



EL CABALLO PARK MASTER PLAN REPORT

DATE: 03-26-14

PREPARED FOR:
CITY OF ESCONDIDO
201 NORTH BROADWAY
ESCONDIDO, CA 92025

PREPARED BY:
WYNN-SMITH LANDSCAPE ARCHITECTURE, INC.
12315 OAK KNOLL RD., SUITE 230 POWAY, CA 92064





Table of Contents

Executive Summary	5
Introduction	7
Purpose	7
Site Location	7
Site History	8
Master Plan Description	15
Master Plan Goals and Objectives	15
Master Plan Concept.	16
Final Master Plan.	18
Existing Arena Area Improvement Description	20
Lower Equestrian Area Description	22
Horse Trailer Parking Description	24
Lower Multi-Use Parking Description.	26
Dog Park - El Caballo Park Connection Description	28
3-D Views Into Park	30
Plant Palette.	35
Drainage and Water Quality Summary	36
Master Plan Elements and Materials.	42
Fencing Master Plan Description.	54
Park Maintenance:	58
Revenue Generation Opportunities:	58
Planning Process	61
Workshop #1	62
Workshop #2	68
Workshop #3	72
Site Analysis	75
Adjacent Properties and Land Use	75
Soils Analysis	76
Vegetation Analysis	78
Existing Conditions Analysis	82
Site Utility Inventory.	84
Constraints Analysis	87
Financial Constraints	87
Biological Constraints	87
Implementation Strategy and Phasing	88

Preliminary Opinion of Probable Cost93
Funding Opportunities97
National Funding Sources.97
National Funding Sources for Nature Programming.99
State Funding Sources	100
Local Funding Sources.	101
Permitting and Regulatory Requirements	103
Future Development Process	105
Appendix	107
Drainage and Water Quality Concept Report.	107

List of Figures

Figure 1: Vicinity Map	7
Figure 2: Final Master Plan.	19
Figure 3: Existing Arena Area Improvements	21
Figure 4: Lower Equestrian Area	23
Figure 5: Horse Trailer Parking	25
Figure 6: Lower Multi-Use Parking	27
Figure 7: Dog Park - El Caballo Park Connection	29
Figure 8: View Across Bridge Into Heart Of Park	30
Figure 9: View Of Community Hall And 100' x 200' Arena	31
Figure 10: View From Above Daley Ranch Looking South.	32
Figure 11: View Of Lower Equestrian Area	33
Figure 12: View Of Lower Equestrian Area From Charreada Picnic Shade Structure	34
Figure 13: Hydromodification Plan.	39
Figure 14: Entry Monument Sign #1	41
Figure 15: Entry Monument Sign #2	42
Figure 16: Entry Monument Sign #3	43
Figure 17: Entry Monument Sign #4	44
Figure 18: Architectural Styles.	45
Figure 19: Stone Walls	46
Figure 20: Furniture	47
Figure 21: Shade Structures	48
Figure 22: Lighting	49
Figure 23: Escondido Creek Trail Extension.	49
Figure 24: Hitching Posts	50

Figure 25: Parking Lot Tire Stops 50
Figure 26: Escondido Creek Potential Modification . 51
Figure 27: Fencing Master Plan 53
Figure 28: Fencing Types. 54
Figure 29: Project Timeline 61
Figure 30: Potential Program Elements Chart. . . . 63
Figure 31: Community Thoughts 64
Figure 32: Bubble Diagram #1. 67
Figure 33: Bubble Diagram #2. 68
Figure 34: Bubble Diagram #3. 69
Figure 35: Soils Analysis Plan 75
Figure 36: Vegetation Analysis Plan 77
Figure 37: Vegetation Communities 78
Figure 38: Mitigation Standards. 78
Figure 39: Existing Conditions Analysis Plan 81
Figure 40: Site Utility Inventory. 83
Figure 41: Phasing Plan 87

Master Plan Endorsements and Approval

The Master Plan was endorsed or approved by the following:

Appearance Committee:
 Endorsed - Nov. 21, 2013

Community Services Commission:
 Endorsed - Jan. 23, 2014

City Planning Commission:
 Endorsed - Feb. 11, 2014

City Council:
 Approved - March 26, 2014

Acknowledgements

The El Caballo Park Master Plan was prepared under the direction of the City of Escondido Community Services Department with valuable input from the public. Great appreciation is expressed to members of the following agencies and organizations for their enthusiasm, dedication and contributions to the ideas expressed in this plan.

- City of Escondido
- Community Services Department
- Loretta McKinney - Director
- Amy Shipley - Assistant Director
- Planning Department
- Jay Petrek - Principal Planner
- Asociacion de Charros de Escondido (*Escondido Charros Association*)
- El Caballo Park Conservancy
- Escondido Humane Society
- Friends of Daley Ranch
- Hidden Valley Obedience Club

Consultant Team

Prime Consultant:
 Wynn-Smith Landscape Architecture, Inc.
 Subconsultants:
 In-Site Landscape Architecture, Inc.
 Bennett Peji Design
 Excel Engineering

Directions to Viewing Report

This report was prepared to be printed on back to back sheets to conserve paper and to assist in reading plans. Site Plans and Enlargements are printed on the right side sheet and associated notes and legends can be seen simultaneously on the left side sheet.

If one is reading this in PDF format, it is suggested that the reader view in 2 page format within Adobe PDF Reader. Select View, Page Display, Two Page View. Then select View, Page Display, Show Cover Page In Two Page View. This will allow the reader to see the left and right side pages simultaneously. Zoom in on the screen if necessary.

Executive Summary

The image shows a natural landscape with a rocky foreground and a hillside covered in dry, brownish vegetation. The rocks are light brown and yellowish, with some showing signs of weathering and cracking. The vegetation consists of thin, dry stems and small, brownish flowers or seed heads. The overall scene is arid and appears to be a natural, unmanaged area. The text 'Executive Summary' is centered over the middle of the image in a black, serif font.

Executive Summary

El Caballo Park is settled at the base of the beautiful chaparral covered hills of Daley Ranch at the northeast corner of the City of Escondido. The project site, addressed as 3410 Valley Center Road, Escondido, California, is within the boundaries of the proposed Escondido Subarea Plan of the Multiple Habitat Conservation Program (MHCP; Ogden and CBI 2001), and within a Focused Planning Area. El Caballo Park's purpose is to be much more than a park or even just an equestrian park. With its unique elements, location and community support, the park will be a place that brings men, women and children together in a unique manner that celebrates Escondido's cultural variety and connection to agriculture and open space. The park will be a community-relations center, a learning center as well as a fun park and will use nature, horses, art and thoughtful, creative design as the attracting elements.

The park encompasses approximately 19.8 acres, including the Escondido Creek channel.

Since 1972, this land has been used by the Charros of Escondido (Asociacion de Charros de Escondido) to conduct charreadas (similar to rodeos) and beautifully choreographed horse shows by young women called Escaramuzas. Based on community support, the City has funded the master plan to identify future development and phasing of the park.

Surrounding the park is the 3,000 acre Daley

Ranch and the Escondido Humane Society to the north, Escondido Mayflower Dog Park, Hidden Valley Obedience Club and East Valley Parkway to the east, Beven Drive and Eureka Springs housing development to the south and the Escondido Water Treatment plant to the west.

The El Caballo Park Master Plan creates opportunities for park visitors to not only interact with horses but also to explore nature, learn about the history of the area, picnic with friends and family and see high quality dog shows and equestrian events.

The park will extend the Escondido Creek Trail, from the south, providing pedestrians and cyclists a relaxing destination into the park. The park will also act as a staging area for users of the Caballo Trail in Daley Ranch as well as a destination for people coming from the west side of the Ranch.

Key components of the Master Plan include:

- Improvements to the existing arena historically used by the Charros.
- Addition of multiple round pens and arenas, including a 100' x 200' show arena and a therapeutic riding arena.
- Grass play areas with shaded picnic spaces.
- A community hall building.
- Nature exploration opportunities

- Improved parking layout.
- Connection to Escondido Creek Trail
- Softening of Escondido Creek channel
- Signage
- Potential Funding Opportunities
- Revenue generating possibilities

With the United States equestrian industry's impact of over \$102 billion on the US economy, El Caballo Park will add to this positive impact not only by providing healthy activities for the citizens of the region, but by playing an important role in increasing business within the equestrian community.

The following report defines and illustrates the park design concepts, analysis of existing conditions, conceptual grading & hydromodification plans, potential development opportunities and amenities, development phasing, public input during the design process and an opinion of probable cost of construction.

The background of the slide is a dense, low-angle shot of green foliage, likely from a tree or large shrub. The leaves are silhouetted against a bright, hazy sky. In the center of the image, a bright sunburst effect is visible, where the sun is partially obscured by the leaves, creating a starburst pattern of light rays. The overall color palette is dominated by various shades of green and a soft, warm yellow from the sunlight.

Introduction

Introduction

Purpose

The purpose of the Master Plan is to:

- Develop a detailed Master Plan to provide a coordinated and strategic approach to the provision and development of equestrian activities and infrastructure.
- Guide the layout of active and passive recreation, facilities, amenities, parking requirements and general park needs.
- Assess potential development funding opportunities and phasing strategies.
- Ensure the use of the space is maximized and that natural elements are retained and enhanced wherever possible.
- Provide “natural” play opportunities that will encourage creativity and learning, free of typical play structures that limit creative thinking.

Site Location

El Caballo Park is generally situated between East Valley Parkway and hilly terrain with designated open space.

It is located at the northeast end of the City of Escondido and is situated immediately south of the 3,000 acre Daley Ranch preserve and the Escondido Humane Society. To the west of the park is the City of Escondido Water Treatment Plant, which is adjacent to Dixon Lake. The

treatment plant is 300 feet above the park area.

To the east, is Mayflower Dog Park and the Hidden Valley Obedience Club (HVOC) which are separated from El Caballo Park by a large concrete drainage channel called Escondido Creek. There is also a 2.5 acre vacant dirt lot between HVOC and Beven Drive and will be included in the park boundaries of development.

South of the park is the 340 unit housing development Eureka Springs.



Figure 42: Vicinity Map



Site History

Native Americans inhabited much of the land in Escondido taking advantage of the abundance of wildlife and food growing opportunities. Bedrock Millings, used for grinding acorns and other grains, can be found just outside of the park boundaries.

In 1888, Benjamin Franklin Dixon acquired 50 acres in the area of the park and began the local citrus industry. Many of the groves today began from the stock from his family nursery.

The Dixon house, built in 1898, was on the southwest corner of Beven Road and Burnet Drive. The only remains of the structure are the front porch concrete steps and the excavated foundation.

It is believed that Mr. Dixon brought acorns from Oak trees planted by the pilgrims in Massachusetts and that he planted one of the seeds in the large open dirt lot immediately north of Beven Road. This tree became known as the Mayflower Oak Tree. It is still standing there but while not alive, still carries sentimental value to locals and history buffs.

In 1895 Bear Valley Dam was completed, which brought much needed water to the area, allowing increased development of citrus groves, for which the area became famous.

Currently, and for the last 43 years, the Charros De Escondido (Asociacion de Charros de Escondido) use the upper portion of the project site for cultural activities, shows, horse

training, charreadas and escaramuzas events. The charreadas, similar to rodeos, continue a Mexican tradition of demonstrating skills necessary to run cattle ranches. During this time, the Charros built the existing charreada arena with supporting small corrals for horses and cattle used in the chareada events.

This group, one of the oldest Charros groups in California, competes with teams from all over California and Mexico attracting large numbers of fans to the site on Sundays, while on Saturdays, the Charros practice for Sunday's event. The competitions follow the strict guidelines outlined by the Federacion Mexicana de Charrerria but conform to the animal rights regulations of the United States.

Escaramuzas events involve teams of young women wearing colorful dresses, while riding sidesaddle at high rates of speed in choreographed routines.

The Master Plan for the park incorporates methods to teach this important local history of the land, culture and way of life, both historically and of modern day.



Mayflower Tree (When Alive)

These images are provided by the Pioneer Room of the Escondido Public Library.



Site Photos

The following photographs document the site conditions as of Fall 2013.





INTRODUCTION





An aerial master plan for a park or sports complex. The plan features a large central area with several rectangular and circular fields, possibly for sports or recreation. A winding path or stream runs through the center, surrounded by dense green landscaping. To the right, there is a large parking lot with many spaces, and a road with a median. The overall design is integrated with the surrounding natural landscape, which includes a large body of water on the left and a road on the right.

Master Plan Description

Master Plan Description

Master Plan Goals and Objectives

The City's vision is that El Caballo Park be a public facility that accommodates equestrian-oriented activities with amenities designed for renting to a variety of organizations and the public in a cost-recovery manner that minimizes municipal maintenance and operational expenses. The plan identifies architectural styles, colors and materials, fencing, lighting, signage, furniture, and a landscape palette that the City can integrate with Mayflower Dog Park, Escondido Creek Trail and Caballo Trail in order to establish a comprehensive design theme that unifies these recreational facilities.

After input from the community during three public workshops, the park's necessary physical program elements became very clear.

The following elements and potential activities have been sensitively integrated into the master plan:

- Vehicular access and Parking (for single vehicles and vehicles with equestrian trailers).
- Equestrian Facilities
 - Additional Arena - 100' x 200'
 - Improved Existing Arena
 - Therapeutic Riding Arena
 - Round Pens (Permanent and Mobile)
 - Additional Corrals
 - Spectator Seating
- Wash Racks
- Muck Storage
- Staging Area for Caballo Trail in Daley Ranch
- Separate Pedestrian and Equestrian Access to Upper Existing Arena
- Public Picnic Areas
- Bicycle Storage Facilities
- Restrooms
- Drinking Fountains
- Maintenance and Service Facilities
- Trash Bins - Small and Large
- Stormwater Management Solutions
- Equestrian Trails for Therapy
- Pedestrian and bicycle linkage to Escondido Creek Trail
- Signage
- Public Art
- Educational Opportunities
 - History
 - Nature
 - Horses
 - Dogs
- Community Hall Building
- Naturalize Escondido Creek between the south boundary of the park and its beginning approximately 1/4 mile north of the park
- Strong Connection Between Mayflower Dog Park and El Caballo Park



Master Plan Concept

The most successful community parks are those that unite a community. If a community consists of multiple cultures the park should bring everyone together to learn about each other and strengthen the community by increasing understanding of those around us. A strong community is made up of individuals with varying backgrounds and desires but with a common goal to come together and celebrate their differences respectfully.

This project, focusing on equestrian activities, will have a mix of users such as the Charros Association, horse riders, those who just love to be around horses, dog lovers, various groups such as the Wounded Warriors, Therapeutic Equestrian groups, residents from nearby and afar, businesses, education institutions, charitable organizations and many more.

The concept of the park is inspired by the strength of a multi-stranded rope, much like the lassos used by Charros. Understanding that a rope is made up of very small strands of individual strings and intertwined with many other strings, those strings become very strong as a single rope.

Braiding the variety of people of Escondido together into a strong “rope” of shared activities and interests yet one that also has flexibility is the guiding design concept.

The concept of a rope is reflected literally in the intertwined rope paving pattern within the sidewalk encircling the central lawn area and figuratively in the incorporation of Nature, Horses, Dogs, History, and Education into the park. These features will make this park a destination for many.

The Park includes a central, open, passive recreational lawn area surrounded by a variety of natural play opportunities, picnic groves, an equestrian center and a strong pedestrian access path linking Mayflower Dog Park with El Caballo Park creating one cohesive park.



Final Master Plan

The Master Plan, shown on the following page, reflects the overall plan and the subsequent pages provide enlargements showing greater detail.

It is proposed that the park will be built in phases as suggested later in this report.

Master Plan Features Legend

- ① Improved Existing Arena
- ② Lower Equestrian Area Development
- ③ Connection to Caballo Trail and Daley Ranch
- ④ Therapeutic Riding Arena
- ⑤ Common Gathering and Picnic Areas
- ⑥ Tributary Creek
- ⑦ Horse Trailer Parking
- ⑧ Overflow Parking
- ⑨ Improved Escondido Creek
- ⑩ Connection to Escondido Creek Trail
- ⑪ Mayflower Dog Park
- ⑫ Hidden Valley Obedience Club
- ⑬ Therapeutic Riding Trail
- ⑭ Monument Sign 1
- ⑮ Monument Sign 2
- ⑯ Monument Sign 3
- ⑰ Monument Sign 4



Figure 43: Final Master Plan



Existing Arena Area Improvement Description

This area has an existing arena designed and built by the Charros who currently use the facility. There is a small set of bleachers at the east end of the round arena and make-shift amphitheater seating on the south end of the arena taking advantage of an existing slope.

The condition of the arena requires improvements to make the arena safer for animals and riders. It is proposed that the arena will be improved with better railings, solid siding and improved corrals for temporary holding of livestock.

The railings will be divided by stone pillars using matching natural stone used throughout the park.

For separation between pedestrians and horses, horses enter the arena area from the north using a dedicated trail fenced off from the “event” picnic area to the east of the entry trail. The horses are led or ridden over a bridge designed to reduce balking by the horse.

Improved Existing Arena Features Legend

- ① Improved Fencing
- ② New Bleachers
- ③ New Seating on Slope
- ④ Ticket Booth and Restrooms
- ⑤ Accessible Path from Disabled Parking Below
- ⑥ 3-Rail Fencing to Control Visitor Access
- ⑦ Gates
- ⑧ Citrus Grove (To Reflect Historic Use)
- ⑨ Shade Trees
- ⑩ Announcer’s Stage

Improved Existing Arena Features Legend

- ⑪ Band Stand
- ⑫ 16’ Wide Bridge with Decomposed Granite Paving
- ⑬ Pedestrian Bridge
- ⑭ New 12’ x 12’ Corrals
- ⑮ Muck Storage
- ⑯ Trash Enclosure
- ⑰ Wash Racks (2)
- ⑱ Bull Corrals
- ⑲ Round Pen
- ⑳ Vehicular Turn-Around
- ㉑ Emergency Vehicular Hammerhead
- ㉒ Equestrian Entry Path
- ㉓ Shade Structure
- ㉔ BBQ, Picnic and Dance area
- ㉕ Changing Room
- ㉖ Expanded Vehicular Access
- ㉗ 4-Rail Fencing
- ㉘ Existing Eucalyptus to be removed per phasing plan and replace with native trees



KEY MAP

Figure 44: Existing Arena Area Improvements



Lower Equestrian Area Description

This area is the heart of the park in that it provides amenities for all. Equestrians, dog lovers and anyone else will be able to interact in this space safely.

The Equestrian components include a 100'x200' riding arena, two 55' portable round pens, a 45' round pen, corrals for a variety of purposes, multiple seating areas for events in the large arena and appropriate safety fencing and a staging area to Daley Ranch.

This area is set 14' below and centered on the upper shade structure and picnic space creating optimum viewing opportunities.

The round lawn area, surrounded by paving with a “lasso” pattern, is integrated into the park providing passive and light active play opportunities. The perimeter of this space has three shaded picnic spaces, four horse corrals for visitors arriving by horse and a landscaped area to the west that will provide opportunities to learn about the environment and history of the area. An additional lawn area is provided north of the circular lawn area creating close viewing of activities in the large arena. The edges are natural without definition to create a rustic park appearance.

Children exploring this area may find opportunities to make etchings of “fossils” of paw prints, leaves and other natural elements. Descriptions of these findings will be located near the Community Hall. QR codes may also be available to aid in looking up additional information. Grinding stones may also be found.

Outdoor classrooms may occur in the lawn areas, shaded picnic areas and the space between the Community Hall and the large arena.

Opportunities for public art surround the circular lawn area. The Mayflower Tree is included in the potential provision of public art and is proposed to be relocated in this area.

Lower Equestrian Area Features Legend

- ① Community Hall Building with 40' x 40' Multi-Use Space, Restrooms, Office Space, Kitchen/Concessions Space, Wrap around Porch and 2nd floor caretakers apartment
- ② 100' x 200' Arena
- ③ 55' Round Pen
- ④ 20' x 24' Corrals
- ⑤ Bleachers
- ⑥ Amphitheater Seating
- ⑦ Wash Racks
- ⑧ 12' x12" Corrals
- ⑨ Staging Area at Caballo Trailhead
- ⑩ Mounded Lawn Area
- ⑪ Lawn Area Surrounded by Paved Walkway with Lasso Pattern to Reflect Equestrian Activities
- ⑫ Shade Structures
- ⑬ Nature Exploration Area
- ⑭ Public Art Opportunity
- ⑮ Standard Vehicular Parking
- ⑯ Disabled Parking Stalls
- ⑰ 24' Wide Two-Way Improved Access Road
- ⑱ Tributary Creek Improved with Native Planting
- ⑲ Therapeutic Arena
- ⑳ 2-Rail Fence
- ㉑ 3-Rail Fence
- ㉒ 4-Rail Fence



KEY MAP

Figure 45: Lower Equestrian Area

Horse Trailer Parking Description

Providing a portion of the necessary parking for large equestrian events, 15 trailer spaces are proposed with decomposed granite paving and hitching posts at each space. These spaces have potential to hold 15 - 72 horses depending on the number of horses carried in each trailer.

A maintenance facility structure for the park is provided at the north end of the parking area along with a trash enclosure and muck storage facility.

Horse riders, arriving by trailer, have easy and safe access to the new entry area to Caballo Trail in Daley Ranch.

The staging area is equipped with hitching posts, picnic tables, 12x12 corrals, wash racks and shade creating opportunities for people to meet before and after a ride. This also provides opportunities for non-equestrians to get close to horses and talk with equestrians.

Parking for standard vehicles, located on the west side of “Save A Life driveway” are proposed to be decomposed granite.

A gate is proposed at the entrance to the Escondido Humane Society to control traffic if, in the future, a new access road is constructed at the intersection of Lake Wohlford Road and East Valley Road.

Horse Trailer Parking Features Legend

- ① Community Hall Building / Restrooms / Caretaker Residence / Offices - raised 18”
- ② Porch - Raised 18”
- ③ Disabled Parking Stalls
- ④ Trailer Parking - 18’ x 60’ minimum with Decomposed Granite Surface
- ⑤ Emergency Drive Through and Turn-Around Loop
- ⑥ Maintenance Building
- ⑦ Muck Storage - Covered
- ⑧ Trash Enclosure
- ⑨ Maintenance Crew Parking
- ⑩ Pedestrian Access to Existing Pedestrian Bridge
- ⑪ Escondido Creek Channel
- ⑫ 4 - Rail Fence
- ⑬ Escondido Creek Trail Extension
- ⑭ City Entry Monument #1
- ⑮ Gate for Future Expansion of Road
- ⑯ Staging area for Daley Ranch
- ⑰ Bicycle Rack
- ⑱ Entry Monument #4



KEY MAP

Figure 46: Horse Trailer Parking

Lower Multi-Use Parking Description

Providing important overload parking for large events occurring in the park, this parking area will also provide parking for the Hidden Valley Obedience Club that has needs for standard parking stalls and motor home stalls.

The paving is to be decomposed granite and will drain to the landscape area between Beven Road and the parking lot.

Parking along the south edge of the lot is on GrassPave2 material to visually widen the landscape appearance.

The Park Entry Monument #2 identifies the park and other amenities found in the area. Pedestrians walk through the Ranch style gateway and walk along a meandering DG path with benches along the way. The landscape will be used to provide visual interest and water quality treatment meeting hydromodification requirements.

Just inside the entry gateway are bicycle racks, picnic tables and a drinking fountain to provide important rest and hydration for cyclists attracted to the area.

Equestrian access to the main park is provided by a bridge immediately north of the existing vehicular bridge crossing Escondido Creek.

Lower Multi-Use Parking Features Legend

- ① Hidden Valley Obedience Club
- ② Park Entry Monument Sign #2
- ③ Existing Concrete Walkway
- ④ New Decomposed Granite Pathway with benches
- ⑤ Decomposed Granite Parking Lot
- ⑥ 28' x 75' Trailer and Motorhome Parking
- ⑦ Log Tire Stops from Eucalyptus Trees On-Site
- ⑧ 3 - Rail Fence
- ⑨ 4 - Rail Fence
- ⑩ GrassPave2 Parking Spaces to Expand the "Park" Experience
- ⑪ Shade Trees
- ⑫ Escondido Creek Trail Extension
- ⑬ Decomposed Granite Pathway
- ⑭ Bicycle Rack
- ⑮ Drinking Fountain
- ⑯ Picnic Table
- ⑰ New Concrete Pathway
- ⑱ 16' Wide Bridge with Decomposed Granite Paving



KEY MAP

Figure 47: Lower Multi-Use Parking

CITY OF ESCONDIDO
EL CABALLO PARK - MASTER PLAN



Dog Park - El Caballo Park Connection Description

Connecting Mayflower Dog Park with El Caballo Park is critical in supporting the park design concept of bringing people together and maximizing opportunities to share experiences. The concrete channel of Escondido Creek strongly divides the two park spaces making it difficult to move from one space to the other.

A rustic bridge is proposed to link the two spaces with an entry point strategically located at the southwest end of Mayflower Dog Park with a direct view and path to the heart of El Caballo Park. Existing parking is immediately adjacent to this park entry.

On the Dog Park side, a restroom is proposed with bicycle racks and drinking fountain. Following the City's design guidelines for Escondido Creek Trail, accent paving is proposed at this "node" where it connects with the proposed extension of Escondido Creek Trail.

Dog Park - El Caballo Park Connection Features Legend

- ① Dog Park Connection Node
- ② Public Art
- ③ Restrooms
- ④ Escondido Creek Channel
- ⑤ New Pedestrian Bridge
- ⑥ Existing Culvert
- ⑦ Trailer Parking
- ⑧ Bicycle Rack
- ⑨ Drinking Fountain



KEY MAP

Figure 48: Dog Park - El Caballo Park Connection



3-D Views Into Park



Figure 49: View Across Bridge Into Heart Of Park



Figure 50: View Of Community Hall And 100' x 200' Arena

MASTER PLAN
DESCRIPTION

3-D Views Into Park



Figure 51: View From Above Daley Ranch Looking South



Figure 52: View Of Lower Equestrian Area

MASTER PLAN
DESCRIPTION

3-D Views Into Park
Park Plant Palette



Figure 53: View Of Lower Equestrian Area From Charreada Picnic Shade Structure

Plant Palette

Planting in the park will sensitively integrate into the existing native plant palette with the introduction of additional native plants found in the Southern California region.

Plants will be used to mitigate for disturbed vegetated habitat within the park and also for educational purposes.

Non-native plant material consists of the lawn play areas and proposed fruit trees. One area of Citrus trees and one area of Avocado trees are planted in “orchard” forms to replicate the local historic land use of this area.



Populus fremontii

Grasses

Scientific Name	Common Name
Festuca californica	California Fescue
Juncus acutus	Spiny Rush
Juncus mexicanus	Mexican Rush
Leymus tritcoides	Valley Wild Rye
Muhlenbergia rigens	Deer Grass

Groundcovers

Scientific Name	Common Name
Aguilegia formosa	Western Columbine
Baccharis spp.	Coyote Bush
Ceanothus spp.	Mountain Lilac
Eschscholzia californica	California Poppy

Shrubs

Scientific Name	Common Name
Arctostaphylos manzonita	Common Manzanita
Artemesia californica	California Sage brush
Baccharis salicifolia	Mule Fat
Ceanothus thyrsiflorus	Blueblossom
Encelia californica	California Brittlebush
Heteromeles arbutifolia	Toyon
Mimulus aurantiacus	Sticky Monkeyflower
Prunus ilicifolia	Hollyleaf Cherry
Rhus integrifolia	Lemonade Berry
Romneya coulteri	Coulter’s Matilija Poppy
Rosa californica	California Wildrose
Rubus ursinus	California Blackberry
Salvia clevelandii	Cleveland Sage
Sambucus Mexicana	Elderberry
Sysirichium californicum	California Golden Eyed Grass
Vitis girdiana	Southern California Grape

Trees

Scientific Name	Common Name
Cercis occidentalis	Western Redbud
Platanus racemosa	Sycamore
Populus fremontii	Fremont Cottonwood
Quercus agrifolia	California Live Oak
Salix gooddingii	Goodding’s Willow
Salix laevigata	Red Willow
Salix lasiolepis	Arroyo Willow



Ceanothus spp.



Muhlenbergia spp.

Drainage and Water Quality Summary

I. Regulatory Requirements

As per the requirements imposed on all projects in the City of Escondido, this project will be made to be compliant with the current San Diego County MS-4 Permit, of which the City of Escondido is a co-permittee. San Diego County and its co-permittees are now working under the RWQCB Order No. R9-2009-0009-DWQ, which establishes the working criteria for the countywide model SUSMP and HMP requirements. The newest Order No. R9-2013-0001, adopted in 2013 has several steps that need to be completed before projects will be required to implement those new guidelines. The County wide model SUSMP can be found on the Project Clean Water Web Site hosted by the RWQCB.

Based on the SUSMP Applicability Checklist used by the City of Escondido and the County of San Diego, the El Caballo Park project is considered a Priority Development Project because it will be disturbing greater than 1 acre of land surface. The project may also be considered to fit into Category B (Commercial) since it is a recreational facility, E (Restaurants) since the project includes a concession stand that likely will sell refreshments, H (Parking Lots) since the project is proposing on-site parking, and I (streets roads and highways) since the Fire Department access road is paved. While the project does propose a few small impervious areas-mostly for accessible parking and small

buildings, the area of imperviousness, as compared to the overall site area, is insignificant. The few small areas of impervious surfaces are more than compensated for by the increase in soil retention of the equestrian arena areas. Based on this reasoning the project is considered HMP exempt and will not be required to implement flow control measures. The project will also incorporate Low Impact Development (LID) methods to conserve natural features, set back development from natural water bodies, minimize imperviousness, maximize infiltration, and retain and slow runoff.

II. Stormwater Treatment Features

Based on the mentioned project categories, the project is expected to produce pollutants which will include sediment, nutrients, heavy metals, organic compounds, trash and debris, oxygen demanding substances, oil and grease, bacteria and viruses, and pesticides. The project is located in the Escondido Hydrologic Sub Area of the Escondido Creek Hydrologic Area of the Carlsbad Hydrologic Unit (904.62). The project discharges to the Escondido Creek which discharges to the San Elijo Lagoon which discharges to the Pacific Ocean. Known downstream water quality impairments include: Metals/Metalloids, Nutrients, Inorganics, Pathogens, Pesticides, Salinity, Sediment, and Toxicity. Based on the downstream impairments, the primary pollutants of concern are: Sediment, Nutrients, Metals, Pathogens, and Pesticides. The storm water treatment features that have the highest levels of treatment effectiveness with respect to the primary pollutants of concern are infiltration facilities, followed by bio-retention facilities. Based on the County Soil Hydrologic Groups map, the project

appears to be within the Group B zone. Group B soils have a moderate infiltration rate when thoroughly wetted. This soil type is expected to be very effective with respect to its ability to infiltrate storm water, therefore either of these methods of treatment are feasible for this site.

III. Drainage Design

Per current LID standards, the drainage and storm water quality treatment design for this project will treat the runoff originating from the project site and specific use areas as close to the points of generation as possible. In order to effectively treat the runoff generated by the park areas, the offsite flows will need to be diverted to not interfere with or overload treatment facilities designed to treat smaller specific areas. The drainage design for this project is intended to pass existing offsite flows through and/or around the project untreated and un-detained, while isolating different use areas of the park and providing for maximum infiltration and treatment of pollutants.

The main offsite flow entering the project boundary is in the form of a natural channel that is the concentration of the runoff from the adjacent hills and the overflow of Lake Dixon. This channel is mainly a natural channel with some areas of concrete lining. This channel is intended to be kept in almost original condition to pass the offsite drainage through the site and accept treated drainage from several project areas.

The Northeast quadrant (Drainage Areas A, C and E) of the site receives runoff from the existing Humane Society property and Daley Ranch. This runoff is in the form of sheet flow that generally

flows Southerly. The project proposes to direct these flows Easterly along the northerly project boundary by means of selective grading and natural earthen berms and discharge the runoff to the Escondido Creek and/or collect portions of the flows in a catch basin structure and pipe storm runoff to the flow-thru channel.

The southerly boundary and primary Arena area will be isolated from offsite drainage coming down the hills by a 1,200 foot long concrete brow ditch. The brow ditch will divert runoff easterly and westerly around the Arena area and direct it back into the existing pass thru channel.

The on-site drainage areas will be divided and treated as follows:

A. Eucalyptus Grove Area along Northerly Boundary (Drainage Area A)

The Northwest quadrant (Drainage Area A) of the site receives runoff from the hills headed up to Daley Ranch. This runoff currently flows into the natural channel. With the exception of the non-native plant removals, the northwest quadrant of the site will remain in a natural state and those flows will continue to flow to the natural channel as they historically have.

The southerly project boundary accepts runoff from the hill just south of the property. These flows will be collected in a proposed brow ditch and channeled away from the project development area and discharged to points at the western and the eastern ends of the natural channel.

B. Improved Existing Arena Area (Drainage Area B)

The runoff from the existing arena area will drain by way of sheet flow to the area of the paved fire access road. The area of the arena will be considered self-treating since the proposed sand soil mixture of the arena will give this area a very large moisture holding capacity compared to the expected rainfall amounts. The arena areas are not expected to produce any significant runoff. The surrounding areas will all be natural ground surfaces and are expected to offer a significant amount of infiltration. The runoff that does reach the paved fire access road will be significantly pre-treated by the time it reaches the pavement. Once it reaches the pavement it will follow the paved access road to a proposed infiltration/ bio-retention area at the southern end of the trailer parking area (Drainage Area E).

C. Trailer Parking Area (Drainage Area E)

The trailer parking area will drain by way of sheet flow in a generally southern direction. At the northern end of the trailer parking area is a small maintenance building and covered areas where the accumulated horse waste products will be stored prior to removal. The parking area will be surfaced with decomposed granite (DG) and will provide a large area for sub-surface storage and infiltration of stormwater. The relatively small impervious area of the maintenance building and muck storage areas will be treated by natural processes during the travel time across the DG parking area. Runoff that does reach the southern end of this area will be treated in the previously mentioned infiltration/ bio-retention area.



D. Lower Equestrian Area (Drainage Area C)
The lower equestrian area is composed of one rectangular arena and two smaller round arenas. The ground surface will slope upward to the west. On top of the sloped area will be a shade structure/ concession area. In front of the concession area will be amphitheater style seating. All of the drainage from Drainage Area C is directed by way of sheet flow to an infiltration/ bio-retention area next to the existing flow thru drainage channel. All of the runoff from this area will be treated either by natural process (infiltration) as it travels to the bio-retention area, or treated in the bio-retention area before it is released to the flow-thru channel.

E. Common Gathering and Picnic area (Drainage Area D)
The Common Gathering and Picnic (Picnic) area will be surfaced with turf and surrounded by D.G. sidewalks. The entire area will be graded to drain to the lawn area where it will be treated by the natural processes of the grass filtration and infiltration. Any excess runoff will be piped to the flow-thru channel.

F. Therapeutic Arena Area (Drainage Area F)
The Therapeutic Arena Area has an existing ground surface that slopes gradually to the south. This area is entirely natural ground surface or engineered equestrian soil mix. The drainage from this area will follow the existing ground slope and drainage patterns and drain southerly along Save a Life Road. All surface runoff in this area will be treated by natural processes.

G. Overflow Parking Area (Drainage Area G)
The overflow parking area will be similar to the

trailer parking area in that it will be surfaced with decomposed granite (DG) and will provide a large area for sub-surface storage and infiltration of stormwater. This area of the project slopes gently to the south. At the southern end of this area any precipitation that becomes runoff will be collected in an infiltration/ bio-retention area where it will be treated by infiltration or treated and released.

IV. Treatment Sizing
Stormwater treatment facilities are generally sized based on a percentage of the impervious areas that they are treating. Since this site has a low ratio of imperviousness to “open” (pervious) space, and the advantage that the site surfacing materials also provide significant storm water treatment properties, the integration of the treatment features is not expected to be a significant concern.

As discussed earlier, the primary treatment control BMP’s will be Infiltration and Bio-retention. The Bio-retention facilities sized for Areas B and E will have a 1,500 square foot minimum surface area. The Bio-retention facility for Area C will be built to a minimum of 500 square feet of surface area. The Bio-retention facility built for Area G will be built to 660 square feet. Each of these facilities will be built with a 36” deep bio/infiltration pit and a minimum 10” water storage depth at the surface.

V. Stormwater Maintenance
The maintenance of the drainage facilities and storm water treatment features is expected to be routine in nature. All of the stormwater treatment features are incorporated into the project design such as pervious paving for the

parking lots, infiltration/Bio-retention trenches, etc. The stormwater treatment facilities all utilize natural processes to clean and filter the storm runoff. With reasonable site maintenance, such as collecting animal waste into approved structures, regular litter pick-up, and regular landscape maintenance, the Stormwater features should remain effective indefinitely. Primary inspections should take place after large rain events. Facilities in need of maintenance will exhibit excessive ponding or long draw down periods. Should any features require special maintenance, such as a clogged infiltration trench, then the problem should make itself obvious and easily identifiable by simple observation during routine landscape maintenance operations. Typical maintenance includes raking or disturbing the top layer of the Bio-retention facility to distribute fine sediments. If the system becomes clogged with sediments, replacement of portions of the bio material may be necessary.






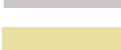


For more detailed report, see Appendix at end of this document.

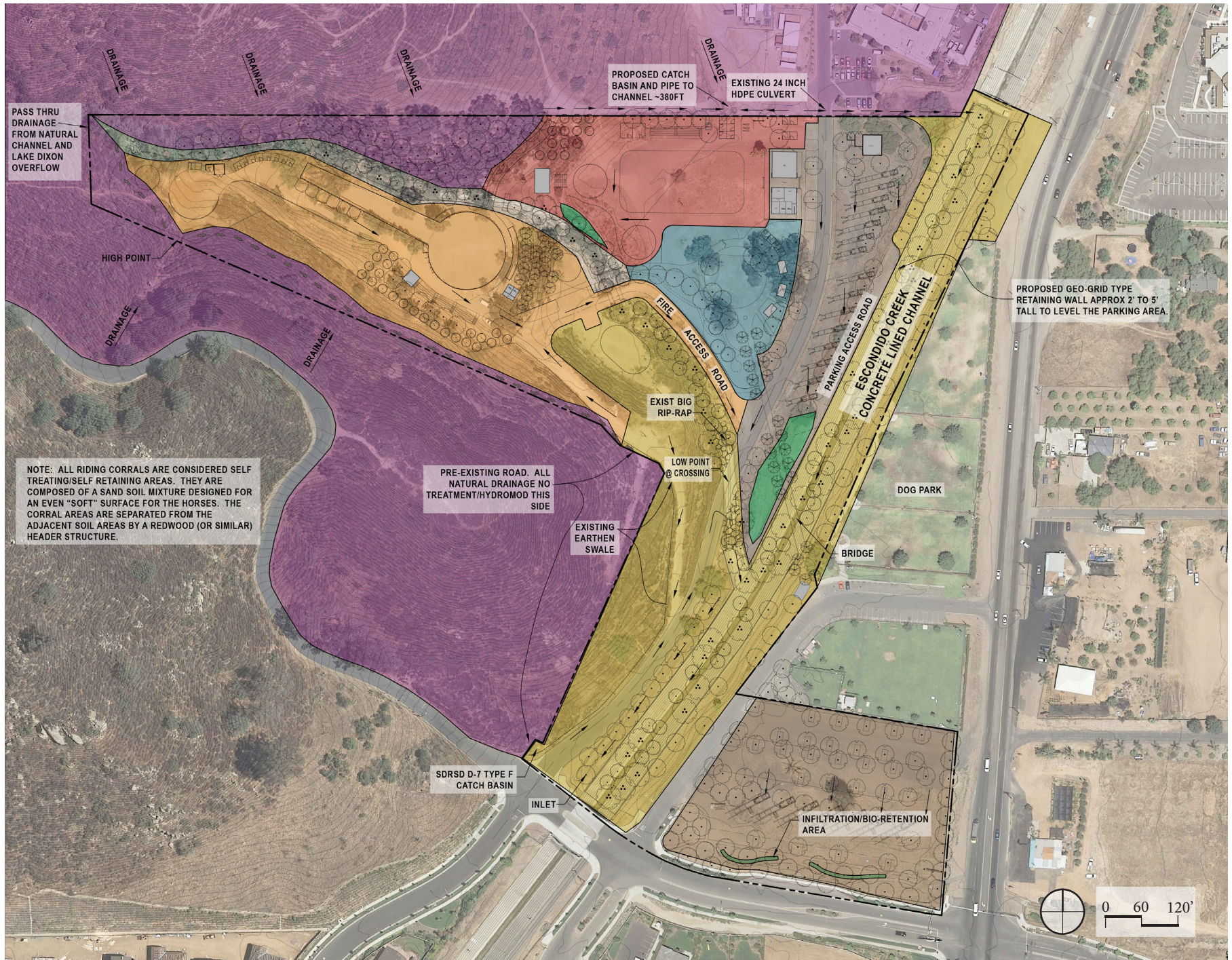
MASTER PLAN
DESCRIPTION

Drainage and
Water Quality



Drainage Area Legend

	Drainage Area 'A' / Off-Site
	Drainage Area 'B'
	Drainage Area 'C'
	Drainage Area 'D'
	Drainage Area 'E'
	Drainage Area 'F'
	Drainage Area 'G'
	Infiltration/Bio-Retention Basin



NOTE: ALL RIDING CORRALS ARE CONSIDERED SELF TREATING/SELF RETAINING AREAS. THEY ARE COMPOSED OF A SAND SOIL MIXTURE DESIGNED FOR AN EVEN "SOFT" SURFACE FOR THE HORSES. THE CORRAL AREAS ARE SEPARATED FROM THE ADJACENT SOIL AREAS BY A REDWOOD (OR SIMILAR) HEADER STRUCTURE.

Figure 54: Drainage / Water Quality Concept Plan

Master Plan Elements and Materials

The design of park elements and the material selection have been made to set the tone and character of the park. The design of all elements reflect a mexican/western ranch and are designed to be simply constructed, installed and maintained.

Key elements include:

- Buildings
- Shade structures
- Roads
- Fencing
- Walls
- Parking Lot Materials
- Lighting
- Trash Bins
- Paving
- Planting

Rustic, durable and low cost materials are to be specified.

Signage

To support the materials concept of the park and to bring in materials used outside of the park, the design of the entry monuments are simple in form and use a combination of natural stone, manufactured stone and wood-like materials.

Natural stone is used in low freestanding walls or raised planters reminiscent of the historic drystack stone walls found in the area used for terracing in the old orchards.

Manufactured stone is used on the sign walls to match the manufactured stone used in the adjacent Eureka Springs development and pillars used at the existing bridge over the Escondido Creek channel.

Wood-like material railings are used for the backdrop of signage text to blend with the new fencing throughout the park.



Entry Monument Sign #1

Figure 55: Entry Monument Sign #1

Entering Escondido from the northeast, drivers will see this entry monument at the north end of the park, next to East Valley Parkway. This monument acts as the gateway signage to the City and identifies the following nearby destinations:

- El Caballo Park
- Daley Ranch
- Escondido Humane Society
- Mayflower Dog Park
- Hidden Valley Obedience Club



Entry Monument Sign #2

Figure 56: Entry Monument Sign #2

At the corner of East Valley Parkway and Beven Drive, sits the primary entry monument for the park. Using all the same materials of each monument, this monument boldly announces the pedestrian entry to El Caballo Park. The signage is reminiscent of an entry to a great rancho. The railings with signage text identifies the following:

- Daley Ranch
- Escondido Humane Society
- Mayflower Dog Park
- Hidden Valley Obedience Club



Entry Monument Sign #3

Figure 57: Entry Monument Sign #3

At the corner of Beven Drive and Save A Life drive, the third monument is located to direct visitors further into the park. Fencing is connected to the monument and continues into the park, creating a simple barrier to indicate no trespassing onto the Escondido Water Treatment Plant property on the other side of the fence.

Signage on the monument text is the following:

- El Caballo Park
- Daley Ranch
- Escondido Humane Society



Entry Monument Sign #4

Figure 58: Entry Monument Sign #4

At the staging area to Daley Ranch, a ranch-like entry gateway is proposed. With Daley Ranch signage on one side and El Caballo Park signage on the other side, this gateway acts as an entry to Daley Ranch as well as an entry from Daley Ranch into El Caballo Park. This concept emphasizes the idea that El Caballo Park is more than an entry to Daley Ranch but it is also a destination for horse riders, cyclists and hikers.



Architectural Style

Architectural styles are to reflect an old style ranch or hacienda barn and supporting ranch structures. A combination of wood and stucco may be used.

The porch wrapping around a portion of the Community Hall will provide opportunities for community gathering, shaded seating and viewing of the equestrian and dog training activities.

Architectural Space Programming

Within the Community Hall Building(s), space shall be provided for an open hall space for public and private events, a kitchen and concessions space, an office, public restrooms and a park caretaker's apartment.



Figure 59: Architectural Styles

Stone Walls

Just inside the park boundaries, at the southwest corner, are dry stacked stones believed to be originally built to create terraces for the old citrus groves. These walls reflect the craftsmanship of the ranchers.

New walls in the park will be made of similar stone and will be dry stacked. New walls may be used in various areas in the park to demonstrate historic construction methods. They may also provide opportunities to provide hands on experience for students and/or boys and girl scouts. Such walls may be built in the “Nature Exploration” area.



Figure 60: Stone Walls

Furniture

Furniture throughout the park is to be rustic and made of natural looking materials. Benches may be made of the Eucalyptus trees growing on site and are to be made at the time the Eucalyptus trees are cut down at the northwest corner of the property.

The furniture may provide opportunities to provide hands on experience for students and/or boys and girl scouts. Benches and tables may be built in the “Nature Exploration” area, picnic areas, pathways and gathering spaces. Each piece of furniture becomes a unique element representing community involvement and creates a sense of ownership by the community.



Figure 61: Furniture

Shade Structures

Shade structures throughout the park provide much needed shade in the hot summers of Escondido. They will be meeting places for families and friends to picnic or relax. Structures are to be built using corrugated metal roof material and Corten steel posts and beams or large timber wood from the existing Eucalyptus to be removed from on-site.

As in some of the other built elements in the park, these structures may be built by students or boys/girls scouts with supervision with the same quality standards of any other public project.

Materials are selected to reduce the cost of park development and to follow a style of construction on a “no-frills” working ranch. Quality construction will still be required as in any other public park.



Figure 62: Shade Structures



Figure 63: Lighting

Lighting

To reduce negative impacts on the environment and native wildlife habitat, park lighting must be kept to the minimum required to meet City park requirements. Lighting will be provided in key areas around structures, the community gathering spaces and pathways, where absolutely required.

To maintain the beautiful distant views off site, the large arena is not to be lit. Tall light standards are typically used for such an arena and would distract from these views.

Lighting for the charreada arena is proposed as that area already has reduced distant views.

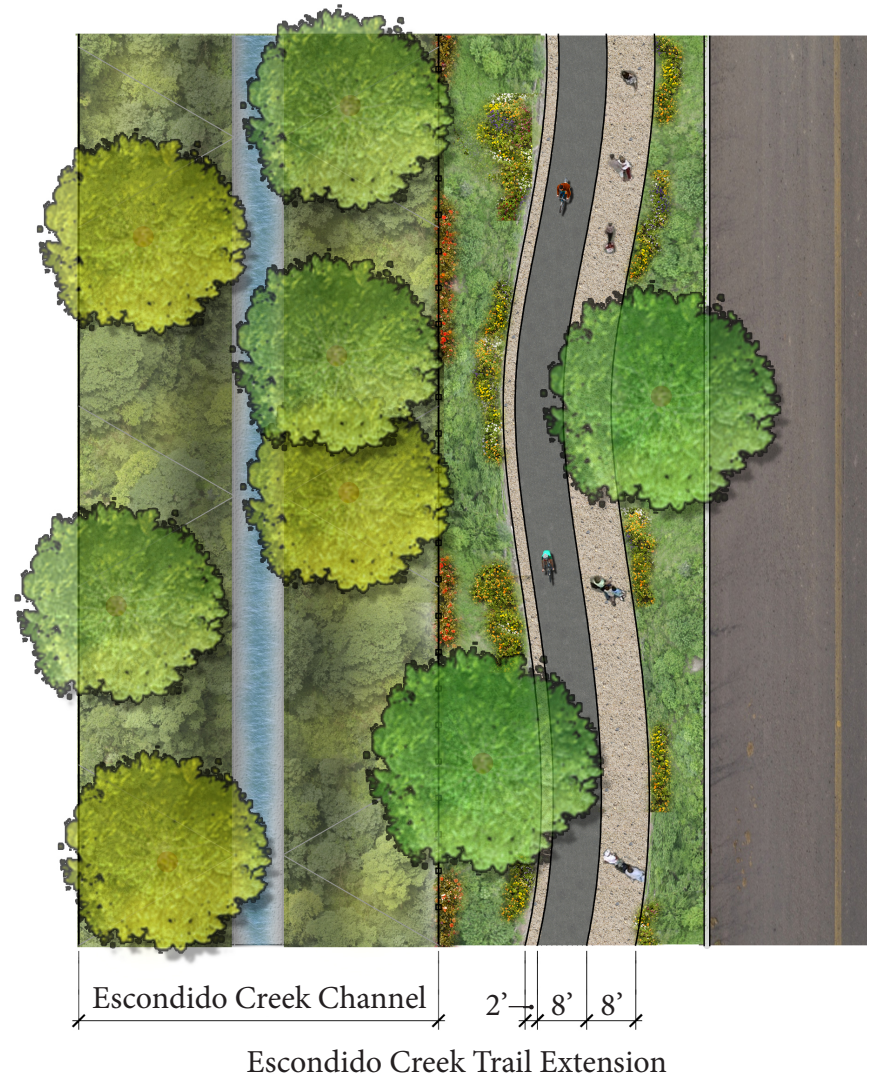
Escondido Creek Trail Extension

The trail will accommodate cyclists and pedestrians with special consideration of large numbers of pedestrians arriving for events in the park. The width of the trail consists of a 2' wide DG section, 8' wide asphalt and 8' wide DG section for overflow parking visitors.

The additional 8' of DG will allow cyclists to ride the trail without riding through crowds.

The extra wide trail meanders from Beven Drive to the new bridge and then narrows down to a 12' wide trail consisting of 2' wide DG sections on each side of an 8' wide asphalt path.

Figure 64: Escondido Creek Trail Extension



A 4-Rail fence, 5' high, will separate the trail from the Escondido Creek. Native plants will be used for the length of the trail with vines spaced intermediately along the fence line.

Parking Lot Tire Stops

Adding to the natural rural character of the park, log tire stops are to be used in all parking areas, except at trailer spaces. The logs are to be made from the existing Eucalyptus trees on site and will help identify location of each parking stall.



Figure 65: Parking Lot Tire Stops



Figure 66: Hitching Posts

Hitching Posts

In various locations throughout the park, hitching posts are strategically located for temporarily holding horses. These posts are to be constructed using treated wood posts and cross beams made from the existing Eucalyptus trees on site.

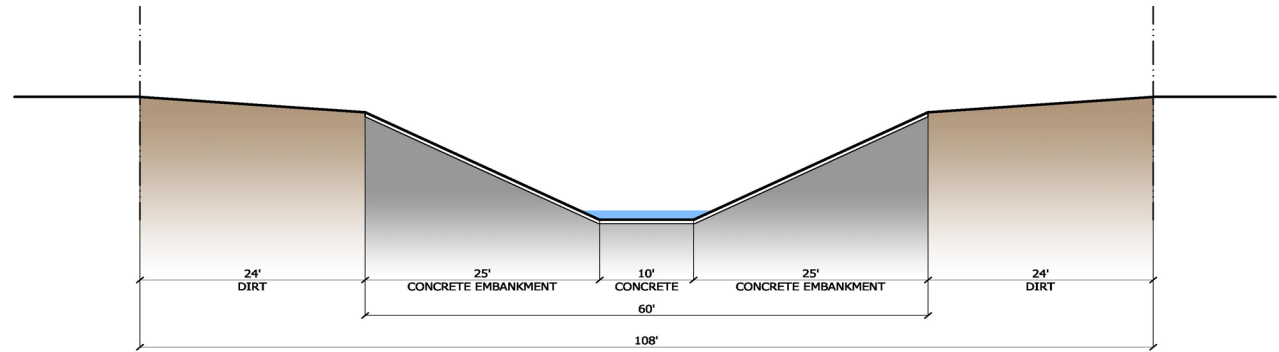
Escondido Creek - Potential Modification

The existing Escondido Creek, running along the east side of the park, is lined with concrete and has a concrete bottom. The master plan proposes to modify the creek, beginning at the north end of the concrete channel by removing the concrete sides and a portion of the concrete bottom replacing the concrete with vegetation as shown in the drawing to the right.

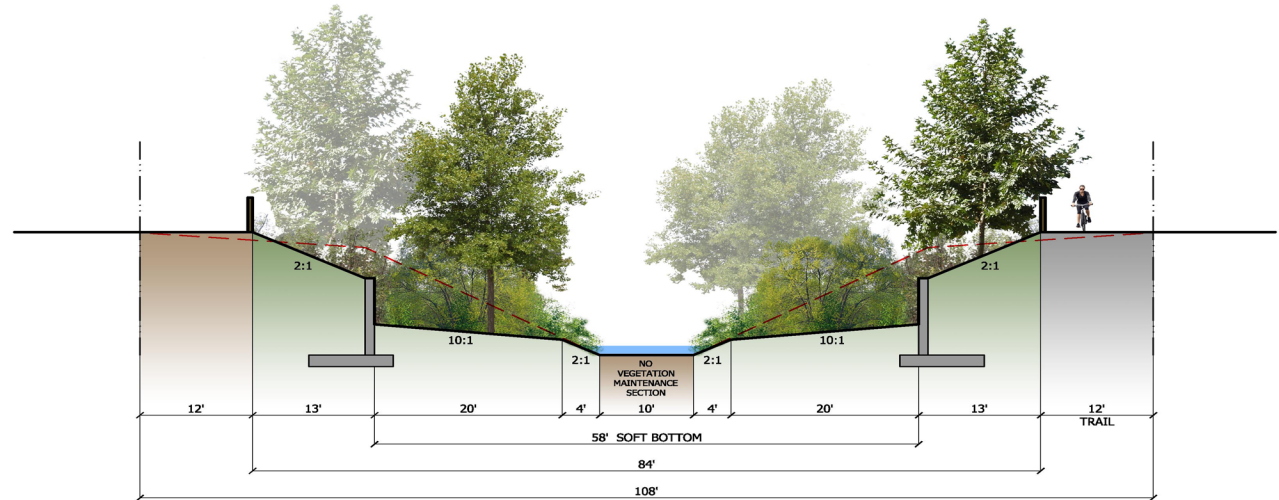
With the addition of trees and grasses, the creek will create a stronger visual connection between the Mayflower Dog Park and El Caballo Park and promote natural solutions to stormwater drainage.

An 8' wide concrete path is proposed to facilitate ongoing maintenance access.

Careful hydrologic flow analysis must be conducted prior to developing any details for this work. Drawings in this report depicting such modifications are conceptual only and not based on detailed studies.



ESCONDIDO CREEK - EXISTING SECTION
CAPACITY: 660 SF



ESCONDIDO CREEK - PROPOSED SECTION
CAPACITY (WITHOUT VEGETATION): 885 SF

Figure 67: Escondido Creek Potential Modification

Fencing Master Plan Description

Fencing throughout the park is intended to control movement of people and animals for a safe park. Where potential conflicts exist for horses and people, low to moderate height fencing is proposed and where animals need to be contained, high fencing is proposed.

Fencing is comprised of five different types serving different purposes but complimenting the mexican/western ranch style.

Fencing types include:






- 2-rail fence
- 3-rail fence
- 4-rail fence
- Pipe rail fence
- Pipe rail fence with wood siding

The 2, 3 and 4 rail fencing materials are of recycled material for durability and reduced long term maintenance. Vinyl fencing is not to be used in the park. Color is to be a dark brown or black.

Four rail fencing is to be used in areas requiring the most control and safety. Three rail fencing is to be used where moderate control and safety is required and two rail fencing is to be used where minimum control and safety is required but some control is needed.

Standard pipe rail fencing is used in portable round pens and is to have V-mesh fencing attached to the bottom three feet and on the outside to prevent unwanted entry of dogs and other animals that may alarm horses inside. Permanent round pens, Therapeutic arena and the large arena are to have flexible railings for safety.

Fencing Legend

	Pipe Rail Fence
	2 Rail Fence
	3 Rail Fence
	4 Rail Fence
	Existing Arena Improved Fence

Fencing for the Charreada arena is to have smooth surface siding on the inside of the arena to protect all animals and riders. Stone veneered posts, 24” square, wrap around the circular portion of the arena at 16’ on center with standard pipe posts centered between the stone posts.

Two rail fencing is proposed to identify “No Trespassing” onto Water Treatment Plant land. Fencing will have “No Trespassing” signage spaced along fence line.

For night-time security, a simple vehicular gate is located at the entry to the park along Save-A-Life Drive.

Fencing along East Valley Parkway is to be coordinated with the work associated with the widening of East Valley Parkway.

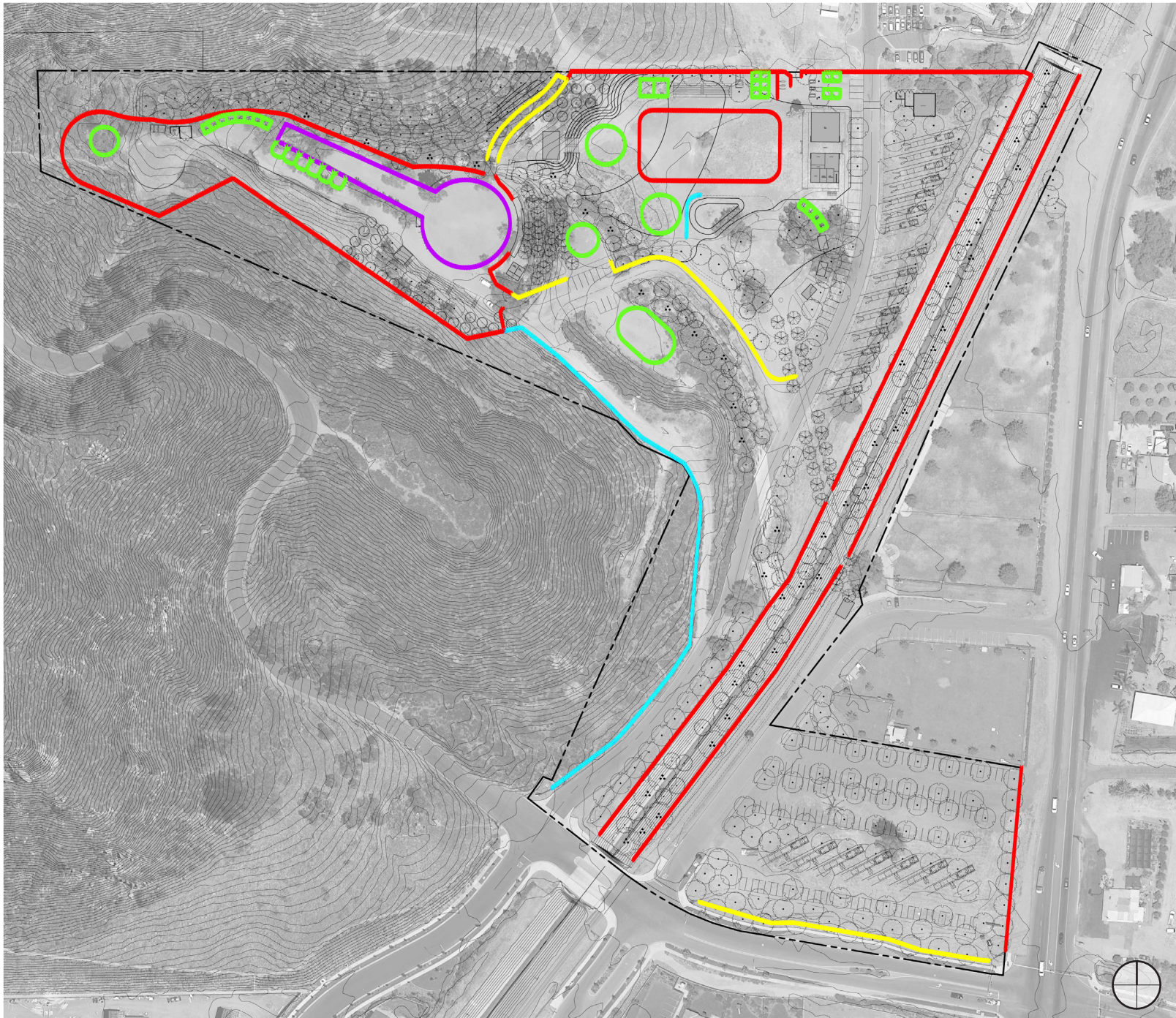


Figure 68: Fencing Master Plan



2-Rail Fencing



Figure 69: Fencing Types

3-Rail Fencing



4-Rail Fencing



Pipe Rail Corrals with Shade Structure

MASTER PLAN DESCRIPTION

Park Maintenance

Revenue Generation Opportunities



Park Maintenance:

The design of the park and the selection of potential materials are based on the need for long term sustainability at minimum costs to the City. It is suggested that a caretaker will live in an apartment above the Community Hall Building and in exchange for rent, the caretaker will maintain the park.

The use of nearly all native plants, with the exception of the lawn areas, will reduce the amount of landscape maintenance required.

The park lawn will be of a type that does not spread through rhizomes and must be mowed at intervals to ensure it never goes to seed. Where lawn is outside of the circular paved area, the lawn is to have a natural edge, allowing the lawn to have an informal line. This will reduce the need for “weed eating”.

A potential maintenance solution for equestrian areas is to allow a regular user group to hold events free of charge in exchange for regular maintenance of the area.

Revenue Generation Opportunities:

To help cover costs of maintaining the park, several opportunities exist within the design of the park to generate revenue for the City of Escondido. Opportunities to charge a space rental or lease fee include:

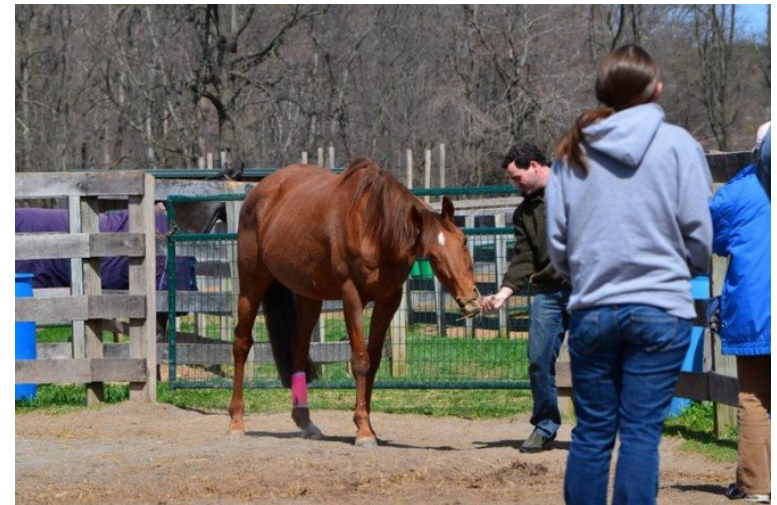
- Equestrian events inviting an audience. This may include charreadas, rodeos, dressage, etc. This would apply to the use of the existing arena and the large lower arena.
- Businesses, except non-profit organizations, wishing to use the therapeutic riding arena or other arenas for therapy or experiential learning classes.
- Events involving dog training or shows.
- Short term overnight trailer parking for multi-day use of the trails in Daley Ranch.
- Private events using the Community Hall Building
- Food concessions in Community Hall Building
- Food Trucks for special events

Revenue Generation Opportunities:

Creating spaces that are desirable to rent for the day or weekend will bring in revenue to support the operating costs of the park. In addition to equestrian events of many types, there are businesses that may use the facility to run classes based on “experiential learning” and may pay a fee to use the park.



Rodeos



Experiential Learning Courses Using Horses



Private Events in Community Hall

During these events, Food Trucks may also pay a fee to provide their services.

Private parties or meetings may also provide revenue to the City by paying fees to use the Community Hall building.



Chareadas



Food Trucks at Events

Planning Process



Planning Process

Prior to developing any portion of the master plan, the first public workshop was held to listen to what the public had to say about the park. It was important to the design team to not present any preconceived ideas so that the public was not influenced in any one direction. This approach would help create a sense of ownership of the final master plan by the citizens attending the meetings.

Each workshop asked the public to interact in design charettes, communicate with each other and then present their unique ideas from each table. These ideas were then discussed amongst the entire room to flush out what ideas worked best for the public's needs.

Between workshops, the design team prepared plans, based on the public's input, and returned to the next workshop to gain valueable input again. (See Figure 70)

EL CABALLO PARK MASTER PLAN

COMMUNITY MEETINGS ANNOUNCEMENT

Meet Tim Smith, President of Wynn-Smith Landscape Architecture, Inc., to learn about the process, timeline, and project concepts for the proposed El Caballo Park—a potential new equestrian-oriented public recreational facility.

All events will be held at:

**East Valley Community Center
2245 East Valley Parkway**

- Saturday, September 21, 12:30–3:30 p.m.
- Thursday, October 10, 6:30–8:30 p.m.
- Thursday, November 14, 6:30–8:30 p.m.

A special site visit will be held on Saturday, September 21, from 4:00–6:00 p.m., at the proposed El Caballo Park site, at 3410 Valley Center Road.

**For more information contact Loretta McKinney,
Director of Library and Community Services, at
760.839.4871 or lmckinney@escondido.org.**





Workshop #1

At the first workshop, the proposed boundaries of the park were presented, as provided by the City, along with a general understanding of the site history and current uses.

The public was asked to write down their thoughts about the following topics as they relate to the future development of the park.

Community Input Topics

- ETHOS AND VOICE
- RELEVANCE AND IMPACT
- EDUCATION
- COMMUNITY ENGAGEMENT
- VISITOR FEATURES
- OTHER ISSUES

(See figure 72 for responses to these topics.)

After a discussion of these ideas, they were asked to rank which park elements were most important to them and to add any additional elements that were missing from the chart. (See figure 71.)

Finally, the public was asked to visit the site with the design team to discuss analysis of the site and to share with the team what they saw as the unique characteristics of the site.





Figure 70: Project Timeline



Potential Program Elements Chart

The following program elements chart was provided at the first workshop to give the public an opportunity to indicate what was most important to them by placing a dot next to the program elements.

Workshop #1 – Community Input (Based on comments written by the residents.)
Workshop Meeting: 9-21-13

1. Ethos & Voice

- Preserve Past & Protect the Future
- Park will provide history and traditions of Mexican era cattle ranches, which were the foundation of our current communities in Southern California
- 4 legged facilities
- Heritage - Agriculture
- Peoples park
- Preservation of Nature/Wilderness/Environment
- Welcome to the North of City
- Regional Jewel
- Eco Tourism
- Unity
- Involvement
- Responsibility for the Community
- Teaching Compassion for animal and humans
- Build a better and safer Escondido
- Open & Inviting Connections for the Community

2. Relevance & Impact

- Unique activity
- Regional activity
- Enriched recreation
- Engage youth participation – no violence
- Habitat protection – 80 acres
- Artifact Protection
- Provides real connection to nature
- Clean environment
- Area has a sense of place
- Beautify Escondido
- Attract Business & Tourism
- Connection to other communities & rec. trails
- Can promote donations
- Help with obtaining grant money

- Employment
- Help community integration improved relations
- Role model, behavior, for youth & others
- Youth get skills relating to animals, agriculture, farming, nature in general
- Promote family activities
- Interacting with Animals and Nature
- Partner w/ Valley High School (schools)
- Provides opportunities for future generations
- Gateway - to complement areas as Humane Society and Daley ranch
- Connection to the past – historic features
- Out door exercise
- Free features

3. Education

- Teaching History of Rancho Origin
- Horsemanship classes
- Habitat education
- Community responsibilities'
- Spanish traditions and culture
- Early Californian traditions
- Teach kids& Veterans the Charro traditions
- Native American History
- Animal Husbandry/ Value & Importance
- Therapeutic Riding
- Accessible to all
- Riding lessons / Care
- Other farm animals
- Goats for brush control
- Equestrian skills for urban users
- On-site educational events (Hawk Talk)
- Natural Therapies – equine, canine, etc....
- Grant writing
- Donations
- School field trips
- Summer camps

4. Community Engagement

- Hiking, biking, trails
- Classes to maintain horses
- Classes about flora/fauna

Figure 72: Community Thoughts

- Charro history, where it came from, how it's maintained
- Other cultures to integrate and learn our Spanish Mexican/American culture
- Keep young kids out of trouble by exposing them to horses
- Participate in parades with horses
- Engage in making positive changes in the community
- Help the elderly by providing them with classes (horse)
- Bring together different age groups (cultures)
- Teach social skills
- Stay active by learning sport of charros
- Eagle scout (boy & girl scouts) Projects – educational/corral building
- July festival
- Rodeo Events – Flyers
- Movies in Park
- Food Truck Events
- Concerns with increase traffic from new engagement events
- Educational approach – sports/ environment / historic
- Veterinarian internships/ job shadows
- Horse/dog Therapy (disabled persons)
- Volunteer Programs
- History of Escondido family
- Engage through news papers
- Facebook presence
- Web site incorporation w/ City Escondido & others
- Historic ranch equipment
- History/citrus/archeological displays
- Clean separate picnic areas

5. Visitor Features

- Open space
- Easy access
- Signage for horses/ dogs/ education/ information
- Restrooms
- Lighting
- Walkways/hiking trails

- 4 legged animal facilities
- training classes
- scout campsite
- Therapy appropriate trails & corrals
- Landscaped walkways
- Connection to all features – pedestrian/ bicycle/ equestrian
- User rules and education display
- Horse rentals
- Riding lessons
- Corrals
- Fencing – non offensive to direct pedestrians
- Link to river walk
- Update charros arena
- Handicapped facilities
- Secure bicycle rack
- Horse trailer facilities
- Water fountains animal/ human
- Trash + recycle facilities
- Gift shops / photos
- Snack bar
- Art studio – display boxes for events
- Museum of horse history
- Location maps of the facilities
- Concerts / Dances
- School for Escaramuzas
- Maintain / preserve cultural roots
- Have the best charro arena in the state
- Amphitheater/ horse shows
- Therapeutic arena's/ disabled persons/ war veterans/ beginners
- Mounted police - Appropriate security
- Mex/American fountain
- Orchards w/avocado and oranges
- La cantina 2 de oros
- Sign statement: To manage & Preserve the natural beauty of the biological open space of SPA 5 of Escondido's northeast gateway and to establish and maintain within it. The park for active and passive recreational amenities for the community residents.

6. Other Issues

- Footprint of park should be 80+ acres
- Management of the park?
- Fund raising + Control?
- Master lease-subleases?
- The charros are representing the City of Escondido to the rest of California with the sport of Charreada as in the name of our association. The Charros De Escondido
- Legal relationship with Escondido Park Conservancy
- Therapy use Trails
- Define land use along creek
- Propose to the City Council that best use would be the entire 80 acre property, primarily to protect & preserve the area into the future.



Workshop #2

Workshop #2 focused on presenting, in bubble diagram format, three different concepts of the proposed activities and potential layout of the spaces based on the input received from the public during the first workshop.

These concepts represented various concentrations of equestrian activities, community gathering spaces and parking configurations.

The general comments from the workshop were the following:

- PARK SHOULD NOT RESEMBLE AN URBAN PARK
- PARK MUST NOT FEEL CRAMPED
- EQUESTRIAN AMENITIES ARE VERY DESIRABLE
- BRING AS MUCH PARKING INTO THE PARK AS POSSIBLE
- PROVIDE A VARIETY OF WAYS PEOPLE CAN USE THE PARK
- DO NOT FORGET CYCLISTS, HIKERS AND DOG LOVERS
- THE PARK SHOULD BRING PEOPLE OF VARYING BACKGROUNDS TOGETHER



Three Concept Plan Options (Bubble Diagrams) Presented

The following three bubble diagrams represent the plans shown to the public. The “bubble areas” represent how spaces relate to each other, rather than the shapes of the spaces.

These plans focus on how large areas could be used and how different types of circulation such as pedestrian, vehicular and equestrian move through the site.

The public responded to each of these concepts, which drove the design that was presented in the following workshop.

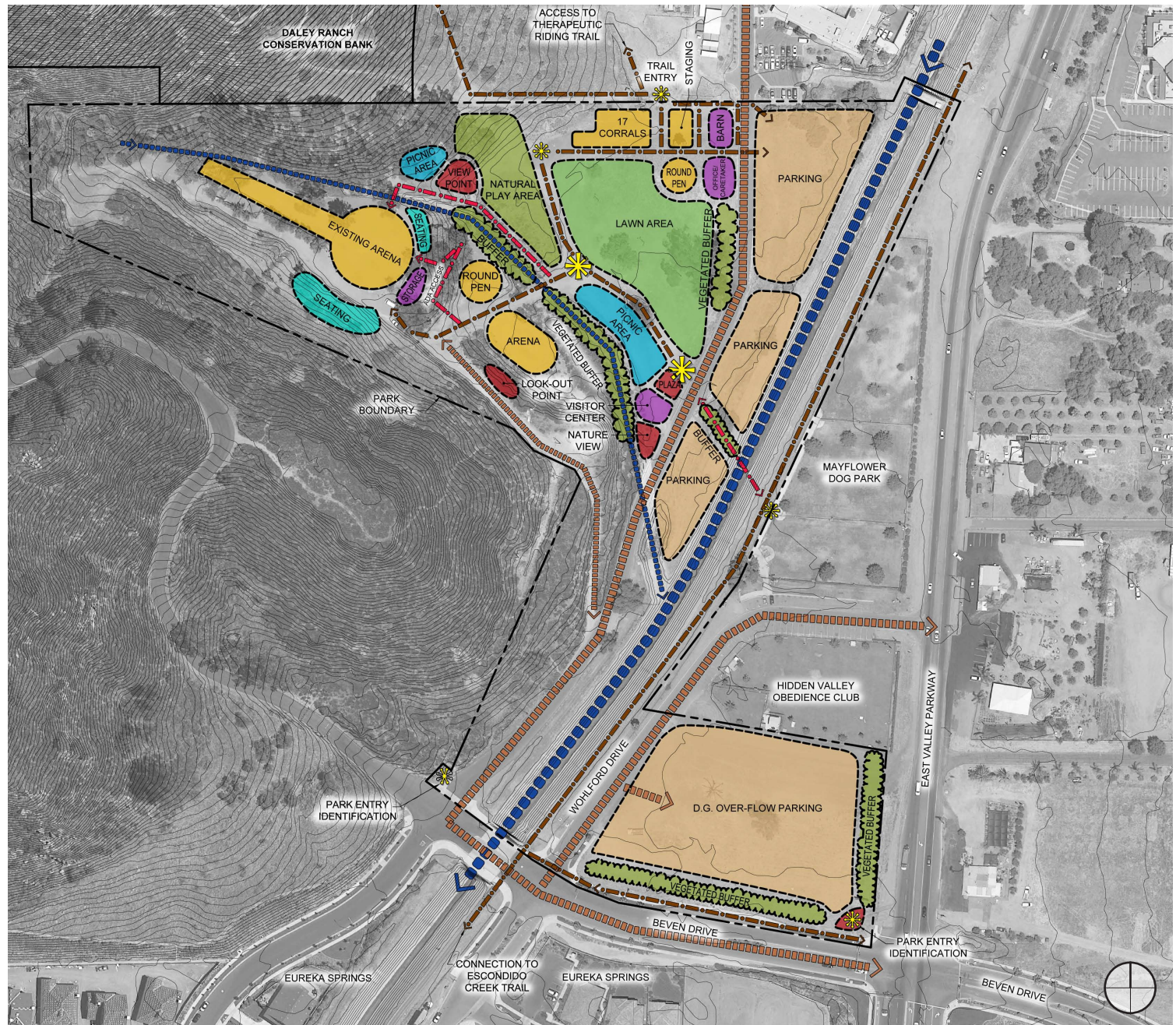


Figure 73: Bubble Diagram #1

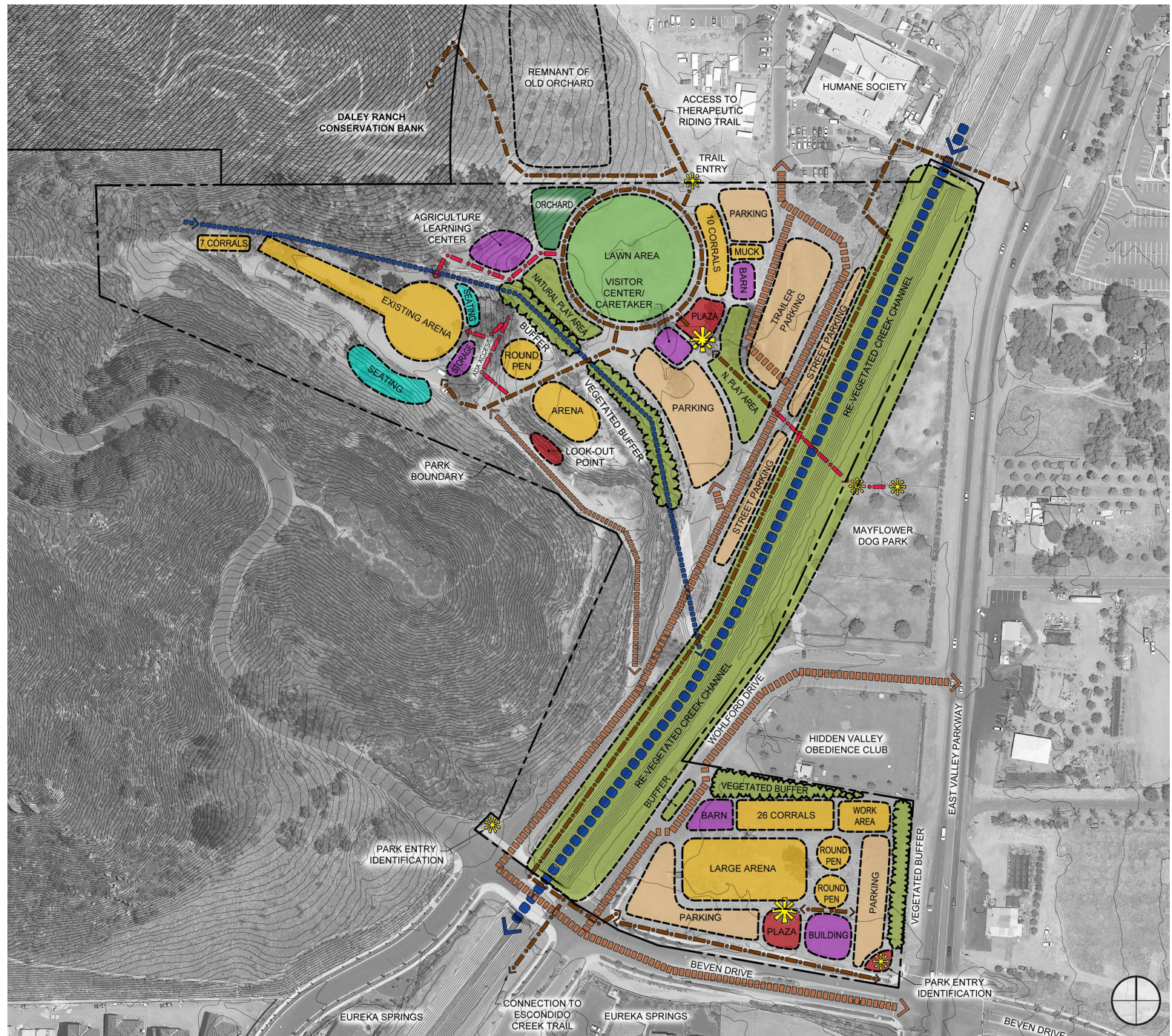


Figure 74: Bubble Diagram #2

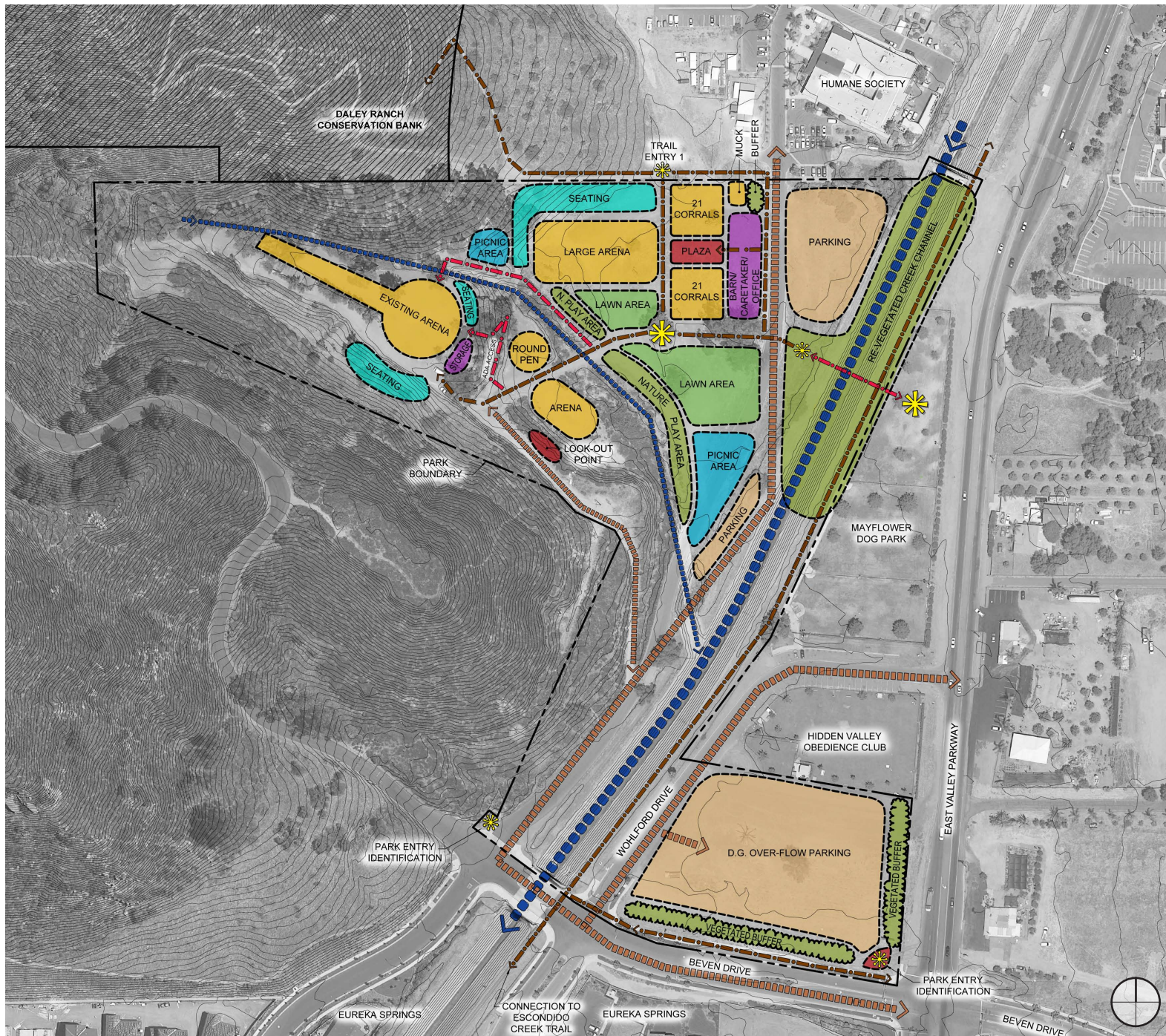


Figure 75: Bubble Diagram #3

Workshop #3

During Workshop #3 the preliminary master plan was presented to the public and the public was given the opportunity to provide input, again, regarding tweaks to the plan.

The plan was prepared based on the community input from the previous workshop including desirable elements from each of the three bubble diagram concepts and merged into one hybrid draft plan. The general responses were the following:

- “We like the master plan just as it is.”
- Move the horse trailer parking in the overflow parking to the south side of the lot.
- Add animal security fencing all around the existing arena space to protect a loose animal.
- Add cyclists’ resting spot with drinking fountain at corner of Beven Drive and East Valley Parkway.
- Add changing room/structure at existing arena for Escaramuzas.
- Add more corrals at existing arena.
- Add a vehicular turn-around space west of the existing arena
- Make a more spacious entry to Caballo Trail
- “We love the plan.”





A photograph of a park area during the golden hour. The sun is low in the sky, shining through the branches of trees and creating a lens flare effect. In the foreground, there is a wooden picnic table on a dirt path. To the left, a chain-link fence runs across the scene, with a large tree trunk in front of it. In the background, there are more trees and a hillside. The overall atmosphere is warm and serene.

Site Analysis

Site Analysis

Adjacent Properties and Land Use

Surrounding El Caballo Park are a variety of land uses and land types. To the east is the Escondido Water Treatment Plant. Built in 1976, the plant treats all water coming from several sources and then distributes the water throughout the City. It also provides water to the Vista Irrigation District (VID).

The plant sits approximately 300 feet above El Caballo Park.

North of the project site is Daley Ranch Preserve with over 3,150 acres and more than 25 miles of trails open to horses, pedestrians and cyclists.

On the Northeast side of the park is the Escondido Humane Society, which leases 10 acres from the the City of Escondido. With 57 staff members and over 800 volunteers, the Humane Society uses the park area to walk dogs until they have found homes.

East of the park is the Mayflower Dog Park (MDP) which is heavily used during the weekends and moderately used during the week. The MDP is grassed with spotted locations of trees. Just south of MDP is the Hidden Valley Obedience Club which also leases their land from the City. The club offers dog obedience classes and puts on dog shows regularly, using much of the exsting dirt lot

south of its southern border.

At the southeast corner of the park is a vacant dirt lot used for informal parking. The Mayflower Oak Tree is within this lot but is no longer living.

South of the park is the Eureka Springs housing development consisting of 170 houses on the west side of East Valley Parkway and 170 houses on the east side.








Soils Analysis

Soil type locations are general and provided by the City for this report. For soil improvements related to planting, more detailed soils analysis should be performed.

Slopes indicated are an average based on area within the park boundary and outside of the park boundary. Slopes inside the boundary lines may not reflect the percent slope indicated in the legend.

Site Soil Legend

-  Park Boundary
-  Cieneba - Fallbrook Rocky Sandy Loams, 30 to 65 percent slopes, erode
-  Friant Rocky Fine Sandy Loam, 30 to 70 percent slopes
-  Vista Coarse Sandy Loam, 9 to 15 percent slopes
-  Visalia Sandy Loam, 0 to 2 percent slopes

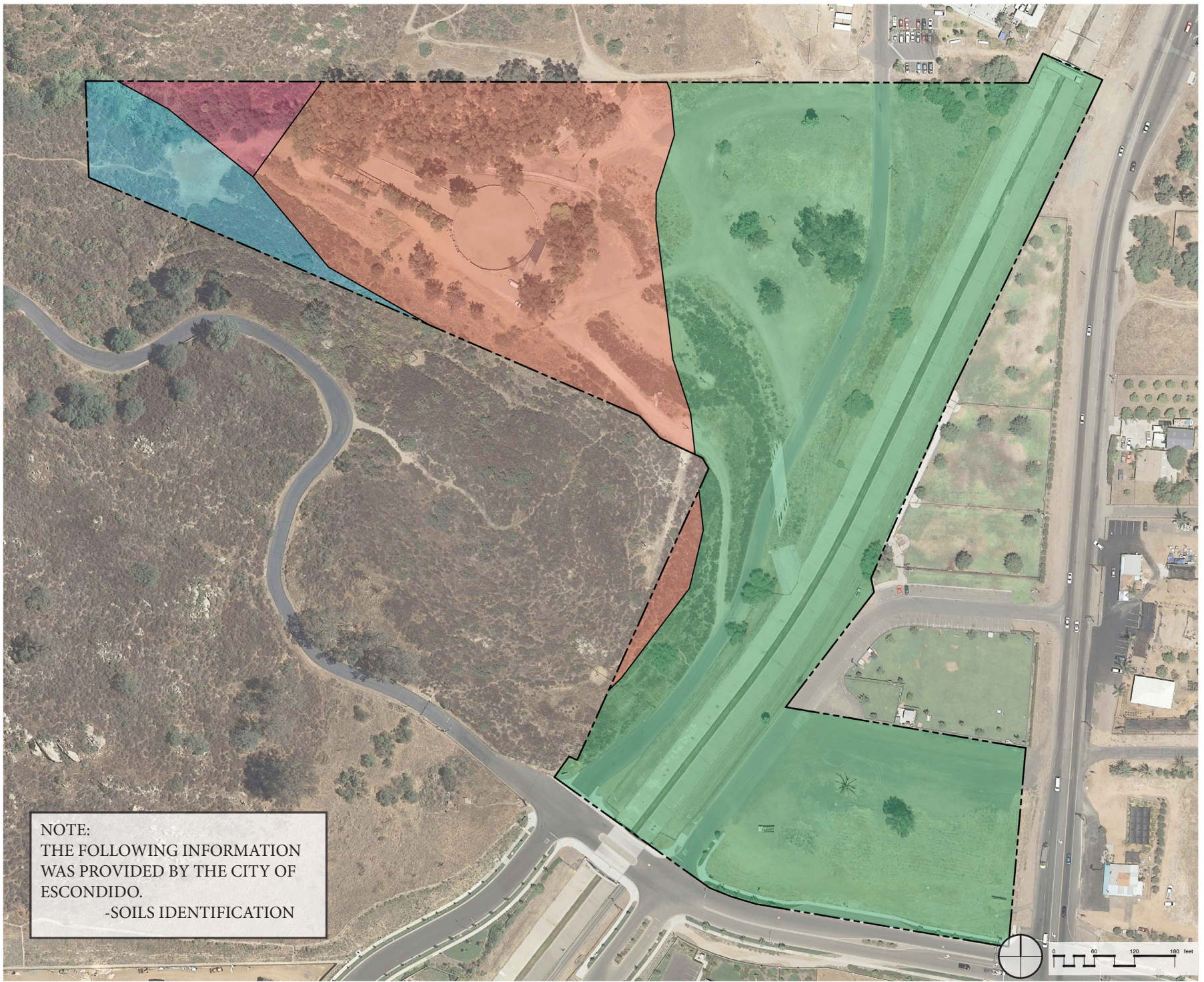


Figure 76: Soils Analysis Plan










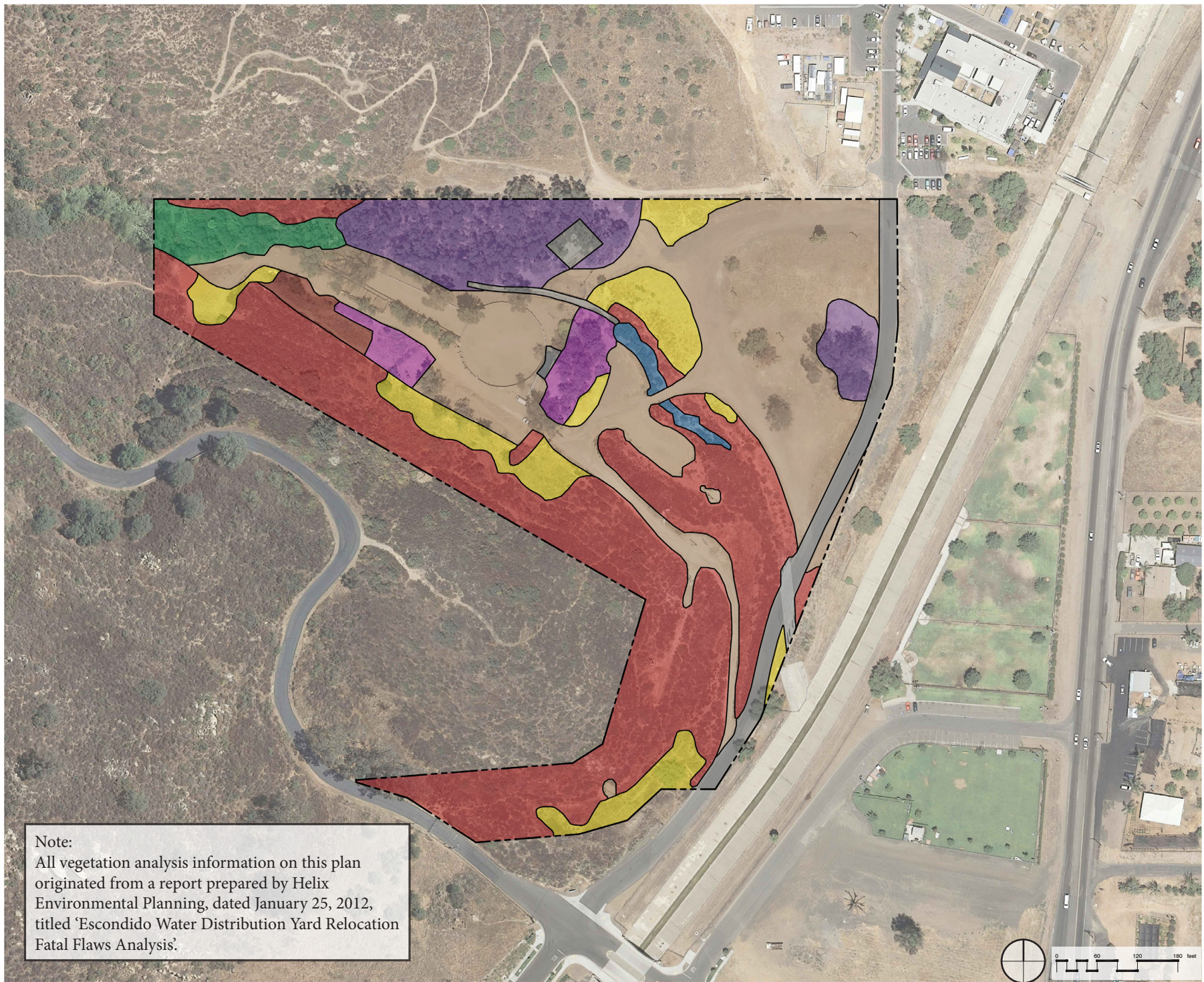
Vegetation Analysis

The Vegetation Analysis plan, on the following page, originated from a report prepared by Helix Environmental, entitled, “Escondido Water Distribution Yard Relocation Fatal Flaws Analysis”, dated January 25, 2012.

See Table 1 and Table 2 for area quantities and mitigation requirements for each habitat. These tables are also found in the Helix Environmental report.

Site Vegetation Legend

-  'Helix' Study Area
-  Southern Willow Scrub - Disturbed
-  Mule Fat Scrub
-  Diegan Coastal Sage Scrub
-  Diegan Coastal Sage Scrub - Disturbed
-  Non-Native Grassland
-  Non-Native Vegetation
-  Eucalyptus Woodland
-  Disturbed Habitat
-  Developed



Note:
 All vegetation analysis information on this plan originated from a report prepared by Helix Environmental Planning, dated January 25, 2012, titled 'Escondido Water Distribution Yard Relocation Fatal Flaws Analysis'.

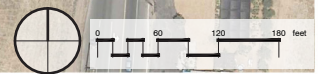


Figure 77: Vegetation Analysis Plan

EXISTING
CONDITIONS

Vegetation Analysis



Table 1 VEGETATION COMMUNITIES		
VEGETATION COMMUNITIES	HABITAT GROUP*	ACRE(S) WITHIN STUDY AREA+
SOUTHERN WILLOW SCRUB (DISTURBED)	A	0.39
MULE FAT SCRUB	A	0.12
DIEGAN COASTAL SAGE SCRUB (INCLUDING DISTURBED)	C	4.60
NON-NATIVE GRASSLAND	E	1.20
EUCALYPTUS WOODLAND	F	1.20
NON-NATIVE VEGETATION	F	0.04
DISTURBED HABITAT	F	4.50
DEVELOPED LAND	F	0.07
TOTAL		13.2

Figure 78: Vegetation Communities

*Habitat Groups, as identified in the Escondido Subarea Plan Public Review Draft (2001), are assigned based upon the rarity of the resource and are used for determining mitigation ratios.

Habitat Groups are assigned on a scale of A through F, with A being the most sensitive and F being the least sensitive.

+Upland habitats rounded to the nearest tenth acre and wetland habitats rounded to the nearest hundredth acre; thus, totals reflect rounding.

Table 2 MITIGATION STANDARDS FOR IMPACTS TO NATURAL VEGETATION AND HABITAT	
HABITAT GROUP	IMPACTED HABITAT INSIDE FPA
A. Wetland/Riparian - coastal salt marsh, alkali marsh, freshwater marsh, estuarine, salt pan/mudflats, riparian forest, riparian woodland, riparian scrub, vernal pool, disturbed wetland, flood channel, freshwater	no net loss replacement goal (Replacement ratio 1:1 to 3:1)
B. Rare Upland - beach, southern coastal bluff scrub, maritime succulent scrub, southern maritime chaparral, Engelmann Oak woodland, Coast Live Oak woodland, native grassland	3:1
C. Coastal Sage Scrub - coastal sage scrub, coastal sage/chaparral mix	2:1
D. Chaparral - chaparral, excluding southern maritime chaparral	1:1
E. Annual Grassland - annual (non-native) grassland	0.5:1
F. Other - disturbed land (including ruderal), agricultural land, eucalyptus	None

Figure 79: Mitigation Standards

Note:

All vegetation analysis information on this plan originated from a report prepared by Helix Environmental Planning, dated January 25, 2012, titled 'Escondido Water Distribution Yard Relocation Fatal Flaws Analysis'.



Cercis occidentalis



Platanus racemosa



Quercus agrifolia



Encelia californica



Salvia clevelandii



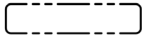










Sysirichium californicum



Existing Conditions Analysis

The analysis on the following page identifies existing conditions, site uses and opportunities.

Site Analysis Legend

	Park Boundary
	Pedestrian / Cyclist / Equestrian Path
	Secondary Vehicular Access
	Primary Vehicular Access
	Tributary Creek
	Escondido Creek Concrete Channel
	Prevailing Winds
	Vantage Point Opportunity
	Hazards - Eucalyptus Woodland
	Existing Light Pole
	Park Node

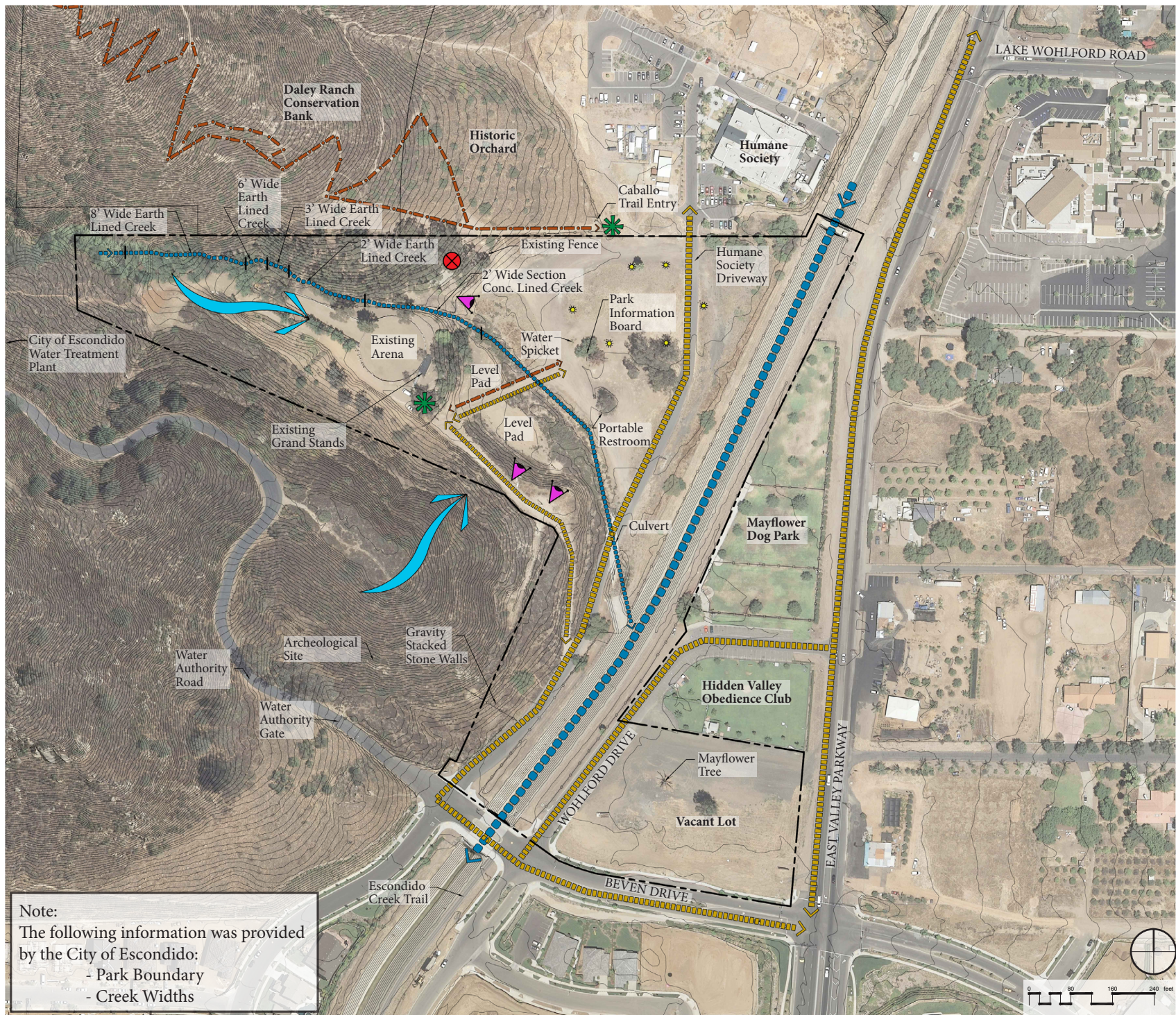


Figure 80: Existing Conditions Analysis Plan









Site Utility Inventory

The analysis on the following page identifies existing utilities and was provided by the City of Escondido.

Prior to design development, an accurate survey should be conducted to determine location of all utilities. Water lines, in particular, may not be where shown.

Utility Inventory Legend

-  Park Boundary
-  Electric Lines
-  Escondido Water
-  Vista Irrigation District Water
-  Escondido Sewer
-  Escondido Storm Drains

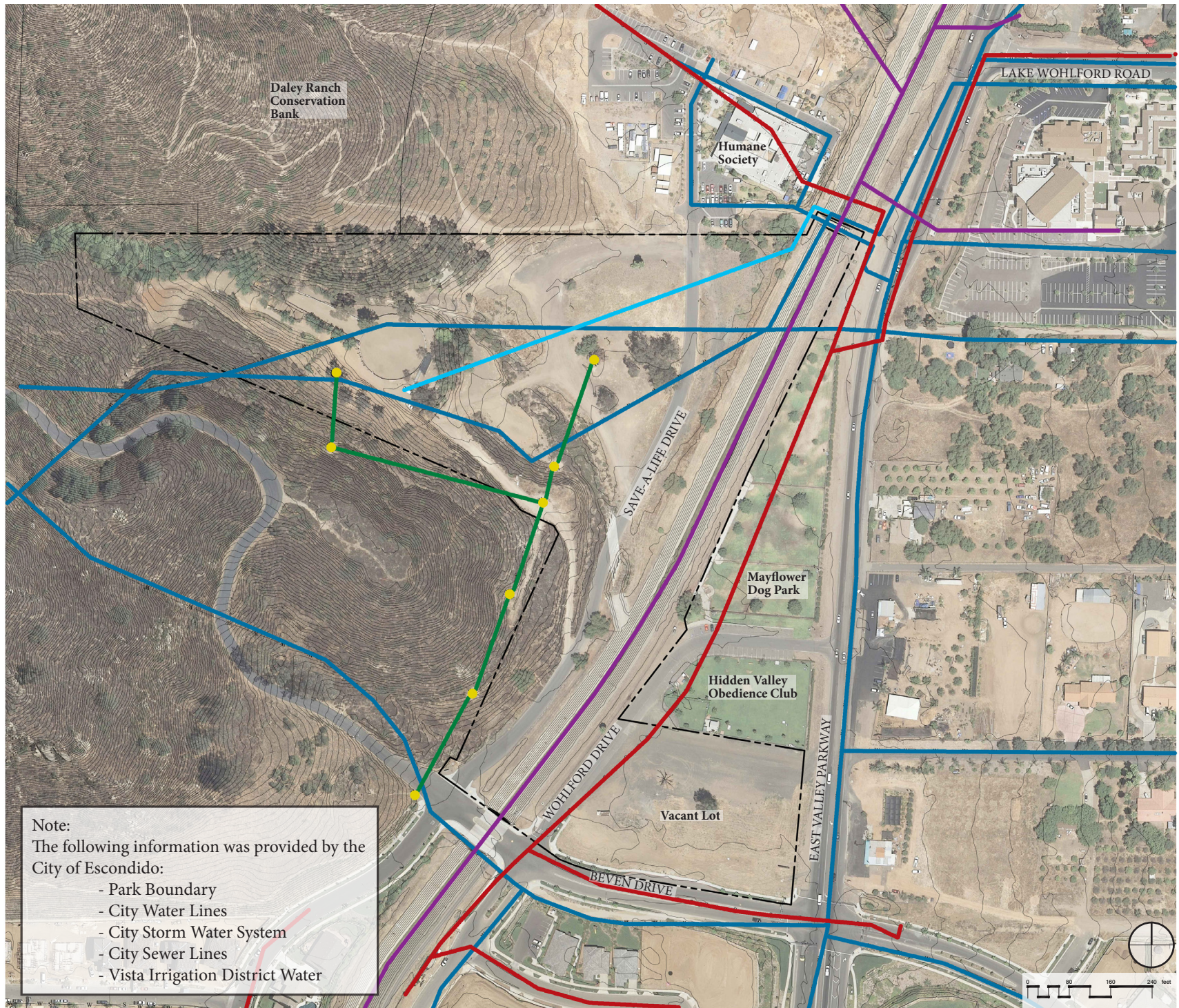


Figure 81: Site Utility Inventory

A landscape photograph featuring a rustic wooden fence in the foreground, a dry grassy field, and a hillside covered in sparse vegetation in the background under a clear blue sky. The text is overlaid on the center of the image.

Constraints Analysis

Implementation
Strategy and Phasing

Constraints Analysis

Financial Constraints

At the time of this report, no funding directly from the City is available for the development of the park. All funding must come from Grants and public donations.

Biological Constraints

For details regarding biological constraints, see report prepared by Helix Environmental, “Escondido Water Distribution Yard Relocation Fatal Flaws Analysis”, dated January 25, 2012.

The report indicates, as the Vegetation Analysis shows, that there are several vegetated habitats that influence development. The master plan does propose impacts on some of these areas and will mitigate for such impacts by planting appropriate plant species within the park and if necessary, using mitigation banks within Daley Ranch.

The existing concrete channel of Escondido Creek separates the park from Mayflower Dog Park. The master plan proposes to soften the creek by modifying the concrete edges and planting portions of the bottom and sides. An 8’ wide concrete maintenance path is proposed to allow for routine maintenance.

IMPLEMENTATION STRATEGY AND PHASING

Implementation Strategy and Phasing

The park is proposed to be built over time in eight (8) phases. Recognizing the potential challenge of raising funds for construction, the park has been phased such that the public may reach manageable funding goals and begin construction of each consecutive phase as soon as possible.

Phasing was also determined based on the development of areas that would most positively affect the community.

Costs of construction may be reduced with volunteer support of implementation of some park elements. Elements that may be constructed by volunteers may include:









- Fencing
- Arena footing material installation
- Planting
- Site furniture construction
- Low stone walls
- Shade Structures

The following identifies the phasing sequence:

Phase 1A - Existing Arena Improvements and Park Sign Monuments:

Includes improving the existing arena, new bleachers (two areas), new cow pens, new horse corrals, wash racks, trash enclosure, muck bin, changing room, ticket booth with restrooms, ADA accessible path, parking, improved driveways, fencing and associated storm water management work.

Phasing Legend

	Phase 1A
	Phase 1B
	Phase 2A
	Phase 2B
	Phase 3
	Phase 4
	Phase 5
	Phase 6

Phase 1B - Escondido Creek Trail Extension and Channel Bridge:

This phase is separate from phase 1A but may be done congruently and paid for with City funds associated with the trail extension.

Phase 2A - Main Central Public Gathering Spaces and Park Entry:

The central gathering area will bring people to the park who are not necessarily equestrians and begin to weave the community together.

This phase includes maintenance building, picnic shade structures, nature exploration areas, open lawn, paved pathways, 4 small corrals, a pedestrian bridge over the existing small tributary creek and standard vehicular parking areas.

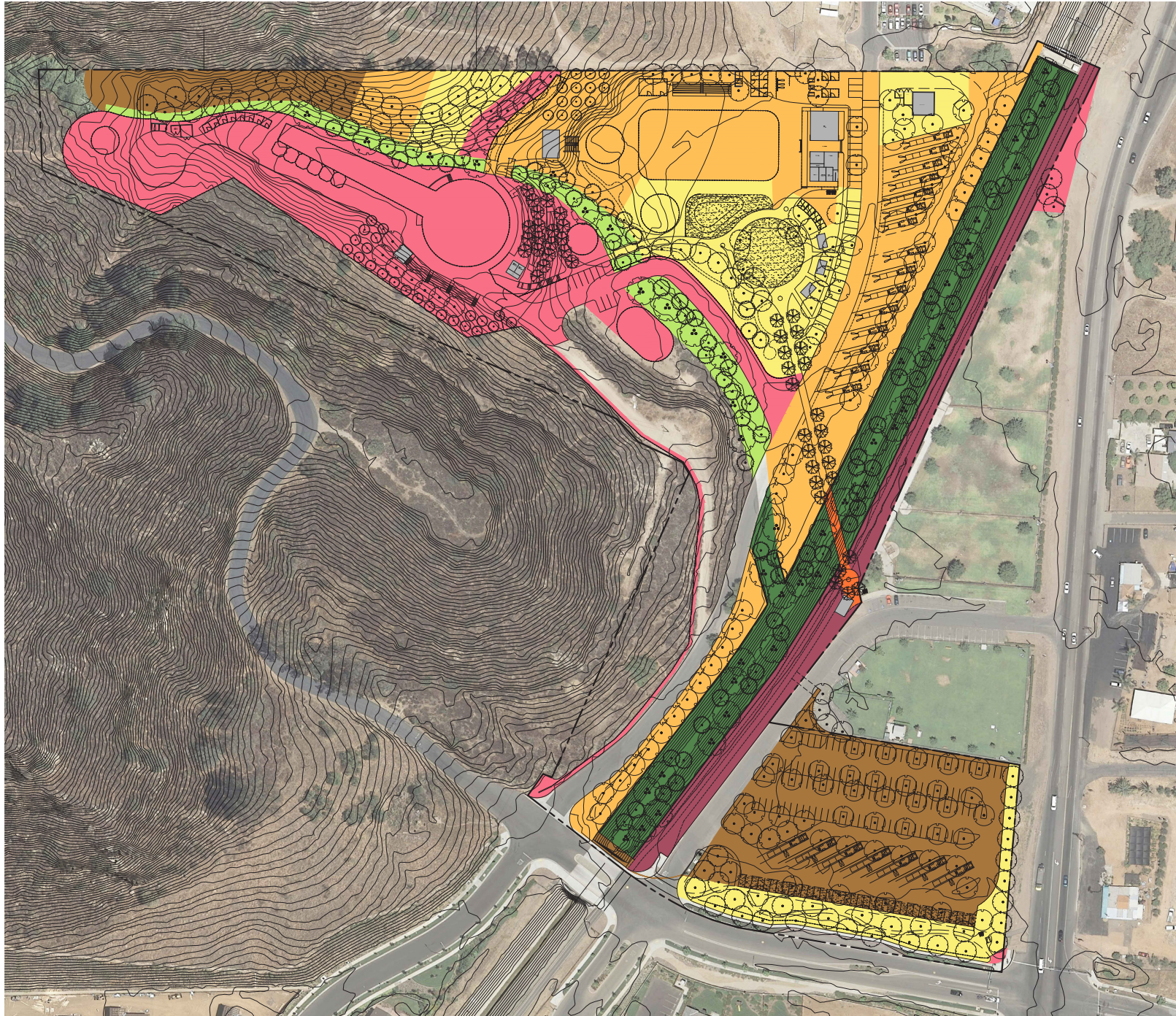


Figure 82: Phasing Plan



Implementation Strategy and Phasing - continued

Phase 2B - Escondido Creek Bridge and Restrooms:

Includes bridge and public restrooms by Dog Park and may be funded by the City.

Phase 3 - Main Lower Equestrian Park Area:

Includes new hall building, arenas, bleachers, amphitheater seating, grading, shade structure, nature exploration areas, multiple corrals, standard vehicle parking, trailer parking and fencing.

Phase 4 - Lower Overflow Parking and Escondido Trail Extension:

Includes parking, trails and resting area.

Phase 5 - Tributary Creek Improvements:

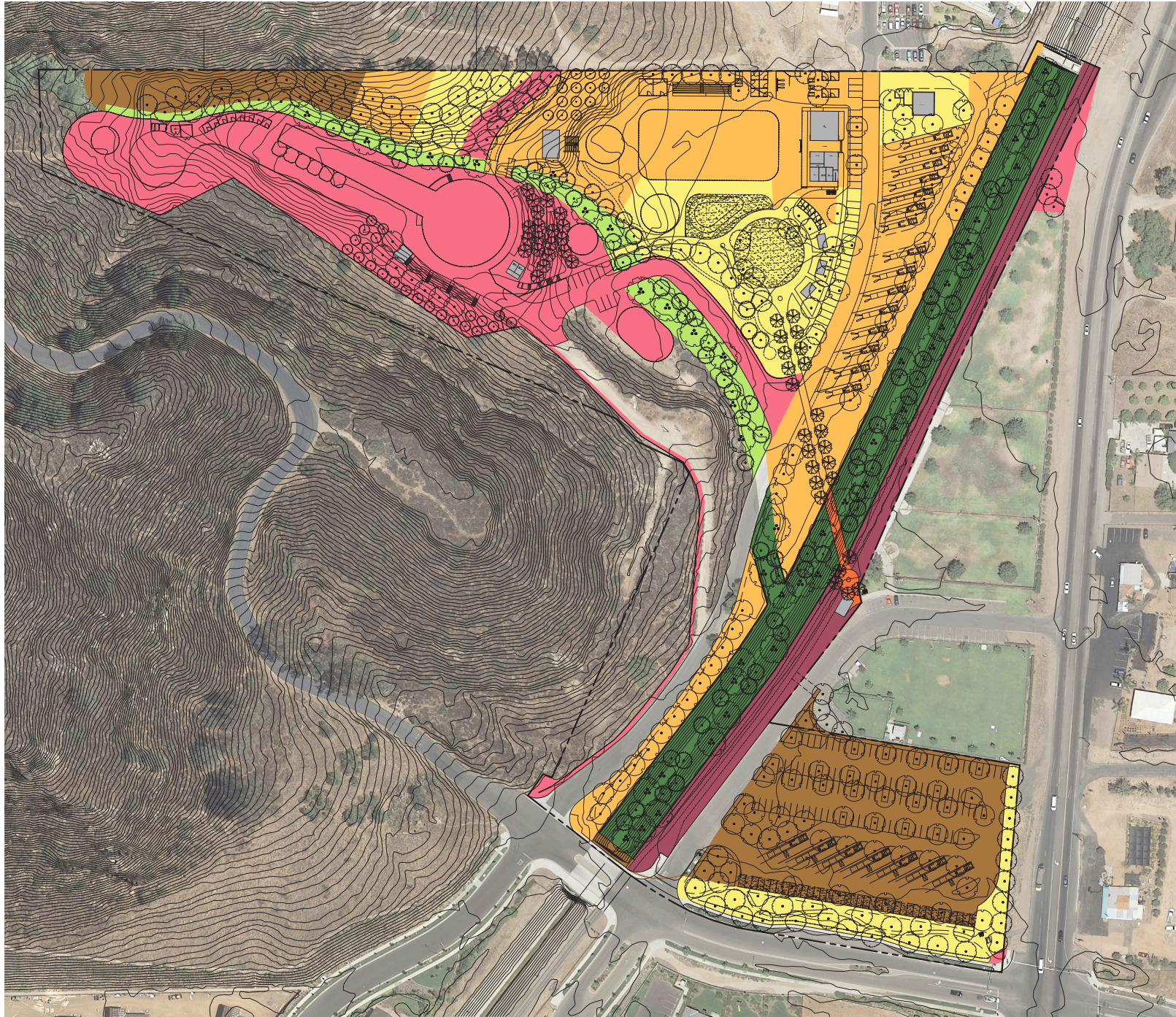
Includes minor grading to improve creek edges at lower end, revegetation of native plants and removal of existing concrete sides to be replaced with softened edges and vegetation.

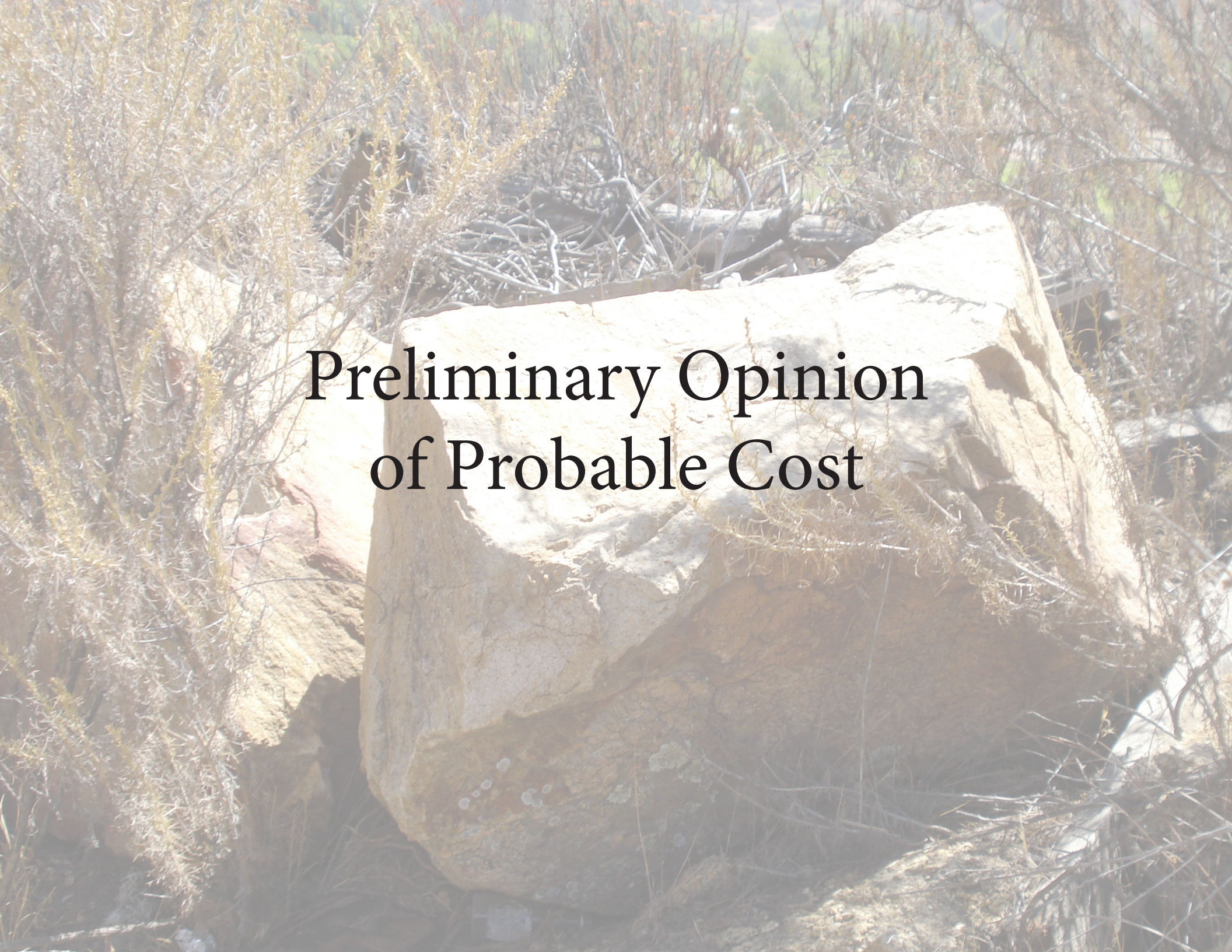
Phase 6 - Concrete Creek Channel Conversion to Soft Creek:

Includes modification of Escondido Creek concrete channel to soften the visual quality and allow greater water infiltration into the earth. More hydrological studies must be developed to confirm viability of this phase.

Phasing Legend

	Phase 1A
	Phase 1B
	Phase 2A
	Phase 2B
	Phase 3
	Phase 4
	Phase 5
	Phase 6



A large, light-colored rock formation, possibly a boulder or a small cliff face, is the central focus of the image. The rock has a textured, layered appearance with some darker spots and a small, circular mark near the bottom center. The background is filled with dry, scrubby vegetation, including thin, leafless branches and some small, yellowish flowers. The overall scene is brightly lit, suggesting a sunny day in a dry, arid environment. The text "Preliminary Opinion of Probable Cost" is overlaid in a black, serif font, centered on the rock.

Preliminary Opinion
of Probable Cost

Preliminary Opinion of Probable Cost

This preliminary opinion of probable cost is based on the information available during the development of the master plan and does not include prevailing wages. There may be costs associated with the development of the plans and construction that are not included such as:

Surveys

Additional Permit Fees

Environmental Impact Reports

Environmental Permits by other organizations outside of the City of Escondido

Phase 1A Improvements

Site Improvements	\$187,148
Buildings / Structures / Bleachers	\$324,000
Landscape	<u>\$648,976</u>
Total	\$1,160,123

10% Contingency	<u>\$116,012</u>
Phase 1A Total Construction	\$1,276,135

Soft Costs

City Staff Administration - 15%	\$191,420
Design Development and Construction Documents - 8%	\$102,091

Phase 1A Total	\$1,569,646
-----------------------	--------------------

Phase 1B Improvements

Restroom	\$86,400
Landscape	\$57,585
Public Art	<u>\$25,000</u>
Total	\$168,985

10% Contingency	<u>\$16,898</u>
Phase 2B Total Construction	\$185,883

Soft Costs

City Staff Administration - 15%	\$27,882
Design Development and Construction Documents - 8%	\$14,871

Phase 1B Total	\$228,636
-----------------------	------------------

Phase 2A Improvements

Site Improvements	\$39,518
Buildings / Structures / Bleachers	\$193,000
Landscape	\$709,848
Public Art	<u>\$75,000</u>
Total	\$1,017,366

10% Contingency	<u>\$101,737</u>
Phase 2A Total Construction	\$1,119,102

Soft Costs

City Staff Administration - 15%	\$167,865
Design Development and Construction Documents - 8%	\$89,528

Phase 2A Total	\$1,376,496
-----------------------	--------------------

Phase 2B Improvements

Main Bridge	<u>\$200,000</u>
Total	\$200,000

10% Contingency	<u>\$20,000</u>
Phase 2B Total Construction	\$220,000

Soft Costs

City Staff Administration - 15%	\$33,000
Design Development and Construction Documents - 8%	\$17,600

Phase 2B Total	\$270,600
-----------------------	------------------

OPINION OF
PROBABLE COST



Phase 3 Improvements

Site Improvements	\$307,393
Buildings / Structures / Bleachers	\$1,743,000
Landscape	<u>\$597,975</u>
Total	\$2,648,368

10% Contingency	<u>\$264,837</u>
Phase 3 Total Construction	\$2,913,205

Soft Costs

City Staff Administration - 15%	\$436,981
Design Development and Construction Documents - 8%	\$233,056

Phase 3 Total	\$3,583,242
----------------------	--------------------

Phase 4 Improvements

Site Improvements	\$533,785
Landscape	<u>\$313,258</u>
Total	\$847,043

10% Contingency	<u>\$84,704</u>
Phase 4 Total Construction	\$931,747

Soft Costs

City Staff Administration - 15%	\$139,762
Design Development and Construction Documents - 8%	\$74,540

Phase 4 Total	\$1,146,049
----------------------	--------------------

Phase 5 Improvements

Site Improvements	\$98,889
Landscape	<u>\$140,635</u>
Total	\$239,524

10% Contingency	<u>\$23,952</u>
Phase 5 Total Construction	\$263,476

Soft Costs

City Staff Administration - 15%	\$39,521
Design Development and Construction Documents - 8%	\$21,078

Phase 5 Total	\$324,076
----------------------	------------------

Phase 6 Improvements

Site Improvements	\$907,989
Landscape	<u>\$336,723</u>
Total	\$1,244,704

10% Contingency	<u>\$124,470</u>
Phase 6 Total Construction	\$1,369,174

Soft Costs

City Staff Administration - 15%	\$205,376
Design Development and Construction Documents - 8%	\$109,534

Phase 6 Total	\$1,684,084
----------------------	--------------------

Project Construction Total:	\$8,278,723
City Staff Admin. Total:	\$1,241,808
Design Development and Construction Documents:	\$662,298
Environmental Review (by City)	\$8,000
Grand Total	\$10,190,829

This page left blank

Funding Opportunities

A photograph of a red cardinal perched on a branch in a field of tall grasses. The cardinal is the central focus, perched on a thin, light-colored branch that extends from the left towards the center. The background is a dense field of tall, thin grasses, some of which are in focus and others are blurred. The overall color palette is dominated by the light blues and greys of the grasses, with the bright red of the cardinal providing a strong contrast. The text 'Funding Opportunities' is overlaid in a black, serif font, centered horizontally and slightly above the middle vertically.

Funding Opportunities

National Funding Sources

Playground Grants

<http://rulesoftheplayground.com/83-playground-fundraising-and-grant-links/>

A great resource for finding fundraising and grant resources for your next playground.

The Foundation Center

<http://www.fdncenter.org>

Excellence resource tool for grant seekers as well as grant makers.

Environmental Funders and Grants

<http://www.fundsnetsservices.com/searchresult/13/Environment-&-Conservation-Grants.html>

Environmental Funders and Grants is a database of environmental initiative funding opportunities for various states.

Kaboom!

<http://www.kaboom.org>

KaBOOM! is a national non-profit dedicated to saving play for America's children.

DonorsChoose.org

<http://www.donorschoose.org/homepage/main.html>

Donors Choose enables teachers to post resource needs and it allows donors to browse and grant requests.

eSchool News online

<http://www.eschoolnews.com/funding>

This online version of a monthly magazine contains a grants section with regularly updated grant, scholarship, professional development, and other funding opportunities for both educators and students.

GrantsAlert.com

<http://www.GrantsAlert.com>

This web site's goal is to "make life a little easier for those who devote their time to searching for education grants and identifying new funding opportunities for their organizations, schools, districts, consortia, and state education agencies."

Grants.gov

<http://grants.gov>

Allows organizations to electronically find and apply for competitive grant opportunities from all federal grant making agencies, and encompasses over 900 grant programs offered by the twenty six Federal grant-making 23 agencies. It streamlines the process of awarding over \$350 billion annually to state and local governments, academia, not-for-profits, and other organizations.

Grantsandfunding.com

<http://www.grantsandfunding.com>

Offers a complete listing of all Thompson Publishing Group publications that focus on grant and funding issues. Subscribers of the group's publications have access to a special section that provides resources such as grant deadlines, highlights of funding issues, and links to related Web sites.

Hasbro Children's Fund

<http://www.hasbro.org/default.cfm?page=grantmaking>

All funding is focused on programs which help children in need.

W. K. Kellogg Foundation

www.wkkf.org

In the United States, grants are made in the four areas of: health, food systems and rural development, youth and education, and philanthropy and volunteerism.

FUNDING OPPORTUNITIES

U.S. Department of Education (ED)
<http://www.ed.gov/fund/landing.jhtml?src=rt>
The U.S. Department of Education (ED) is providing nearly \$38 billion this year to states and school districts, primarily through formula-based grant programs, to improve elementary and secondary schools and meet the special needs of students.

The Kresge Foundation Grant (KRESGE)
<http://www.kresge.org/>
Grants are provided for the construction of facilities, renovation of facilities, purchase of major equipment, and purchase of real estate.

Home Depot Building Healthy Communities Grant Program
<http://corporate.homedepot.com/wps/portal/Grants>
Home Depot Grants support community development and improvement projects.

Aetna Foundation Targets Obesity
http://www.aetna.com/foundation/grants_reg/index.html
Aetna Foundation is providing grants to fight obesity and fund the education of communities through health literacy programs.

Build-a-Bear Workshop Foundation
<http://www.buildabear.com/aboutus/community/babwfoundation.aspx>
Build-a-Bear Workshop Foundation focuses on improving communities by helping children, families, and animals.

Lego Children's Fund
<http://www.legochildrensfund.org/>

Lego Children's Fund focus is on childhood development and funds are made available to educational facilities that are in need of early childhood development programs.

Hilton Hotel's Contribution Request Application
http://hiltonworldwide1.hilton.com/en_US/ww/fob/landing/App_Proc/index.do
Hilton Charitable giving has a focus on youth programs and k-12 education.

Land and Water Conservation Fund
<http://www.nps.gov/ncrc/programs/lwcf/index.htm>
This grant provides up to 50 percent reimbursement for outdoor recreation projects. Federal money is administered by the state in cooperation with the National Park Service.

Recreation Trails Program
<http://www.fhwa.dot.gov/environment/rectrails/>
<http://www.fhwa.dot.gov/environment/rectrails/rtpstate.htm>
The Recreation Trails Program (RTP) provides funds to the states to develop and maintain recreational trails and trail-related facilities for both non motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration.

Lowe's Toolbox for Education
<http://www.toolboxforeducation.com/>
There is a preference for funding requests that have a permanent impact such as facility enhancement (both indoor and outdoor) as well as landscaping/clean up type projects. Projects that encourage parent involvement and build stronger community spirit will be favored.

National Oceanic and Atmospheric Administration Bay Watershed Education and Training Program (BWET)
http://www.oesd.noaa.gov/funding_opps.html
NOAA B-WET provides grants in support of locally

relevant experiential learning through meaningful watershed educational experiences in the K-12 environment.

L.L. Bean Conservation and Recreation Grants

http://www.llbean.com/customerService/aboutLLBean/charitable_giving.html?nav=ln

Based on L.L.Bean's heritage and ongoing commitment to ensuring quality outdoor experiences for our customers, we've chosen conservation and outdoor recreation as the primary focus of our corporate charitable giving program. We look to local, state, regional and national organizations to help our customers enjoy the outdoors in a responsible manner.

Environmental Protection Agency Environmental Education Grants

<http://www.epa.gov/enviroed/grants.html>

The Grants Program sponsored by EPA's Environmental Education Division (EED), Office of Children's Health Protection and Environmental Education, supports environmental education projects that enhance the public's awareness, knowledge, and skills to help people make informed decisions that affect environmental quality.

General Mills Youth Nutrition and Fitness Grants

<http://www.generalmills.com/corporate/commitment/champions.aspx>

The General Mills Foundation, in partnership with the American Dietetic Association Foundation and the President's Council on Physical Fitness, developed the Champions for Healthy Kids grant program in 2002. Each year since inception, the General Mills Foundation awards 50 grants of \$10,000 each to community-based groups that develop creative ways to help youth adopt a balanced diet and physically active lifestyle.

Reader's Digest Make It Matter Grant

<http://www.rd.com/makeitmatter.do?partner=grantsalert>

Reader's Digest Foundation "Make It Matter" Grants will identify people whose stories of giving back inspire others. RDF will give \$100,000 to a deserving charity in their name and the stories may also appear on todayshow.com or rd.com.

American Academy of Dermatology's Shade Structure Grants

<http://www.aad.org/public/sun/grants.html>

To assist organizations in creating sun-safe outdoor areas, the American Academy of Dermatology (AAD) has announced the availability of grants for its Shade Structure Program. The program is open to schools and organizations that serve children and teenagers, ages 18 and younger.

National Funding Sources for Nature Programming

Youth Garden Grants

<http://www.kidsgardening.org/YGG.asp>

National Gardening Association awards Youth Garden Grants to schools and community organizations with child-centered garden programs.

The Lorrie Otto Seeds for Education Grant

<http://www.for-wild.org/seedmony.html>

The Lorrie Otto Seeds for Education Grant Program gives small monetary grants to schools, nature centers, or other non-profit educational organizations for the purpose of establishing outdoor learning centers within the United States and Canada.

American Honda Foundation

<http://corporate.honda.com/america/philanthropy.aspx?id=ahf>

The American Honda Foundation makes grants to K-12 schools, colleges, universities, trade schools, and others for programs that benefit youth and scientific education.

Operation Green Planet Free Seed Grants

http://www.america-the-beautiful.org/free_seeds/index.php

America the Beautiful Fund's Operation Green Plant program is offering grants of FREE SEEDS (Vegetable, Flower, or Herb) to encourage citizen efforts to protect and preserve America's lands and resources. These are 2006 seeds with germination rates of 90% to 95%. Grants of 100 to 2,000 seed packets are being offered on the basis of availability and relative need.

State Funding Sources

California State Parks Foundation
<http://www.calparks.org/programs/competitive-grant/competitive-grants-program.html>
Every year CSPF typically awards between \$150,000 and \$200,000 in small grants to California's state parks, governmental entities or nonprofit organizations working to protect, enhance and preserve our parks. These grants, referred to as "discretionary grants," are awarded three times a year through a competitive process. Discretionary grants primarily support four of CSPF's core areas of interest: Volunteer Efforts and Recognition, Education and Interpretation, Natural and Cultural Resource Protection, and Capacity-Building.

The Bicycle Transportation Account (BTA)
<http://www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm>

The Bicycle Transportation Account (BTA) is an annual program providing state funds for city and county projects that improve safety and convenience for bicycle commuters. In accordance with the Streets and Highways Code (SHC) Section 890-894.2 - California Bicycle Transportation Act, projects must be designed and developed to achieve the functional commuting needs and physical safety of all bicyclists. Local agencies first establish eligibility by preparing and adopting a Bicycle Transportation Plan (BTP) that complies with SHC Section 891.2. The BTP must be approved by the local agency's Regional Transportation Planning Agency.

The California Conservation Corps (CCC)
<http://www.ccc.ca.gov/Pages/default.aspx>
The California Conservation Corps (CCC) is a

public service program that occasionally provides assistance on construction projects. The CCC may be written into grant applications as a project partner. In order to utilize CCC labor, project sites must be public land or publicly-accessible. CCC labor will not perform regular maintenance, but will perform annual maintenance, such as the opening of trails in the spring.

Caltrans Transportation Planning Grant Program
<http://www.dot.ca.gov/hq/tpp/grants.html>
Caltrans Transportation Planning Grant Program, administered by Caltrans, provides two grants for bicycle and pedestrian project planning and construction. The Community-Based Transportation Planning Grant funds projects that exemplify livable community concepts, including bicycle and pedestrian improvement projects. Eligible applicants include local governments, MPOs, and RPTAs. A 20 percent local match is required and projects must demonstrate a transportation component or objective.

Cool California Funding Wizard
<http://www.coolcalifornia.org/funding-wizard#wizard>
Cool California Funding Wizard, a searchable database to locate funding across state and federal agencies for reducing the impacts of climate change and supporting sustainable communities.

Environmental Enhancement and Mitigation Funds
<http://resources.ca.gov/eem/>
Environmental Enhancement and Mitigation Funds provide grant opportunities for projects that indirectly mitigate environmental impacts of new transportation facilities. Projects should fall into one of the following three categories: highway landscaping and urban forestry, resource lands projects, or roadside recreation facilities. Funds are available for land acquisition and construction. The local Caltrans District must support the project.

Habitat Conservation Fund
http://www.parks.ca.gov/?page_id=21361
The HCF program allocates approximately \$2 million each

year for grants to cities, counties, and districts to provide for nature interpretation and other non-capital outlay programs which bring urban residents into park and wildlife areas, to protect various plant and animal species or to acquire or develop wildlife corridors and trails.

Land and Water Conservation Fund

http://www.parks.ca.gov/pages/1008/files/lwcf%20application%20guide_%20final%20draft%2010.10.2013.pdf

Land and Water Conservation Fund (LWCF) is a federally funded program, run through the National Park Service that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The fund is administered by the California Department of Parks and Recreation. The fund has been reauthorized until 2015. Cities, counties, and districts authorized to acquire, develop, operate, and maintain park and recreation facilities are eligible to apply. Applicants must fund the entire project, and will be reimbursed for 50 percent of costs. Property acquired or developed under the program must be retained in perpetuity for public recreational use.

State Highway Operations & Protection Program (SHOPP)

<http://www.dot.ca.gov/hq/transprog/shopp.htm>

State Highway Operations & Protection Program (SHOPP) is a Caltrans funding source with the purpose of maintaining and preserving the investment in the State Highway System and supporting infrastructure. Projects typically fall into the following categories: collision reduction, major damage restoration, bridge preservation, roadway preservation, roadside preservation, mobility enhancement, and preservation of other transportation facilities related to the state highway system. In the past, SHOPP funds have been used to construct bicycle and pedestrian projects, including curb ramps, overcrossings, bike paths, sidewalks, and signal upgrades to meet ADA requirements. Jurisdictions work with Caltrans' districts to have projects placed on the SHOPP list.

Statewide Park Program

http://www.parks.ca.gov/?page_id=26025

The \$368 million Statewide Park Program awarded grants for the creation of new parks and recreation facilities in critically underserved communities throughout California.

Wildlife Conservation Board Public Access Program

<https://www.wcb.ca.gov/>

Wildlife Conservation Board Public Access Program provides grants to public agencies and non-profit groups and organizations in California. The focus of the Board's grant funding program is the acquisition of lands or improvements that preserve wildlife habitat or provide recreational access for hunting, fishing, or other wildlife-oriented activities. Projects eligible for funding include interpretive trails, river access, and trailhead parking areas. The State of California must have a proprietary interest in the project. Local agencies are generally responsible for the planning and engineering phases of each project.

Local Funding Sources

Regional Surface Transportation Program (RSTP)

<http://www.mtc.ca.gov/funding/STPCMAQ/>

Regional Surface Transportation Program (RSTP) is a block grant program that provides funding for bicycle and pedestrian projects, among many other transportation projects. Under the RSTP, Metropolitan planning organizations prioritize and approve projects that will receive RSTP funds. Metropolitan planning organizations can transfer funding from other federal transportation sources to the RSTP program in order to gain more flexibility in the way the monies are allocated. In California, 76 percent of RSTP funds are allocated to urban areas with populations of at least 200,000. The remaining funds are available statewide.

SANDAG

<http://www.sandag.org/index.asp?projectid=411&fuseaction=projects.detail>

SANDAG Board of Directors allocates funds under the Transportation Development Act (TDA) and TransNet local sales tax program to support bicycle and pedestrian transportation projects in the San Diego region through a competitive process on an annual basis with input from the SANDAG Bicycle-Pedestrian Working Group using criteria that support regional transportation goals consistent with the Regional Comprehensive Plan and Regional Transportation Plan.



Permitting and Regulatory Requirements

Permitting and Regulatory Requirements

The following is a summary of potential permits and regulatory requirements that may need to be obtained or followed based on the proposed master plan and current requirements.

The master plan proposes several buildings that will need building permits and associated landscape plans supporting the permit. Grading permits will also be required with associated Hydromodification plans.

Work around and in the small tributary creek running through the park and the proposed modifications to Escondido Creek would likely require notification and possible permitting with the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA).

The activities would likely qualify under Nationwide Permit 27 (Aquatic Habitat, Restoration, Establishment, and Enhancement Activities). An updated jurisdictional delineation (a Preliminary Jurisdictional Determination could suffice) and Pre-Construction Notification (PCN) would be required as part of the notification and permitting process with the USACE to quantify and qualify existing waters of the U.S. Maintenance provisions would have to be negotiated with the USACE during the permit process in order to retain maintenance approval over the restored area. As with any CWA Section

404 permit issued by the USACE, a CWA Section 401 Water Quality Certification would be required from the Regional Water Quality Control Board (RWQCB).

The California Department of Fish and Game (CDFW) could interpret the targeted areas as jurisdictional (unvegetated) streambed and require a standard 5-year Streambed Alteration Agreement for the activities pursuant to Sections 1600 et seq. of the California Fish and Game Code. Maintenance provisions would have to be negotiated into the standard Agreement.

Prior to proceeding with permitting, it is suggested to obtain a copy of the City's existing permits from the USACE, RWQCB, and/or CDFW covering the maintenance activities.

As part of the permitting process and/or prior to construction, the agencies (particularly, CDFW) may require preparation and submittal of a restoration plan or habitat mitigation monitoring plan (HMMP) with specific performance criteria and 3-5 maintenance, monitoring, and reporting for the restoration effort. The agencies could require a restrictive covenant or conservation easement (worst case) be placed over the unnamed tributary (if no long-term maintenance is proposed).

The project may qualify as an Initial Study/Mitigated Negative Declaration (IS/MND).

A concise biological technical study may also be required to support the City's CEQA

findings and provide information necessary for permitting. Most, if not all, of the Master Plan project site is restricted to non-native upland habitat types (i.e., disturbed habitat, non-native grassland, eucalyptus woodland, ornamental), with the exception of the two streams. However, portions of the property that support the Master Plan project site are characterized by native Diegan coastal sage scrub (DCSS). DCSS is a upland sensitive natural community that requires mitigation for direct impacts, typically at a 2:1 ratio (i.e., two acres of mitigation for every one acre of impact). This could easily be resolved by mitigating impacts to DCSS at Daley Ranch.

DCSS is known to support sensitive plant and animal species, so biological surveys (e.g., spring rare plant surveys, focused animal species surveys) may be required to confirm their presence/absence from impact areas. The federally listed threatened coastal California gnatcatcher (*Polioptila californica californica*) is known to occur in the local area. The U.S. Fish and Wildlife Service (USFWS) has designated (revised) critical habitat for this species within the DCSS that occurs in the local area.

A photograph of a wooden boardwalk with several slices of watermelon and cantaloupe arranged on it. The watermelon slices are triangular and have a bright red interior with a green rind. The cantaloupe slices are also triangular and have a yellow-orange interior with a green rind. The boardwalk is made of dark, weathered wooden planks. The background is a sandy, outdoor setting with some dry leaves and twigs scattered on the ground.

Future Development Process

(Watermelons shared during Workshop #1)

Future Development Process

This Master Plan is just the first phase of the development of El Caballo Park. It is intended to provide a framework for detailed design and ultimately project construction. It is “step one” in the overall park development process.

Funding for phase one, per the Master Plan Phasing Plan, must be obtained for construction as well as Design Development, Construction Drawing and permit fees.

All necessary environmental reports must be completed as required by the City and appropriate governmental agencies as identified earlier in this report.

It should be noted that the Phasing Plan is a guide but it should be flexible to accommodate the needs and attainable funding at the time.

Associated Off-Site Future Development

The El Caballo Park Master Plan has sparked potential future improvements off-site. To compliment the activities the park brings to the community and the existing trails within Daley Ranch, the City will study locations within Daley Ranch and City owned land west and south of the park to incorporate a new trail providing a secondary access to the park.

Through the community outreach process, a potential new access road to the Escondido Humane Society was proposed at the intersection of Lake Wohlford Road and East Valley Parkway. If this road is implemented, a gate at the boundary line between the Humane Society and the Park is to be installed to prevent park visitor traffic from driving through the Humane Society parking lot.



Appendix

Appendix

Drainage and Water Quality Concept Report

I. Regulatory Requirements

The following discussion with respect to the stormwater runoff regulatory requirements is Excel Engineering's preliminary opinion of the drainage and storm water quality requirements of the site.

A. Priority Project Determination

As per the requirements imposed on all projects in the City of Escondido, this project will be made to be compliant with the current San Diego County MS-4 Permit, of which the City of Escondido is a co-permittee. San Diego County and its co-permittees are now working under the RWQCB Order No. R9-2009-0009-DWQ, which establishes the working criteria for the countywide model SUSMP and HMP requirements. The newest Order No. R9-2013-0001, adopted in 2013 has several steps that need to be completed before projects will be required to implement those new guidelines. The County wide model SUSMP can be found on the Project Clean Water Web Site hosted by the RWQCB.

In Chapter 1 of the SUSMP, procedures are outlined to determine if the project is a priority development project. The most clearly applicable reason that the project is considered a Priority Development Project is the fact that the project will be disturbing greater than 1

acre of land surface, and the fact that the project is expected to generate greater than background levels of pollutants, primarily from animal waste. In table 1-1 of the SUSMP, the project may be considered to fit into category B (Commercial) since it is a recreational facility, E (Restaurants) since the project includes a concession stand that likely will sell refreshments, H (Parking Lots) since the project is proposing on-site parking, and I (streets roads and highways) since the fire department access road is paved.

B. Hydromodification Flow Controls (HMP) Requirements

Priority Development Projects must be designed so that runoff rates and durations are controlled to maintain or reduce pre-project downstream erosion conditions and protect stream habitat. To determine if a proposed project must implement hydromodification controls, the HMP Decision Matrix (SUSMP Figure 1-1) in the SUSMP was referenced. While the project does propose a few small impervious areas, the area of imperviousness, as compared to the overall site area, is insignificant. The few small areas of impervious surfaces are more than compensated for by the increase in soil retention of the equestrian arena areas. Based on this reasoning the project is considered HMP exempt and will not be required to implement flow control measures.

II. Required Stormwater Treatment Features

A. Requirements for All Development Projects

All development projects must include control measures to reduce the discharge of stormwater pollutants to the maximum extent practicable. This project will implement Best Management Practices (BMP) for source control for trash and litter. It will also incorporate Low Impact Development (LID) methods to conserve natural features, set back development from natural water bodies, minimize imperviousness, maximize infiltration, and retain and slow runoff.

B. Priority Development Requirements

While all Development Projects are required to incorporate general BMP and LID design elements, priority Development Projects are required to select specific BMP and LID elements targeting specific pollutants that are expected to be generated from the site. Each priority project is expected to produce a general range of pollutants based on the project category(s). If any of the downstream receiving waters is impaired with a pollutant that the site is expected to produce, then that pollutant is considered a Primary Pollutant of Concern. If the pollutant is not a Primary Pollutant of Concern, then it is considered a Secondary Pollutant of Concern.

C. Expected Pollutants from the Project

Each category of priority project is expected to produce several general categories of pollutants. The expected pollutant produced from the site

include all the pollutants from each category. From SUSMP table 2-1, the expected pollutants of concern for Commercial, Restaurants, Parking Lots and Streets are:

1. Sediment
2. Nutrients
3. Heavy Metals
4. Organic Compounds
5. Trash and Debris
6. Oxygen Demanding Substances
7. Oil and Grease
8. Bacteria and Viruses
9. Pesticides

D. Downstream Impairments

The project is located in the Escondido Hydrologic Sub Area of the Escondido Creek Hydrologic Area of the CARLSBAD Hydrologic Unit (904.62). The project discharges to the Escondido Creek which discharges to the San Elijo Lagoon which discharges to the Pacific Ocean.

1) Escondido Creek

Escondido Creek is listed on the 303d list with the following impairments:

1. DDT (Dichlorodiphenyltrichloroethane) which affects approximately 26 miles of the water body. DDT (Dichlorodiphenyltrichloroethane) is in the Pesticides pollutant category.
2. Enterococcus which affects approximately 26 miles of the water body. Enterococcus is in the Pathogens pollutant category.
3. Fecal Coliform which affects approximately 26 miles of the water body. Fecal Coliform is in the Pathogens pollutant category.
4. Manganese which affects approximately

26 miles of the water body. Manganese is in the Metals/Metalloids pollutant category.

5. Phosphate which affects approximately 26 miles of the water body. Phosphate is in the Nutrients pollutant category.
6. Selenium which affects approximately 26 miles of the water body. Selenium is in the Metals/Metalloids pollutant category.
7. Sulfates which affects approximately 26 miles of the water body. Sulfates is in the Other Inorganics pollutant category.
8. Total Dissolved Solids which affects approximately 26 miles of the water body. Total Dissolved Solids is in the Salinity pollutant category.
9. Total Nitrogen as N which affects approximately 26 miles of the water body. Total Nitrogen as N is in the Nutrients pollutant category.
10. Toxicity which affects approximately 26 miles of the water body. Toxicity is in the Toxicity pollutant category.

2) San Elijo Lagoon

San Elijo Lagoon is listed on the 303d list with the following impairments:

1. Eutrophic which affects approximately 565 acres of the water body. Eutrophic is in the Nutrients pollutant category.
2. Indicator Bacteria which affects approximately 565 acres of the water body. Indicator Bacteria is in the Pathogens pollutant category.
3. Sedimentation/Siltation which affects approximately 565 acres of the water body. Sedimentation/Siltation is in the Sediment pollutant category.

3) The Pacific Ocean in this discharge area is not a 303d listed water body.

E. Descriptions of Pollutant Categories

a) Metals/Metalloids

The transportation system is a primary source of metals in stormwater runoff to urban streams and groundwater. Cadmium, copper, cobalt, iron, nickel, lead and zinc are deposited into the environment by vehicle exhaust, brake linings, and tire and engine wear. They accumulate on roads, and are washed into storm drains by rainfall runoff. Pollutant concentrations in roadway runoff are positively correlated with traffic volume. All cars, even the cleanest vehicles, shed small amounts of metals, fluids, and other pollutants.

b) Nutrients

Nutrients including nitrogen and phosphorous are the major plant nutrients used for fertilizing landscapes, and are often found in stormwater. Included in this category are pollutants such as: Algae, the various forms of Ammonia, Biochemical oxygen demand (BOD), Chlorophyll-a, Eutrophic conditions, Low Dissolved Oxygen, Nitrate\Nitrite\Nitrogen, Organic Enrichment\Low Dissolved Oxygen, Phosphate, Phosphorus and Total Nitrogen as N. These nutrients can result in excessive or accelerated growth of vegetation, such as algae, resulting in impaired use of water in lakes and other sources of water supply. For example, nutrients have led to a loss of water clarity in Lake Tahoe. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish.

Excessive nutrient levels in waterways stimulate the growth of plants and algae, which can reduce dissolved oxygen levels and harm the entire aquatic ecosystem. The primary nutrients are phosphorous and nitrogen. Phosphates and nitrates enter stormwater from fertilizers applied to lawns and golf courses, decomposition of natural rock and soils, air deposition from vehicle exhaust, detergents used to wash cars on the street, and pet waste.

c) Inorganics

Toxic inorganics are human-made or naturally occurring chemicals that can harm the health of aquatic life and people if exposed at high enough levels. These pollutants include a wide range of chemicals from a wide array of sources. The most common toxic inorganic water pollutants are reported separately in their own categories, for example metals. Around 360 waters nationwide have been reported under the category of toxic inorganics. The impairments include antimony (used as a fire retardant in textiles and plastics), fluoride (added to drinking water to promote dental health), ozone (used to treat water to kill bacteria and viruses), cyanide (used in metal treatment), and perchlorate (used in rocket fuel). Human activities are usually responsible for introducing toxic concentrations of inorganic chemicals to waterways, including direct discharges from industrial or wastewater treatment plants, rain runoff and leakage from agricultural fields, mining operations, landfills, and rocket fuel manufacturing sites, and air deposition from car exhaust and coal-fired power plants.

Inorganics in storm water can be reduced by

properly containing chemicals and never dumping directly into waterways or storm sewers.

d) Pathogens

A large variety of microbes are found in stormwater, however, the disease causing microbes (pathogens) are the primary concern. Pathogens can enter stormwater through combined sanitary/stormwater sewer overflows and the improper disposal of pet waste. Soil contaminated with solid waste is also a source of pathogens in stormwater. Enterococcus, E. coli and Fecal Coliform are bacteria that are used in water quality analysis as indicator species. These bacteria originate in the intestinal tracts of humans and animals. They themselves are harmless but their presence indicates possible fecal material contamination and the potential presence of other harmful microbes. Two common pathogens found in stormwater are Giardia and Cryptosporidium. These parasites are the cause of two of the most common waterborne diseases in the U.S. Both can persist in the environment for months and are highly resistant to disinfection. Certain species of fish and wildlife are unaffected by the microbes commonly found in stormwater while other species experience symptoms similar to humans, such as gastrointestinal upset. Horse manure storage and removal is addressed in the master plan with controlled storage, regular removal and proper storm water treatment through BMP practices.

e) Pesticides

Pesticides (including herbicides, fungicides, rodenticides, and insecticides) have been repeatedly detected in stormwater at toxic levels,

even when pesticides have been applied in accordance with label instructions. As pesticide use has increased, so too have concerns about the adverse effects of pesticides on the environment and human health. Accumulation of these compounds in simple aquatic organisms, such as plankton, provides an avenue for biomagnification through the food web, potentially resulting in elevated levels of toxins in organisms that feed on them, such as fish and birds. Many rivers are contaminated with DDT and dieldrin, pesticides that were banned in the seventies. These chemicals are highly persistent in the environment, and they continue to enter waterways via the erosion of soils. In addition to the impacts of these legacy chemicals, a significant amount of other pesticides are currently applied in urban areas.

f) Salinity

Salinity in water is a measure of the dissolved quantities of solids and minerals in the water. Analytical measures of salinity include Total Dissolved Solids (TDS), Chloride Content, Sodium Content, Electrical Conductivity, and Specific Conductance. Certain compounds are found in abundance in the environment and easily enter storm water runoff. Less pervious soils tend to accumulate those salts, while more pervious soils allow the salts to be carried deeper into the ground. For the rainfall that becomes runoff, the accumulated salts go into solution and are carried into the downstream water bodies. Depending on the amount of irrigation, the time between runoff producing rainfall events, and the quantities of rainfall runoff, the chloride concentration on the exposed soil can concentrate, and enter the stormwater runoff at high levels that can impact

downstream waterbodies and can exceed health levels for the aquatic environment.

g) Sediment

Sediment is material eroded from rocks or soil and then transported and deposited in water. Sediment in the proper quantity is a natural part of the banks and bottom of lakes, streams and other waterways, but it becomes a problem when too much fine sediment enters the water or when it is contaminated by other pollutants. Excess fine sediment is one of the most common forms of pollution, reported in over 6,000 water bodies from all parts of the US. These waters most often suffer from excessive suspended sediment in the water or too much deposited fine sediment on the bottom. Too little sediment sometimes causes streams to scour their channels and destroy fish habitat. Sediment problems happen when rain washes silt and other soil particles off of construction sites, into waterbodies. The sediment may clog and damage fish gills or suffocate eggs and aquatic insects on the bottom. Suspended silt may interfere with recreational activities like boating, fishing or swimming and degrade the beauty of waterways by reducing water clarity. Although sediment itself is generally harmless to human health or safety, indirect environmental or health risks can happen when nitrogen and phosphorus pollution and a variety of toxic chemicals attach to sediment particles on land and ride the particles into surface waters.

h) Toxicity

Toxicity describes the resultant state of a waterbody that has decreased ability or no ability to support a balanced aquatic ecological system. Unlike some of the other categories, Toxicity describes the combined or synergetic effect of a combination of pollutants that individually may not impair a water body, but in the presence of other pollutants that may also be present at lower levels, combine to create an unhealthy or inhospitable environment for aquatic life. The condition may be isolated to the sediment, the water or the specific

toxicity may not be known.

F. Pollutants of Concern

Comparing the list of potential pollutants to the list of downstream impairments, the following list shall be considered the primary pollutants of concern:

1. Sediment
2. Nutrients
3. Metals
4. Pathogens
5. Pesticides

The remainder of the expected pollutants shall be considered Secondary pollutants of concern.

The stormwater treatment features target the primary pollutants of concern by selecting features that have at least a medium effectiveness with respect to removing pollutants but preferably a high level of effectiveness. The secondary pollutants of concern are also treated in the same features as the primary pollutants of concern although they may be treated with a lower effectiveness.

G. LID Selection

In the SUSMP table 2-2, each of the expected development project pollutants is grouped as to whether the pollutant tends to be coarse sediment/trash, fine particles, or dissolved during and after treatment. SUSMP table 2-3 lists the relative effectiveness of a variety of treatment features with respect to whether the pollutant group is coarse, fine, or dissolved. The primary pollutants of concern listed above are associated with all three categories (course, fine and dissolved) of pollutants. Sediment is both course and fine

particles, and nutrients are both fine particles and dissolved. All other pollutants are associated with fine particles.

From table SUSMP 2-2, the treatment facilities listed are: Bioretention Facilities (LID), Settling Basins (Dry Ponds), Wet Ponds and Constructed Wetlands, Infiltration Facilities or Practices (LID), Media Filters, Higher-rate biofilters, Higher-rate media filters, Trash Racks & Hydrodynamic Devices, and Vegetated Swales. Of the listed treatment features, all of them have a high effectiveness associated with course particles so any of them are acceptable with respect to the pollutants of concern. For pollutants associated with fine particles, all of the treatment features are medium or above except for trash racks and hydrodynamic separators, so any of these (except trash racks/ hydrodynamic separators) could be chosen. Finally for pollutants that tend to be dissolved, there is one feature (Infiltration) that has a high effectiveness, and two features (Bioretention, and Wet Ponds/Constructed Wetlands) that have a medium effectiveness. Wet Ponds/Constructed Wetlands are not a feasible treatment option for this site due to the availability of water to maintain the ponds.

Based on the above discussion, the first choice of treatment facility will be infiltration facilities, followed by bio-retention facilities. Based on the Hydrologic Soil Group B of the project soils (discussed later), either of these methods of treatment are feasible for this site.

III. Existing Site Conditions

A. Offsite Run-on to the Project

The project is located at the base of a valley area and currently accepts drainage from the north,

west and south and discharges that drainage to the east. The site and the surrounding area is natural undeveloped land with the exception of the Humane Society facility to the north. The offsite flows include natural ground run-off and the overflow from Lake Dixon (located easterly from the site).

B. Soil Type

The project is situated near the Escondido creek, Dixon Lake and Lake Wolford which are discernable on the County Soil Hydrologic Groups map. Based on these reference points the project appears to be within the Group B zone. Group B soils have a moderate infiltration rate when thoroughly wetted; chiefly soils that are moderately deep to deep, moderately well drained to well drained, and moderately coarse textured. Rate of water transmission is moderate. This soil type is expected to be very effective with respect to its ability to infiltrate storm water. Infiltration treatment facilities are some of the most effective storm water treatment methods.

IV. Drainage Design

The drainage design for this project will treat the runoff originating from the project site as close to the points of generation as possible, while transmitting the offsite flows through and/or around the project untreated and un-detained.

A. Pass-Through/Bypass Offsite Flows

The site is situated at the low levels of a valley shaped portion of land. The site receives run-off from the north, the west and the south.

The main offsite flow entering the project

boundary is in the form of a natural channel that is the concentration of the runoff from the adjacent hills and the overflow of Lake Dixon. This channel is mainly a natural channel with some areas of concrete lining. This channel is intended to pass thru the offsite drainage and accept treated drainage from the project area.

The northeast quadrant of the site receives runoff from the existing Humane Society property. This runoff is in the form of sheet flow that generally follows the direction of Save A Life Drive. The project proposes to direct these flows Easterly along the northerly project boundary by means of selective grading and natural earthen berms and discharge the runoff to the Escondido Creek and/or collect portions of the flows in a catch basin structure and pipe the flows to the flow-thru channel.

The southern project boundary (Drainage Area B) accepts runoff from the hill just south of the property. These flows will be collected in a proposed brow ditch and channeled away from the project development area and discharged to points at the western and the eastern ends of the natural channel.

A. Eucalyptus Grove Along Northerly Boundary (Area A)

The northwest quadrant (Drainage Area A) of the site receives runoff from the hills headed up to Daley Ranch. This runoff currently flows into the natural channel. The northwest quadrant of the site will remain in a natural state and those flows will continue to flow to the natural channel as they historically have.

B. Improved Existing Arena Area (Area B)

The runoff from the existing arena area will drain

by way of sheet flow to the area of the paved fire access road. The area of the arena will be considered self-treating since the proposed sand soil mixture of the arena will give this area a very large moisture holding capacity compared to the expected rainfall amounts. The arena areas are not expected to produce any significant runoff. The surrounding areas will all be natural ground surfaces and are expected to offer a significant amount of infiltration. The runoff that does reach the paved fire access road will be significantly pre-treated by the time it reaches the pavement. Once it reaches the pavement it will follow the paved access road to a proposed infiltration/ bio-retention area at the southern end of the trailer parking area (area E).

C. Trailer Parking Area (Area E)

The trailer parking area will drain by way of sheet flow in a generally southern direction. At the northern end of the trailer parking area is a small maintenance building and covered areas where the accumulated horse waste products will be stored prior to removal. The parking area will be surfaced with decomposed granite (DG) and will provide a large area for sub-surface storage and infiltration of stormwater. The relatively small impervious area of the maintenance building and muck storage areas will be treated by natural processes during the travel time across the DG parking area. Runoff that does reach the southern end of this area will be treated in the previously mentioned infiltration/ bio-retention area.

D. Lower Equestrian Area (Area C)

The lower equestrian area is composed of one rectangular arena and two smaller round arenas. The ground surface will slope upward to the west. On top of the sloped area will be a shade structure/ concession area. In front of the concession area will be amphitheater style seating. All of the drainage from area C is directed by way of sheet flow to an infiltration/ bio-retention area next to the existing flow thru drainage

channel. All of the runoff from this area will be treated either by natural process (infiltration) as it travels to the bio-retention area, or treated in the bio-retention area before it is released to the flow-thru channel.

E. Common Gathering and Picnic area (Area D)

The Common Gathering and Picnic (Picnic) area will be surfaced with turf and surrounded by paved sidewalks. The entire area will be graded to drain to the lawn area where it will be treated by the natural processes of the grass filtration and infiltration. Any excess runoff will be piped to the flow-thru channel.

F. Therapeutic Arena Area (Area F)

The Therapeutic Arena Area has an existing ground surface that slopes gradually to the south. This area is entirely natural ground surface or engineered equestrian soil mix. The drainage from this area will follow the existing ground slope and drainage patterns and drain southerly along Save a Life Road. All surface runoff in this area will be treated by natural processes.

G. Overflow Parking Area (Area G)

The overflow parking area will be similar to the trailer parking area in that it will be surfaced with decomposed granite (DG) and will provide a large area for sub-surface storage and infiltration of stormwater. This area of the project slopes gently to the south. At the southern end of this area any precipitation that becomes runoff will be collected in an infiltration/ bio-retention area where it will be treated by infiltration or treated and released.

V. Treatment Sizing

Storm water treatment facilities are generally sized based on a percentage of the impervious areas that they are treating. Since this site has a low ratio of imperviousness to “open” (pervious) space, and the advantage that the site surfacing materials also provide significant storm water treatment properties, the integration of the treatment features is not expected to be a significant concern. Due to the lack of impervious surfaces in this project the standard area calculations for sizing treatment control BMP’s are less than typical. The formula used to size the Bio-retention facilities for the park and its pervious surfaces is the drainage area multiplied by 10% multiplied by the 4% minimum factor for water quality. In order to provide more area than the bare minimum and allow for possible increase in use, the determined area is then multiplied by a factor of safety of 1.5.

As discussed earlier, the primary treatment control BMP’s will be Infiltration and Bio-retention. Infiltration will occur during the routing of storm water over pervious surfaces prior to being collected, treated and further infiltrated in the Bio-retention facilities. The Bio-retention facilities sized for Areas B and E will have a 1,500 square foot minimum surface area. The Bio-retention facility for Area C will be built to a minimum of 500 square feet of surface area. The Bio-retention facility built for Area G will be built to 660 square feet. Each of these facilities will be built with a 36” deep bio/infiltration pit and a minimum 10” water storage depth at the surface.

VI. Storm Water BMP Maintenance

The maintenance of the drainage facilities and storm water treatment features is expected to be routine in nature. All of the storm water treatment features are incorporated into the project design such as pervious paving for the parking lots, infiltration/Bio-retention trenches, etc. The storm water treatment facilities all utilize natural processes to clean and filter the storm runoff. With reasonable site maintenance, such as collecting animal waste into approved structures, regular litter pick-up, and regular landscape maintenance, the storm water BMP’s should remain effective indefinitely. Primary inspections should take place after large rain events. Facilities in need of maintenance will exhibit excessive ponding or long draw down periods. Should any features require special maintenance, such as a clogged infiltration trench, then the problem should make itself obvious and easily identifiable by simple observation during routine landscape maintenance operations. Typical maintenance includes raking or disturbing the top layer of the Bio-retention facility to distribute fine sediments. If the system becomes clogged with sediments, replacement of portions of the bio material may be necessary.