

APPENDIX A: TABLES

TABLE 2.3-2 PROPOSED TIDAL AND FRESHWATER MARSH PLANTING PLAN	
Plant Species/Zones	Elevation Ranges (feet)
<u>Low Marsh</u>	
<i>Spartina foliosa</i>	3.5 – 4.5
<u>Mid Marsh</u>	
<i>Distichlis spicata</i>	4.5 – 5.25
<i>Jaumea carnosa</i>	4.5 – 5.25
<i>Salicornia virginica</i>	4.5 – 5.25
<i>Scirpus maritimus*</i>	4.5 – 5.25
<u>High Marsh</u>	
<i>Distichlis spicata</i>	5.25 – 8.5
<i>Frankenia salina</i>	5.25 – 8.5
<i>Juncus acutus*</i>	6.0 – 6.25
<i>Juncus acutus</i> spp. <i>leopoldii*</i>	6.0 – 6.25
<i>Limonium californicum</i>	6.0 – 6.25
<i>Salicornia subterminalis</i>	5.25 – 8.5
<i>Salicornia virginica</i>	5.25 – 5.5
<i>Suaeda esteroa</i>	5.25 – 6.5
<i>Suaeda taxifolia</i>	5.25 – 6.5
<u>Marsh Transition</u>	
<i>Distichlis spicata</i>	5.25 – 8.5
<i>Frankenia salina</i>	5.25 – 8.5
<i>Salicornia subterminalis</i>	5.25 – 8.5
<u>Coastal Sage Scrub Upland Buffer</u>	

TABLE 2.3-2 PROPOSED TIDAL AND FRESHWATER MARSH PLANTING PLAN	
Plant Species/Zones	Elevation Ranges (feet)
<i>Artemisia californica</i>	8.5 and above
<i>Atriplex canescens</i>	8.5 and above
<i>Baccharis pilularis</i>	8.5 and above
<i>Isomeris arborea</i>	8.5 and above
<u>Freshwater Marsh</u>	
<i>Eleocharis palustris</i>	N/A
<i>Juncus balticus</i>	N/A
<i>Scirpus americanus</i>	N/A
<i>Scirpus californicus</i>	N/A
* Will be planted only in areas adjacent to freshwater inputs or brackish areas.	

**TABLE 3.1-1
SUMMARY OF PROJECT-RELATED IMPACTS AND BENEFITS
TO FEATURES POTENTIALLY UNDER CORPS JURISDICTION**

Jurisdictional Feature	# Acres: Existing	# Acres: Potentially Impacted		# Acres to be Created	Net Gain or Loss
		Temporary	Permanent		
Freshwater Marsh	7.39	2.32	0.84	0.74	-2.36
Coastal Salt Marsh	5.93	1.26	0	7.88	+6.62
Seasonal Alkali Wetland	0.54	0.23	0.07	0	-0.3
Waters	5.78	2.33	0.13	1.48	-0.98
Totals	19.59	6.08	1.04	10.1	+2.98

TABLE 3.1-2					
SUMMARY OF PROJECT-RELATED IMPACTS AND BENEFITS TO FEATURES POTENTIALLY UNDER CCC JURISDICTION					
Jurisdictional Feature	# Acres: Existing	# Acres: Potentially Impacted		# Acres to be Created	Net Gain or Loss
		Temporary	Permanent		
Freshwater Marsh	7.39	2.32	0.82	0.74	-2.4
Riparian	11.2	0.54	0.33	1.29	+0.42
Coastal Salt Marsh	5.93	1.26	0	7.88	+6.62
Seasonal Alkali Wetland	0.91	0.17	0.12	0	-0.29
Open Waters	5.78	2.33	0.13	1.48	-0.98
Totals	33.21	6.62	1.4	10.1	+2.08

TABLE 3.1-3

RIPARIAN, ALKALI MEADOW, AND COASTAL SAGE SCRUB HABITAT RESTORATION

Restoration Action – Replant Areas Dominated by Exotic Species and Areas of Project Grading			
Existing Habitat	Acres	Restored Habitat*	Acres
Ornamental (Pepper Tree Woodland)	1.29	Willow Riparian Woodland	1.29
Annual grassland	0.08	Mulefat Scrub	0.08
Annual grassland	0.67	Alkali Forb/Meadow	1.43
Alkali forb/exotic forbs	0.76		
Ornamental (Pepper tree)	0.24	Coastal Sage Scrub	2.43
Alkali forb/exotic forbs	0.64		
Annual grass/exotic forbs	0.78		
Annual grass/ Ornamental	0.78	Upland Buffer/ Coastal Sage Scrub	0.87
Various Habitats (marsh, pond and paved)	0.87		

*See Planting/Habitat Plan for location of each habitat type.

Enhancement Action – Invasive Exotic Species Removal and Planting with Native Species		
Existing Habitat	Removal Zones*	Acres
Riparian Scrub	C1, C2, C6	4.32
Alkali Forb/Meadow	C5	0.25
Coastal Sage Scrub	C6	0.99

Enhancement Action – Spot Removal of Invasive Exotic Species and Seeding with Native Species		
Existing Habitat	Removal Zones*	Acres
Willow Riparian Woodland	D2	0.67
Willow Riparian Scrub	D1, D3	3.19
Mulefat Scrub	D1, D2, D3	0.37
Alkali Forb/Meadow	D1, D4	0.16
Coastal Sage Scrub	A, D1	1.32

*See Invasive Exotic Removal Plan

APPENDIX B: FIGURES

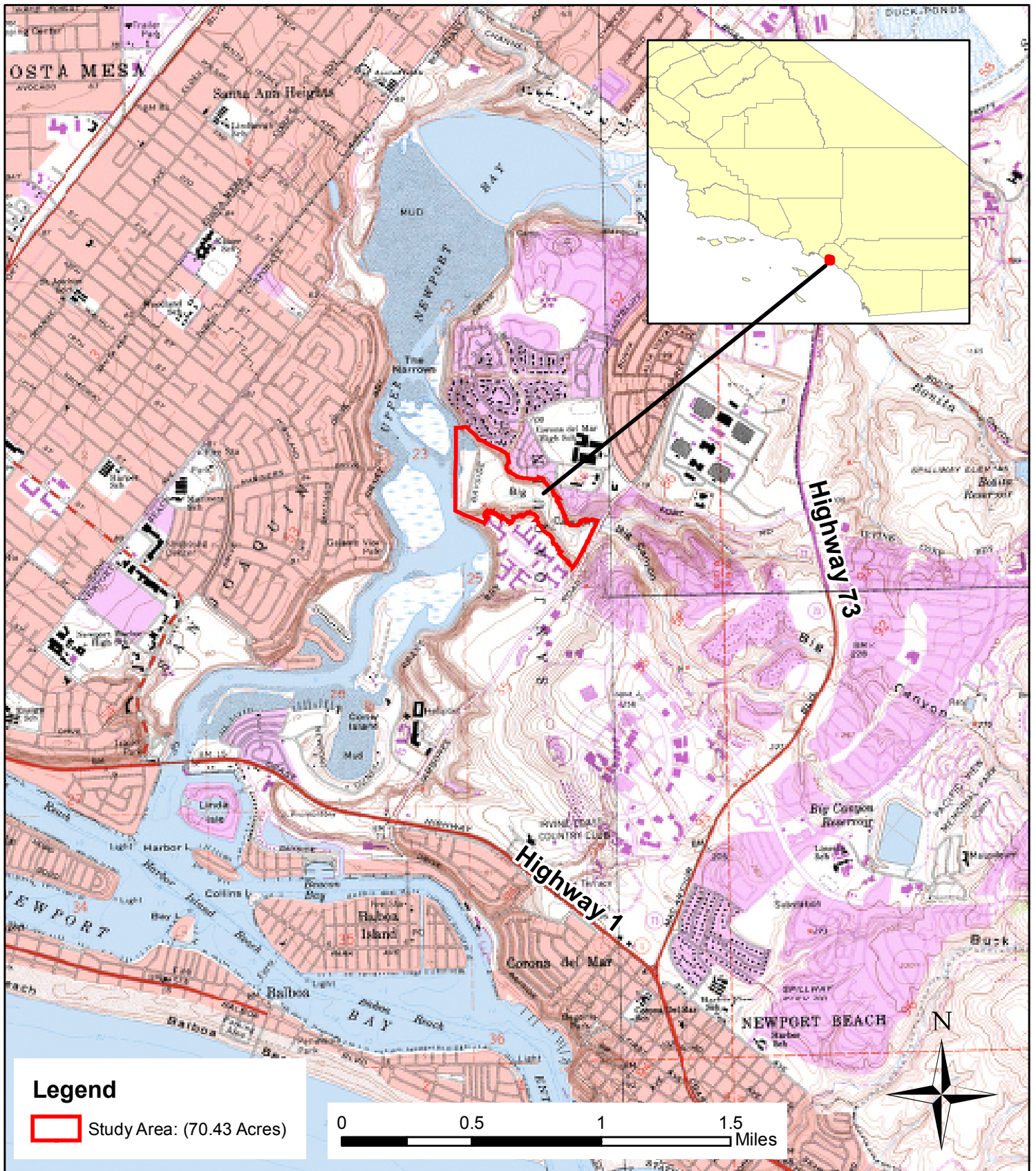


Figure 1. Location Map

Big Canyon Study Area
Newport Beach, California

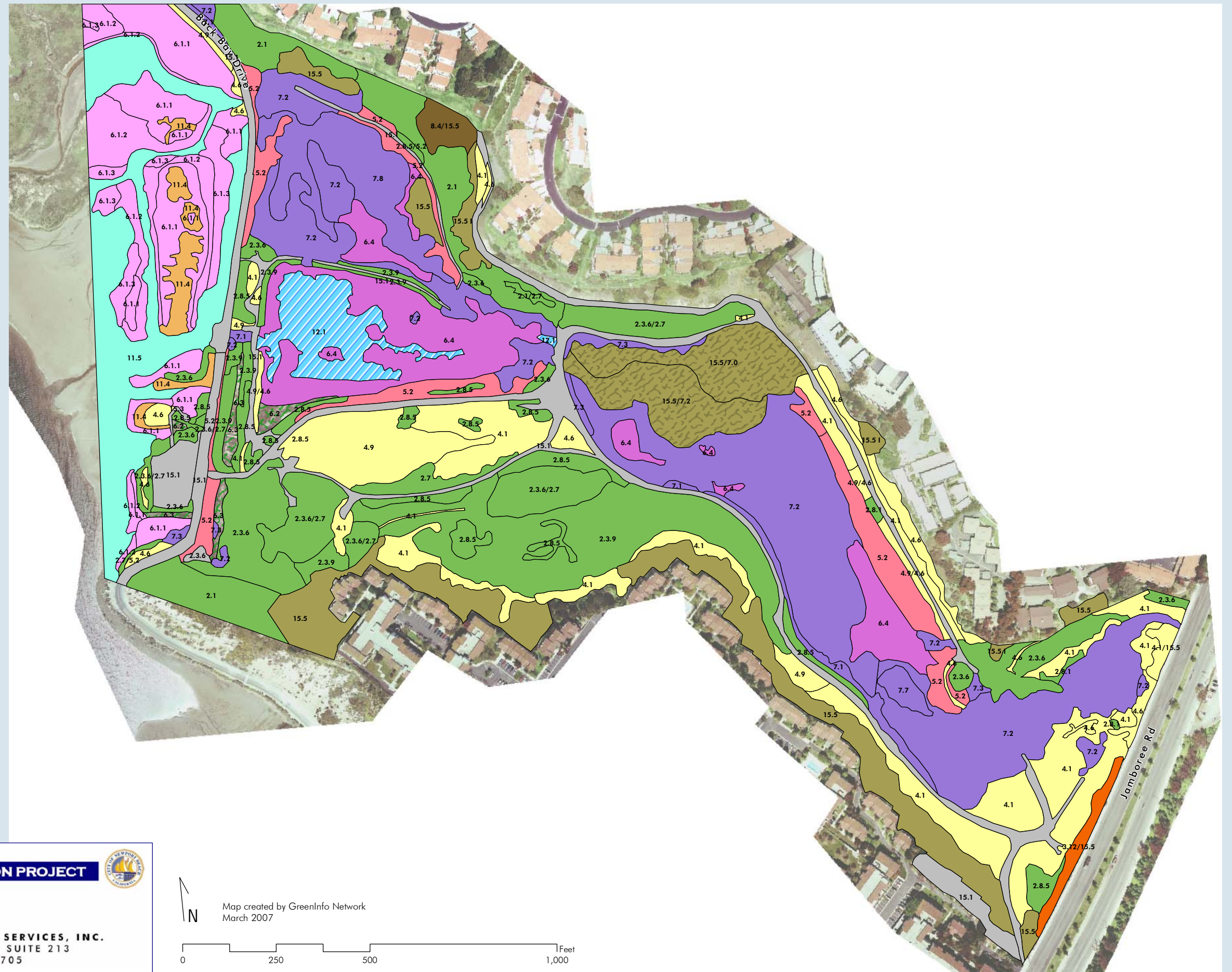


Date: November 2006
 Basemap: USGS Topo Quad
 Map By: Sundaran Gillespie
 Filepath: I:\ACAD2000\13075\GIS\ArcMap\Location Map.mxd

FIGURE 2.1-2
Existing Vegetation

Existing Habitat

-  Coastal Sage Scrub
-  Chaparral
-  Grassland
-  Wet Meadows, Seeps & Vernal Pools
-  Salt Marsh
-  Freshwater Marsh
-  Brackish or Alkaline Marsh
-  Riparian
-  Woodlands
-  Sandy Flats
-  Marine and Coastal
-  Ponds and Creeks
-  Ornamental Plantings
-  Mixed Ornamental Plantings and Riparian
-  Developed: Parking Lots, Roads, and Trails
-  Creek

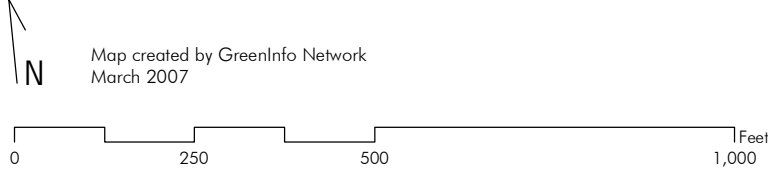


CITY OF NEWPORT BEACH
BIG CANYON RESTORATION PROJECT



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1800 E. GARY AVE, SUITE 213
SANTA ANA, CA 92705

Map created by GreenInfo Network
March 2007

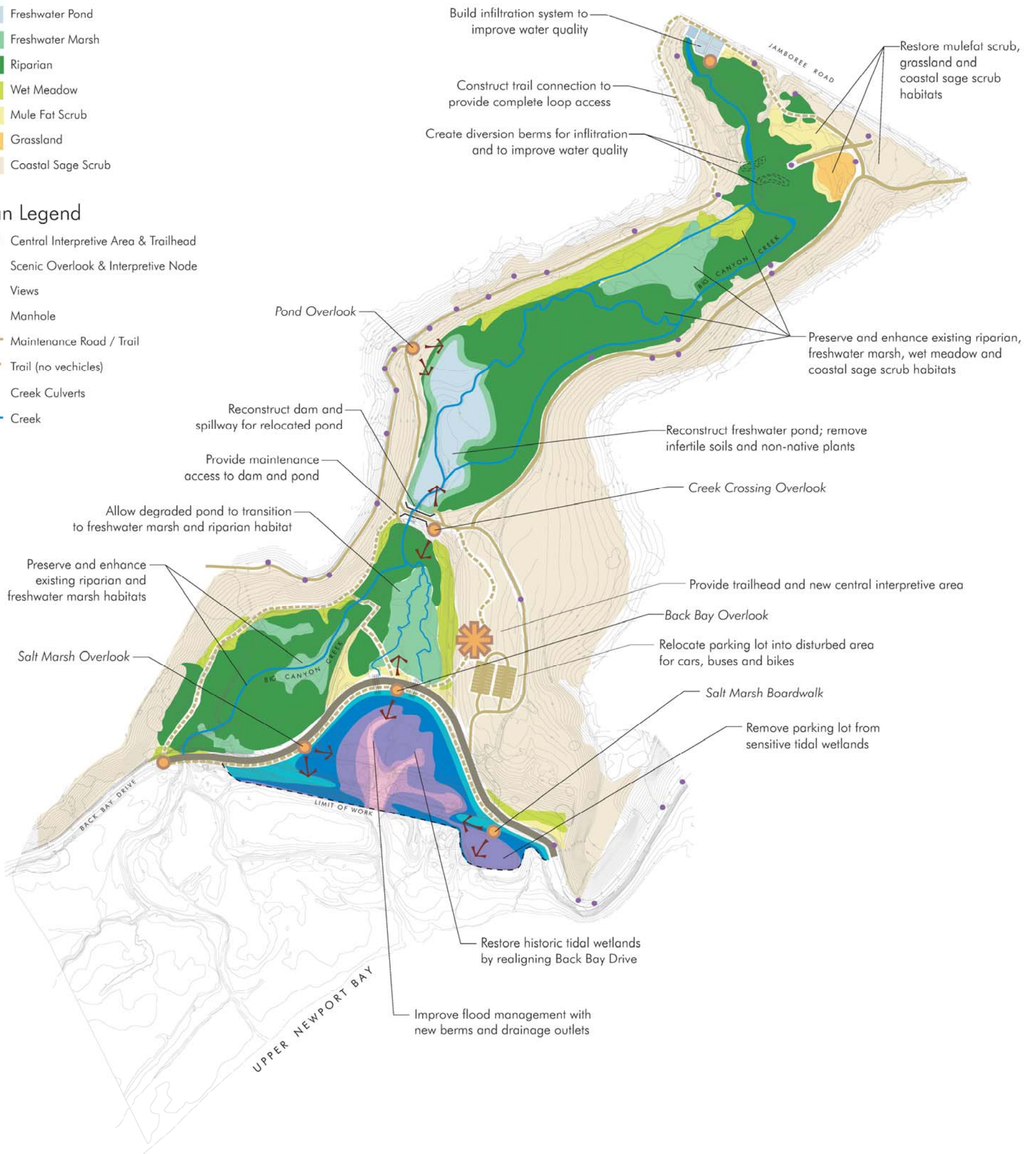


Existing & Restored Plant Communities

- Tidal Channel / Mud Flats
- Low Salt Marsh
- Middle Salt Marsh
- High Salt Marsh
- Transition Marsh Habitat
- Freshwater Pond
- Freshwater Marsh
- Riparian
- Wet Meadow
- Mule Fat Scrub
- Grassland
- Coastal Sage Scrub

Plan Legend

- Central Interpretive Area & Trailhead
- Scenic Overlook & Interpretive Node
- Views
- Manhole
- Maintenance Road / Trail
- Trail (no vehicles)
- Creek Culverts
- Creek



Source: CCI, 2004



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FIGURE 2.2-1
Phase I Conceptual Restoration Plan



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FIGURE 2.2-2

Grading, Drainage, and Utilities Plan

Existing Utilities

- Manhole
- Sewer Line
- Storm Drain Line
- BMP

Planned Grading

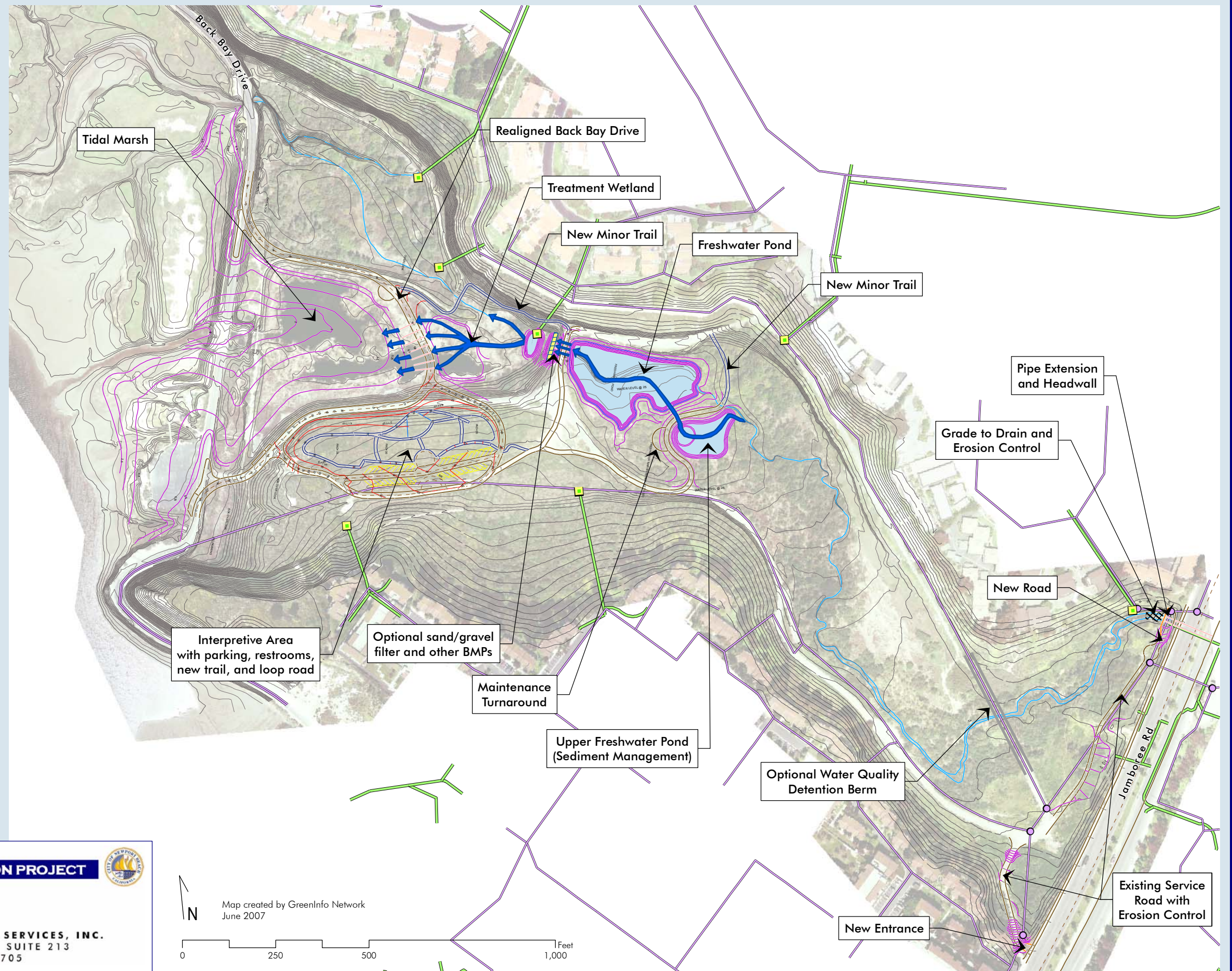
- Fill Contour
- Excavation Contour
- Existing Contour

Planned Road / Trail

- Road Centerline
- Trail
- Road
- Parking

Other Planned

- Pipe
- Wall
- ▨ Riprap
- ▭ Pond
- Existing Creek
- ➔ Planned Hydrologic Flow
- ▨ Optional sand/gravel filter and other BMPs



Map created by GreenInfo Network
June 2007

0 250 500 1,000 Feet

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BIG CANYON RESTORATION PROJECT





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FIGURE 2.2-3

Planting/Habitat Plan

Exotic Invasive Plant Removal Zones

-  Exotic Removal A
Large to medium tree removal on slopes above Big Canyon
-  Exotic Removal B
Large to small tree/shrub removal on private property
-  Exotic Removal C
Large to small tree/shrub, sapling, seedling removal within riparian areas
-  Exotic Removal D
Medium to small tree, sapling, seedling spot removal within riparian areas

New Plantings by Habitat Type

-  Coastal Sage Scrub
-  Grassland
-  Mulefat
-  Native Shade Trees
-  Freshwater Pond
-  Freshwater Marsh
-  Riparian
-  Marsh Transition
-  High Marsh
-  Mid Marsh
-  Low Marsh
-  Mudflat



Map created by GreenInfo Network
March 2007

0 250 500 1,000 Feet

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FIGURE 2.2-4

Trail and Facility Plan

Planned Areas and Facilities

- Paved Area
- Facility
 - A - Arrival / Dropoff Area
 - B - Amphitheater and Staging Area
 - C - Observation Deck
 - D - Restrooms
 - E - Overlook
- Parking Area
 - F - Parking
- New Native Planting per Planting Plan
- Pond

Roads and Trails

- Public Road & Bike Trail
- Major Trail
 - Major Trail on Maintenance Road
- Minor Trail
 - Minor Trail on Maintenance Road
- Maintenance Road



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March 2007

0 250 500 1,000 Feet

FIGURE 3.1-3

Exotic Invasive Plant Removal Zones

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