management Actions Recommended: Fixing fences now. Weed control soon.

Notes: Non vernal pool natives coming up in pools. Wait to weed whack until after they go to seed.

VPHCP Qualitative Monitoring and Management Actions

Year: 2019

Complex Name: City_Wruck_Canyon

Visit Date: 5/8/2019 Start Time: 18:30:00

Surveyors: Jason Allen

Site Conditions:

Ponded Water: no Days Since Last Rain: 1-5 Fairy Shrimp Visible?

Listed Plants Visible? Absent Listed Plants:

New and Ongoing Issues Observed During Visit:

Trash: Ongoing

Tresspass/Unauthorized Use:

Damage to Fences and/or Signs: Ongoing

Fire or Damage from Fire Suppression:

Invasive Species in Pool: Ongoing

Damage from Edge Effects:

Invasive Species in Buffer: Ongoing

Hydrological Impacts:

Other issues observed:

Are other issues observed is new or ongoing?

Management Needs: Weedcontrol,Dethatching,RestReveg,Fencerepair,Trash_pickup,Regularpatrolsrecommended
,Fence_install

Other Management Needs:

Additional Management Actions Recommended: Weed whacked today and picked up trash.

Notes: Spray ice plant and russian thistle next visit. Add gate to North entrance.

Management Actions Completed:

Date: 4/8/2019 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Herbicide application to invasive species.

Notes/Comments:

Date: 5/8/2019 Completed by: Jason Allen

Contractor (if applicable)

Management Actions Completed: Weed whack invasive species.

Notes/Comments:

Wruck Canyon

Qualitative Management Monitoring Photos

These photos represent issues noted during qualitative management monitoring surveys. These issues are currently being addressed by City staff.



- Photo taken: 5/8/2019
- Photo description: Native and non-native plants in vernal pool.



- Photo taken: 5/8/2019
- Photo description: Native and non-native plants in vernal pool weed whacked and removed.