OTAY RANCH VILLAGE 8 EAST
Preserve Edge Plan

April 2024

PREPARED FOR:
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Adopted on December 2, 2014
By Resolution No. 2014-235

Amended XX
By Resolution No. XX

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EXHIBITS

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I. INTRODUCTION

The purpose of the Preserve Edge Plan is to identify allowable uses within the 100-foot Preserve Edge located within the development area adjacent to the Otay Ranch Preserve. In accordance with Policy 7.2 of the Otay Ranch Resource Management Plan, a Preserve Edge Plan is to be developed for all SPA Plans that contain areas adjacent to the Preserve. The Preserve Edge is a 100-foot-wide strip of land within the development area adjacent to the Preserve. To provide further guidance relating to the content of the Preserve Edge Plan, the Chula Vista MSCP Subarea Plan contains policies related to land use adjacency. Otay Ranch GDP, RMP and MSCP policies are summarized and evaluated below. Areas subject to the Preserve Edge Plan requirements and facilities proposed within the Preserve are depicted on Exhibit 1 and further described below.

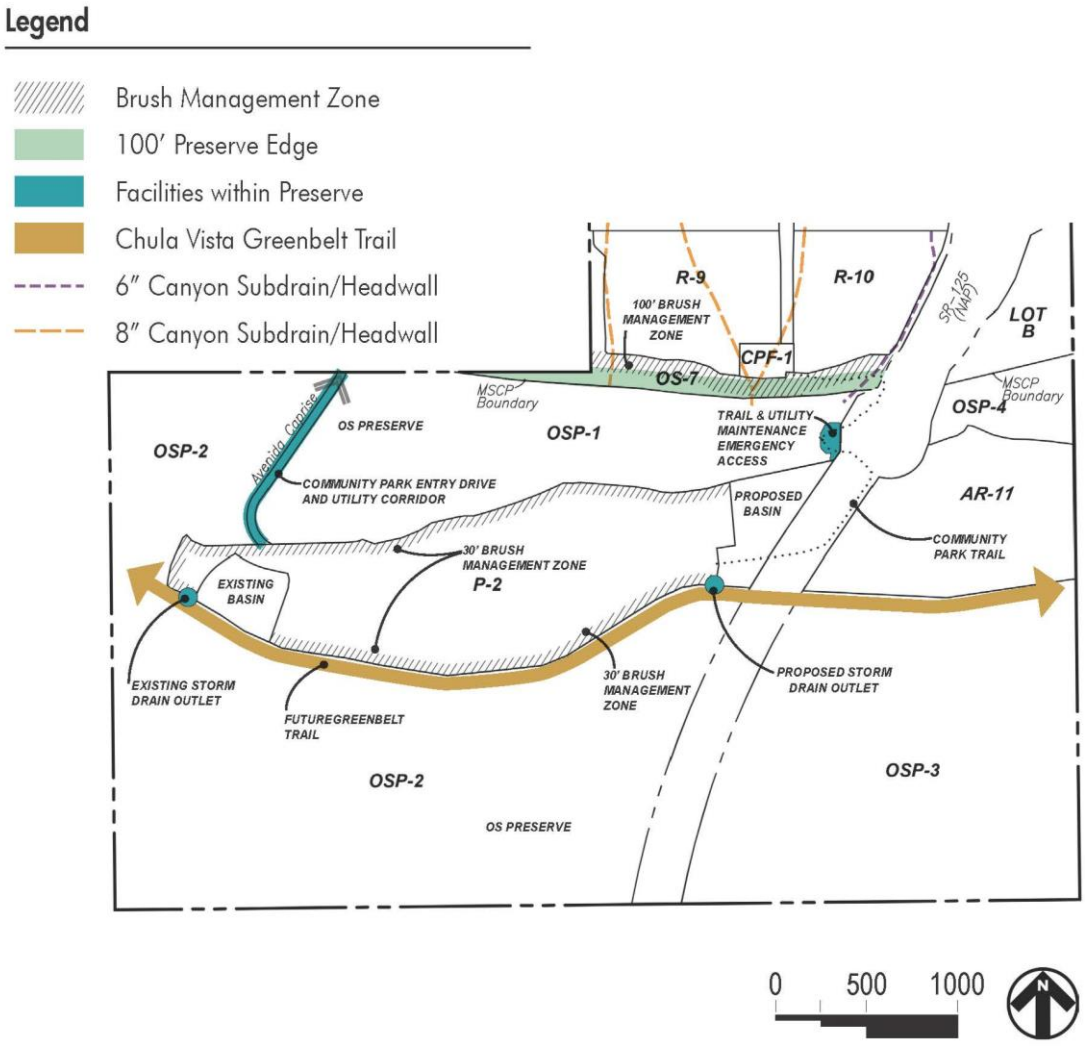


Exhibit 1: Areas Subject to the Preserve Edge Plan and Facilities Proposed within the Preserve

II. FACILITIES AND IMPROVEMENTS PROPOSED WITHIN THE PRESERVE

The facilities described below and depicted on Exhibit 1 are proposed within the MSCP Preserve and are not subject to this Preserve Edge Plan, but rather are discussed for context purposes only. Per the MSCP Subarea Plan, certain infrastructure and roads planned in conjunction with development will be allowed to be constructed, operated and maintained within the Preserve. The Subarea Plan anticipated these "Planned" and "Future" facilities and requires compliance with the siting criteria identified in Section 6.3.3.4 of the Subarea Plan. The Project's Biological Report provides the siting criteria analysis. Facilities proposed within the Preserve include:

A. Utilities

The Village 8 East SPA Plan ("Project") includes sewer connections to the existing Salt Creek Interceptor located in the Otay River Valley south of Village 8 East, Potable and Recycled Water Facilities and Storm Drain Facilities necessary to serve Village 8 East and the Active Recreation Area (AR-11) located east of SR-125.

Two storm drain outlets are proposed to serve Villages 8 East and the Community Park. Both storm drain facilities outlet directly to the Otay River. The storm drain outlets are located south of the Otay Ranch Community Park South (P-2 Community Park). These facilities are partially within the area designated "Active Recreation" in the MSCP Subarea Plan and partially within the MSCP Preserve. With development of Village 8 West, located west of Village 8 East, a water quality basin and storm drain outlet were constructed to serve flows from a portion of the Community Park and the adjacent Village 8 West development area. These flows are conveyed through the existing western basin.

The storm drain outlet proposed at the eastern portion of the P-2 Community Park is within the MSCP Preserve and is comprised of a storm drain pipe, headwall/dissipation and rip rap. Storm drain flows from Village 8 East are conveyed to the Otay River Valley via the eastern storm drain outlet.

In addition to the storm drain outlets serving Village 8 East, an existing storm drain facility within the SR-125 right of way conveys flows from existing SR-125 improvements. This facility will be extended with a headwall/dissipation and rip rap outlet structure to the Otay River. This facility is located entirely within the area designated "Active Recreation" in the MSCP Subarea Plan.

The Community Park Trail/Maintenance and Emergency Access Road located west of the SR-125 ROW includes storm drain, recycled water and sewer facilities. The grading associated with a portion of this facility impacts the MSCP Preserve.

A sewer line and potable water line is proposed within the Community Park Entry Drive right-of-way. This facility is sized to serve Village 8 West and includes a sewer connection to serve the Community Park. A potable water line is also

proposed within the Community Park Entry Drive right-of-way sized to serve the Community Park. The Community Park Entry Drive is planned to cross the MSCP Preserve between Village 8 West and the Otay Ranch Community Park South (P-2). (See Exhibits 3 and 4)

B. Canyon Subdrains

A series of canyon subdrains are proposed within the Village 8 East development area and are proposed to outlet south of the residential parcels, within the MSCP Preserve. Two 8" and one 6" subdrains are proposed. See Exhibit 1 for the approximate locations of the subdrains. The subdrain outlets are comprised of a concrete headwall. The outlet pipes extend a maximum of 20' from the Preserve Boundary (See Exhibit 2). Additional details are provided in the Village 8 East Geotechnical Study prepared by GEOCON.

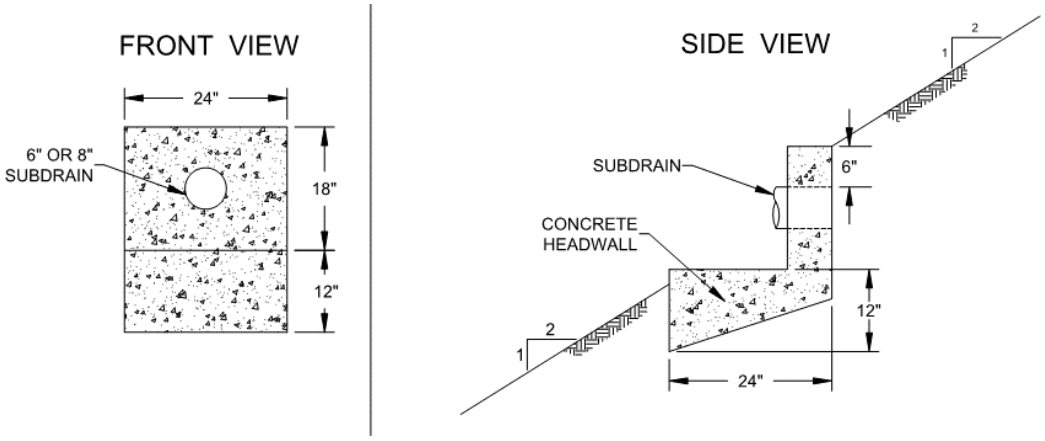


Exhibit 2: Typical Canyon Subdrain Detail

C. Access Facilities

The Village 8 East SPA Plan includes development of a portion of the Active Recreation Area identified in the Otay Ranch GDP, Chula Vista MSCP Subarea Plan and the Otay Valley Regional Park Concept Plan (AR-11). The western portion of AR-11 has been designated as the Otay Ranch Community Park South (P-2) on the Village 8 East Site Utilization Plan. In order to provide vehicular, pedestrian, emergency, and maintenance access to this recreational area and proposed water quality basins, two access points are proposed. The Community Park Entry Drive is entirely within the Preserve, while a portion of the Community Park Trail is within the Preserve.

- Full public vehicular/pedestrian access to the Community Park is planned through adjacent Village 8 West via Avenida Caprise, continuing south through the Preserve (Community Park Entry Drive) and connecting to the Community Park along its northwestern edge. As discussed above, utilities

serving Village 8 West and the Community Park are co-located in the Community Park Entry Drive. This utility corridor has been graded and constructed as part of the Village 8 West project. The Community Park Entry Drive is comprised of two travel lanes, a landscaped parkway and a 10' wide Chula Vista Regional Trail on one side (See Exhibit 4). Post and rail fencing is proposed along the entire length of the Regional Trail. Utilities serving adjacent Village 8 West (storm drain and sewer) are included in the Community Park Entry Drive. Potable water service will be extended within the Community Park Entry Drive right-of-way from the point of connection in Village 8 West to the Community Park.

- The Chula Vista Regional Trail planned along the Community Entry Drive (Avenida Caprise) extends south of the P-2 Park entry. This segment crosses the MSCP Preserve to connect to the planned Chula Vista Greenbelt Trail. Fencing and signage will be incorporated into the trail design as required. (See Exhibit 3 and 7).

- Shared emergency/maintenance/pedestrian access to public storm drain, sewer and recycled water facilities, the Village 8 East basin and the Community Park is provided along the Community Park Trail located adjacent to and within the SR-125 ROW along the eastern end of the Community Park (See Exhibits 3 and 5). This facility is comprised of a 20-24' wide paved roadway. Post and rail fencing is provided along both sides. A small portion of this facility results in grading impacts within the Preserve (See Exhibit 1). In addition to providing access, utilities serving Village 8 East (storm drain and sewer) and the P-2 Community Park/AR-11 (recycled water) are co-located within the public utility and access easement. Public vehicular access is prohibited along the Community Park Trail, except for the portion connecting the P-2 Park and AR-11.

- The Chula Vista Greenbelt Trail/Otay Valley Regional Park (OVRP) Trail is co-located within the existing Salt Creek Sewer Easement on the north side of the Otay River Valley, south of the P-2 Community Park (See Exhibits 3 and 6). This trail is a Planned Facility in the MSCP Subarea Plan. Physical improvements associated with implementation of this trail (fencing and signage) would not create any impacts on the MSCP Preserve, as it is planned within a fully disturbed area. See the Biological Report for the MSCP adjacency analysis.

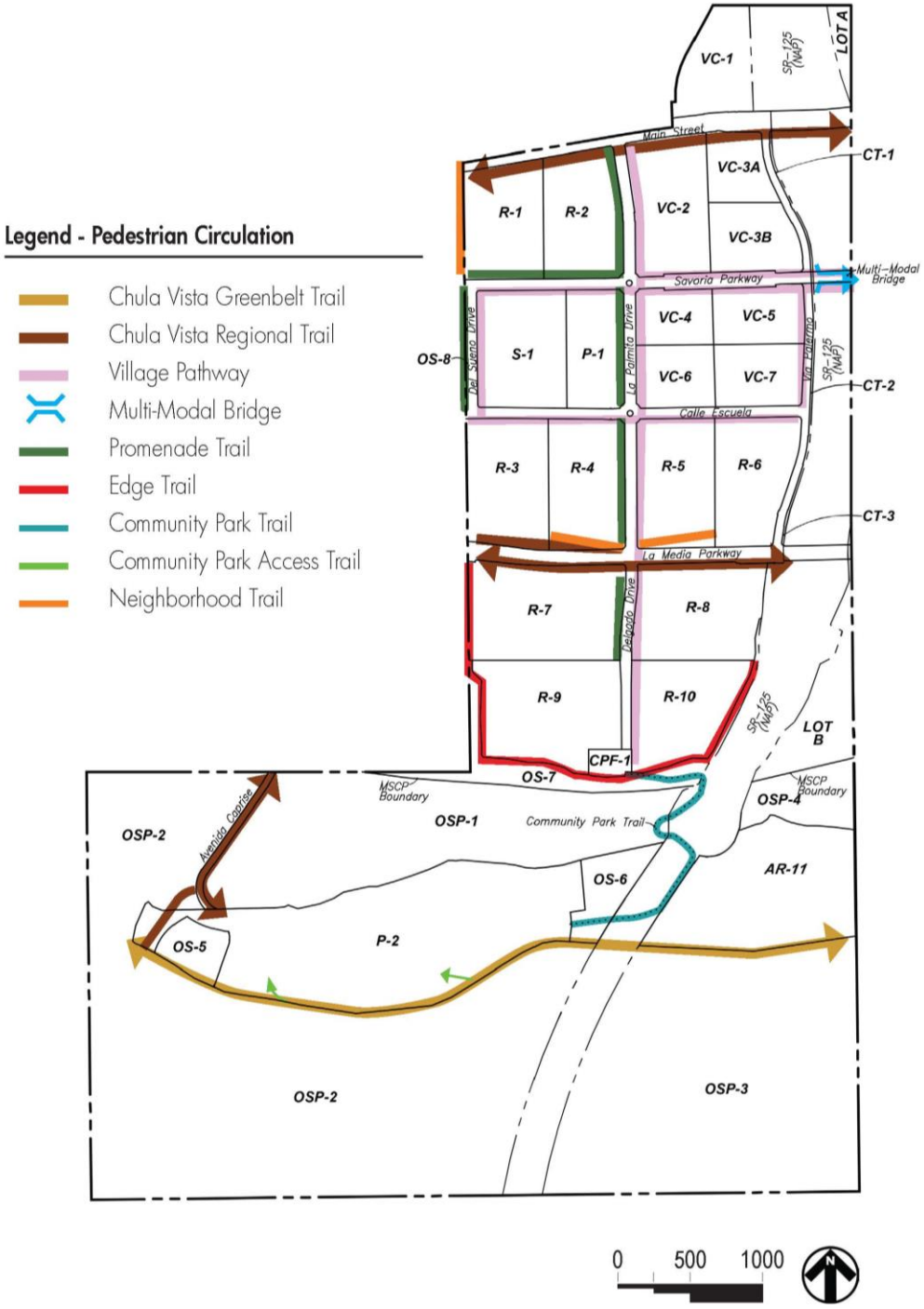
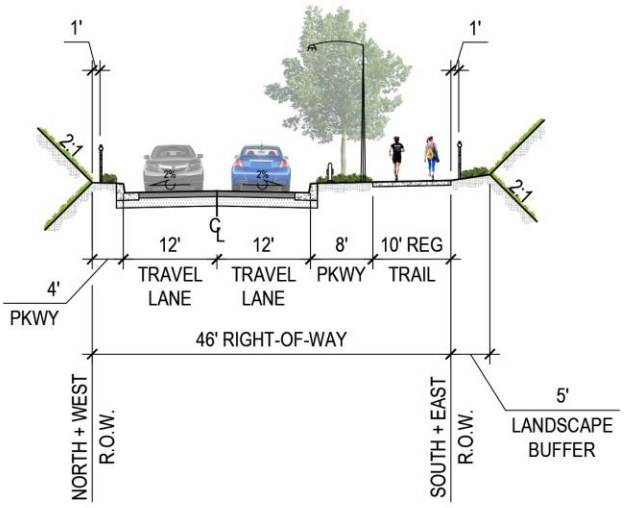
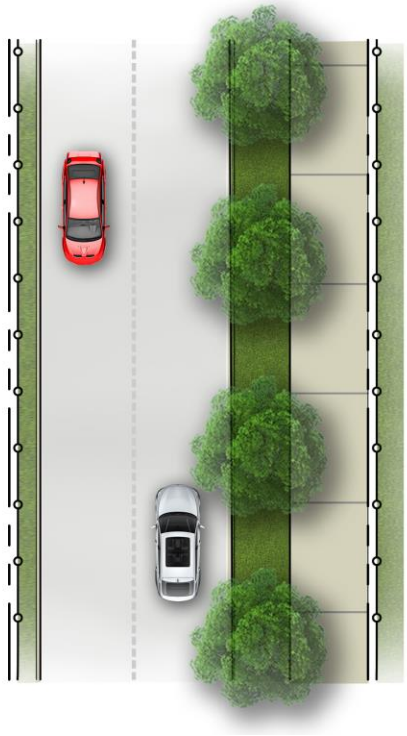


Exhibit 3: Pedestrian Circulation Plan





Note: The Community Park Entry Drive (Avenida Caprise) was included in the adopted Village 8 West SPA and Tentative Map as an off-site improvement. This illustrative representation is consistent with the Village 8 West approved design and is provided for reference only.

Exhibit 4: Community Park Entry Drive

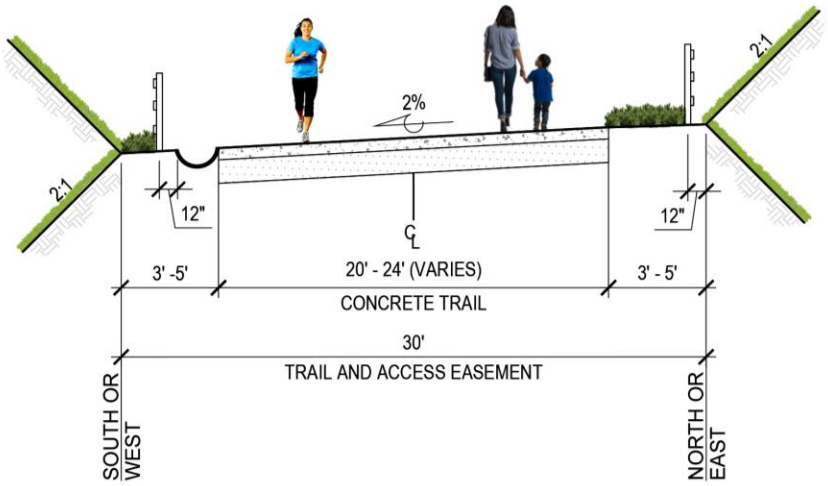


Exhibit 5: Community Park Trail

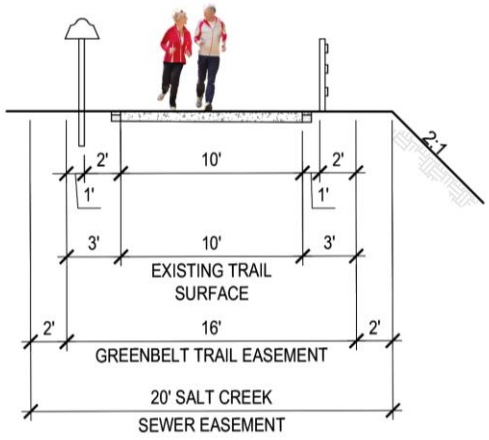
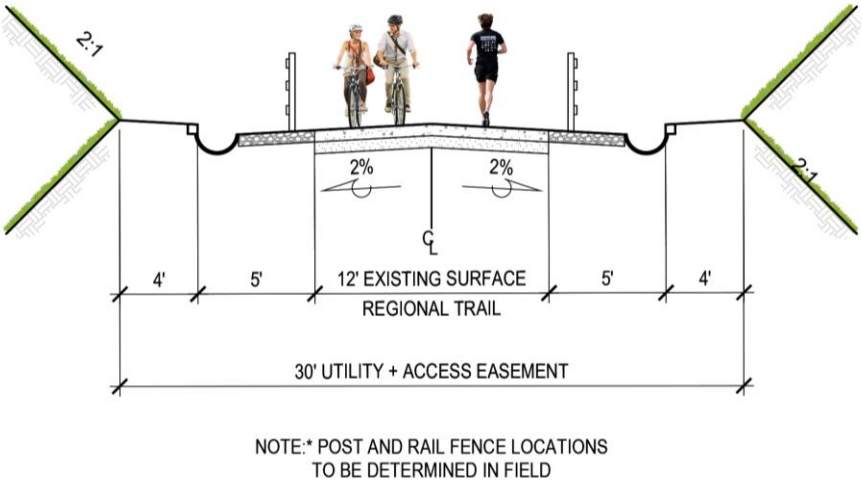


Exhibit 6: Chula Vista Greenbelt Trail



Note: Grading and surface improvements within the 30' Utility & Access Easement were approved with the Village 8 West SPA, Tentative Map and Grading Plan as an off-site improvement. Implementation of the Regional Trail component within the utility corridor is limited to fencing, to be determined based on field conditions. This illustrative representation is consistent with the approved design and is provided for reference only.

Exhibit 7: Chula Vista Regional Trail

III. FACILITIES PROPOSED WITHIN THE 100-FOOT PRESERVE EDGE

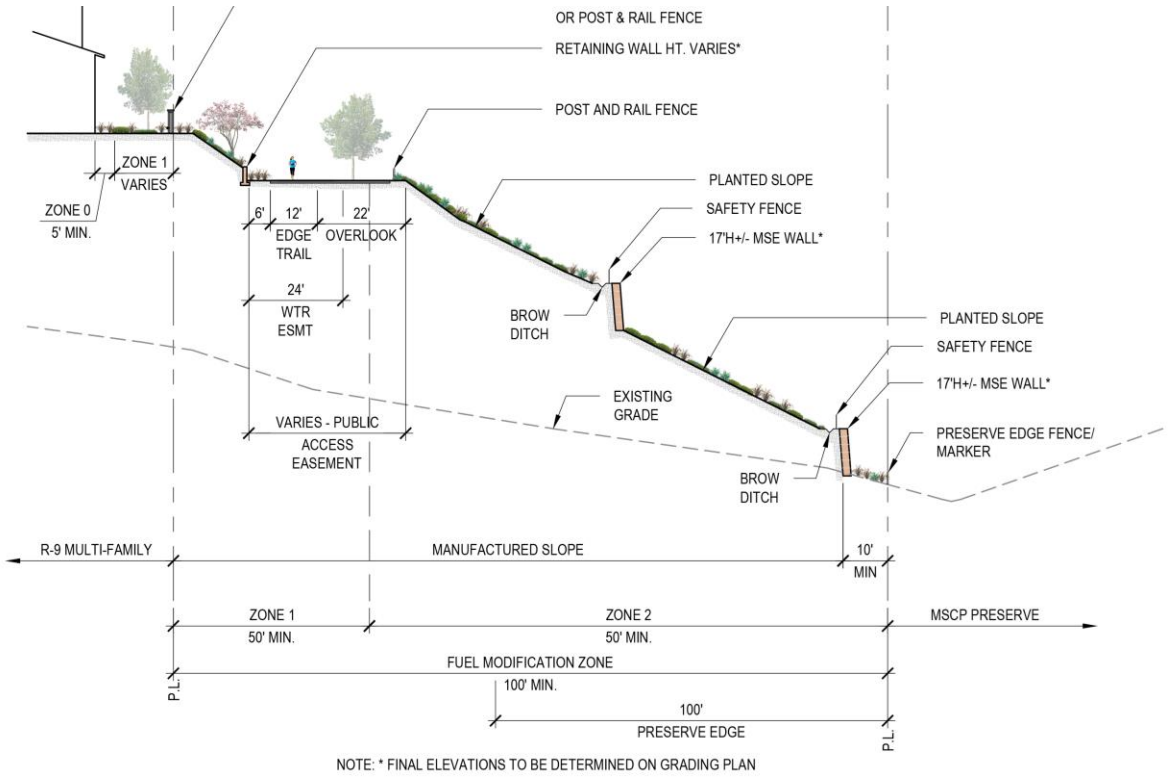
Pursuant to the Otay Ranch Phase 2 Resource Management Plan:

> "Development within the 100-foot edge is restricted to uses that are allowed within the Preserve and the following uses:
>
> 1. Brush management in order to reduce fire fuel loads and reduce potential fire hazard [7.2].
> 2. Landscaping that is compatible with open space, as demonstrated by a Preserve Edge Plan [7.2]. No invasive plant species, such as those defined by the California Invasive Plant Council Invasive Plant Inventory, shall be included in the plant palette.
> 3. Fencing and walls that are built or landscaped in a way to minimize visual impacts to the Preserve and the OVRP. No structures other than fencing and walls shall be allowed [7.2].
> 4. Trails for passive recreational use. Trails should incorporate fencing or barriers and signage to reduce the likelihood of human intrusion into the Preserve.
> 5. Detention basins, brow ditches, storm drains, and other drainage features to protect the quality of the adjacent Preserve."

Consistent with RMP requirements, the Proposed Project includes landscaping, brush management areas, retaining walls and trails, including post and rail fencing, within the Preserve Edge, as depicted on Exhibit 1 and described below. There are no structures proposed within the 100-foot Preserve Edge.

A. Retaining Walls

A series of retaining walls is proposed within the 100' Preserve Edge along the southern edge of Village 8 East, outside of the MSCP Preserve. The retaining wall system is broken into four wall sections ranging in height from ±7' to ±17.5'. Wall heights and locations are conceptual, subject to final engineering. A 10' pedestrian only access and maintenance buffer area is provided between the base of the wall and the MSCP Preserve Boundary, A Preserve Edge Fence or Marker is provided at the Preserve Boundary. (See Exhibit 8)

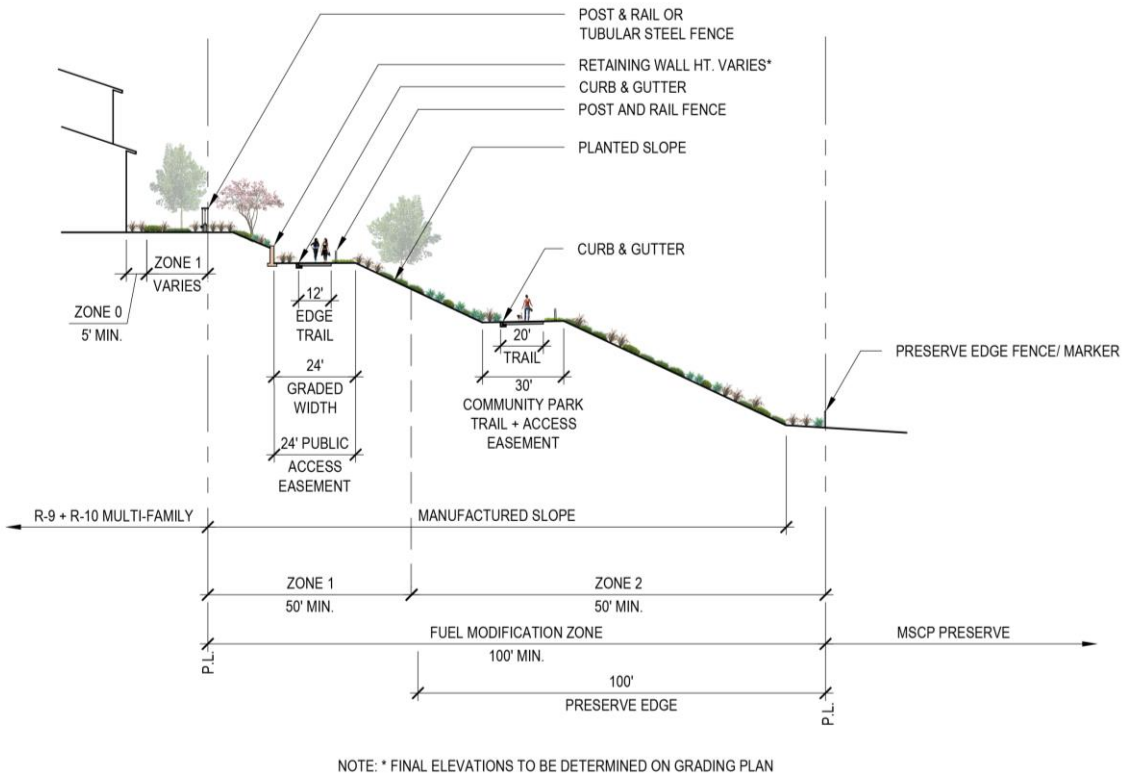


Note: The above exhibit is based on a conceptual plan. Final design to be determined during final engineering, including retaining wall location, height and setback.

Exhibit 8: Cross Section at R-9 Multi-Family

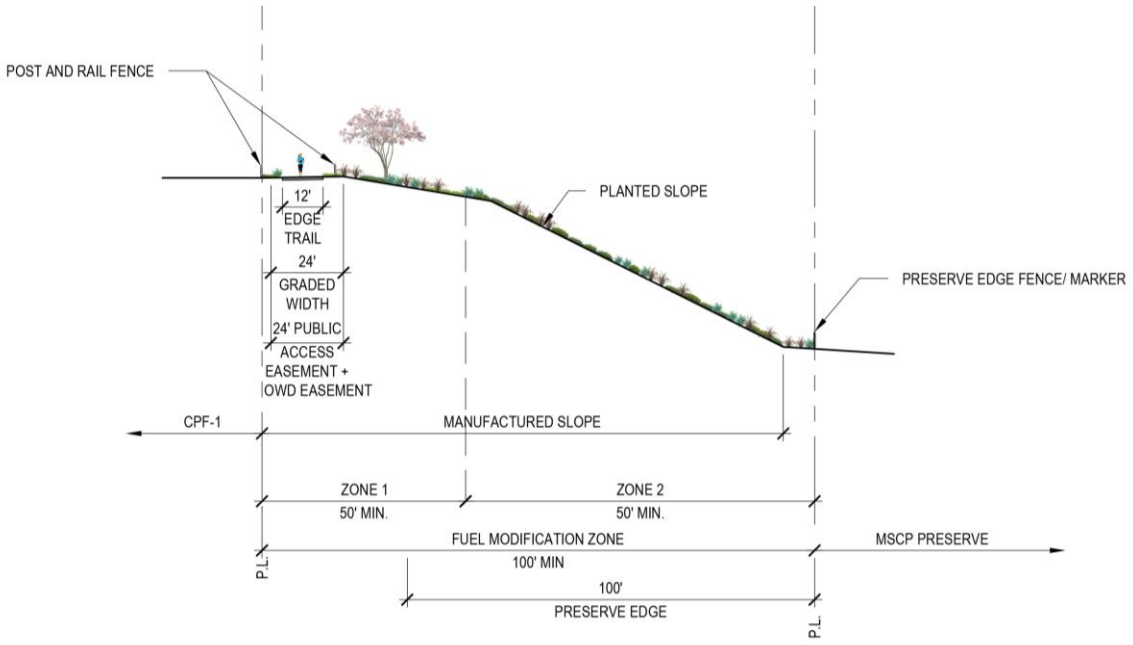
B. Trails

Village 8 East proposes a portion of the Community Park Trail within 100' Preserve Edge. The Community Park Trail provides emergency, pedestrian and maintenance access to a utility corridor co-located with the trail. Within the Village 8 East development area, the Community Park Trail connects to the CPF-1 site, planned as a private recreation facility overlooking the Otay River Valley. This trail segment provides a critical link between Village 8 East and the P-2 Community Park and the City of Chula Vista Greenbelt Trail system located in the Otay River Valley (See Exhibits 5 and 9). Post and rail fencing and signage will be incorporated into the trail design as required.



Note: The above exhibit is based on a conceptual plan. Final design to be determined during final engineering.

Exhibit 9: Cross Section at R-9 & R-10 Multi-Family



Note: The above exhibit is based on a conceptual plan. Final design to be determined during final engineering.

Exhibit 10: Cross Section at CPF-1 Site

IV. COMPLIANCE WITH RMP/MSCP SUBAREA PLAN POLICIES

The following discussion provides a description of policies identified in the Chula Vista MSCP Subarea Plan, which were developed in consideration of the requirements of the RMP, as well as compliance measures to be carried out by the various components of the SPA Plan. The discussion is divided into edge effect issue areas identified in the Subarea Plan.

A. Drainage

MSCP Policy:

"All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the Preserve. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical- neutralizing compounds (e.g., clay compounds) when necessary and appropriate." (Page 7-25)

Compliance:

The *Village 8 East TM Drainage Study* ("Drainage Plan") and *PDP – Stormwater Quality Management Plan* ("SWQMP") prepared by Hunsaker and Associates assessed the existing and developed drainage and water quality conditions in the SPA Plan area. In conformance with the GDP and SPA requirements, the Drainage Plan provides the necessary hydrological studies, analysis and design solutions to provide appropriate urban runoff and water quality for the SPA Plan Area as described below and depicted on Exhibit 11, Water Quality Basin Plan.

Drainage

- All pre- development and post- development runoff from Village 8 East is within the Otay River Valley watershed.

- Runoff from the developed portion of Village 8 East and co-mingled flow from La Media Parkway (Village 8 West) will be routed via a storm drain system southerly. A cleanout with an internal diversion will be located at the downstream portion of the system to direct the low flow to a proposed detention base and volume based Modular Wetlands System located in the eastern portion of the P-2 Community Park to address water quality requirements, while the peak flows continue toward the discharge point at the Otay River. The detention basin and Modular Wetlands System outlets directly to the Otay River via internal storm drain systems. Energy dissipating measures such as D-41 headwalls or APWA energy dissipating impact basin (or alternative) along with riprap are proposed at each respective outlet.

- A biofiltration water quality basin is proposed at the southwestern corner of the P-2 Community Park to treat runoff from the park driveway and a portion of the park. The final basin design will occur during the park master planning process.

- Due to the impact of the Savage Dam at the Otay Reservoir, studies have determined that the development of the Village 8 East site will not increase the 100-year frequency peak flows in the Otay River. Therefore, no detention basins are required.

B. Village 8 East Water Quality

The development of the SPA Plan area will implement all necessary requirements for water quality as specified by the State and local agencies.

The development will meet the requirements of the City's Standard BMP Design Manual (BMPDM), the Jurisdictional Runoff Management Program and the Storm Water Management and Discharge Ordinance (as specified in the City of Chula Vista Development and Redevelopment Storm Water Management

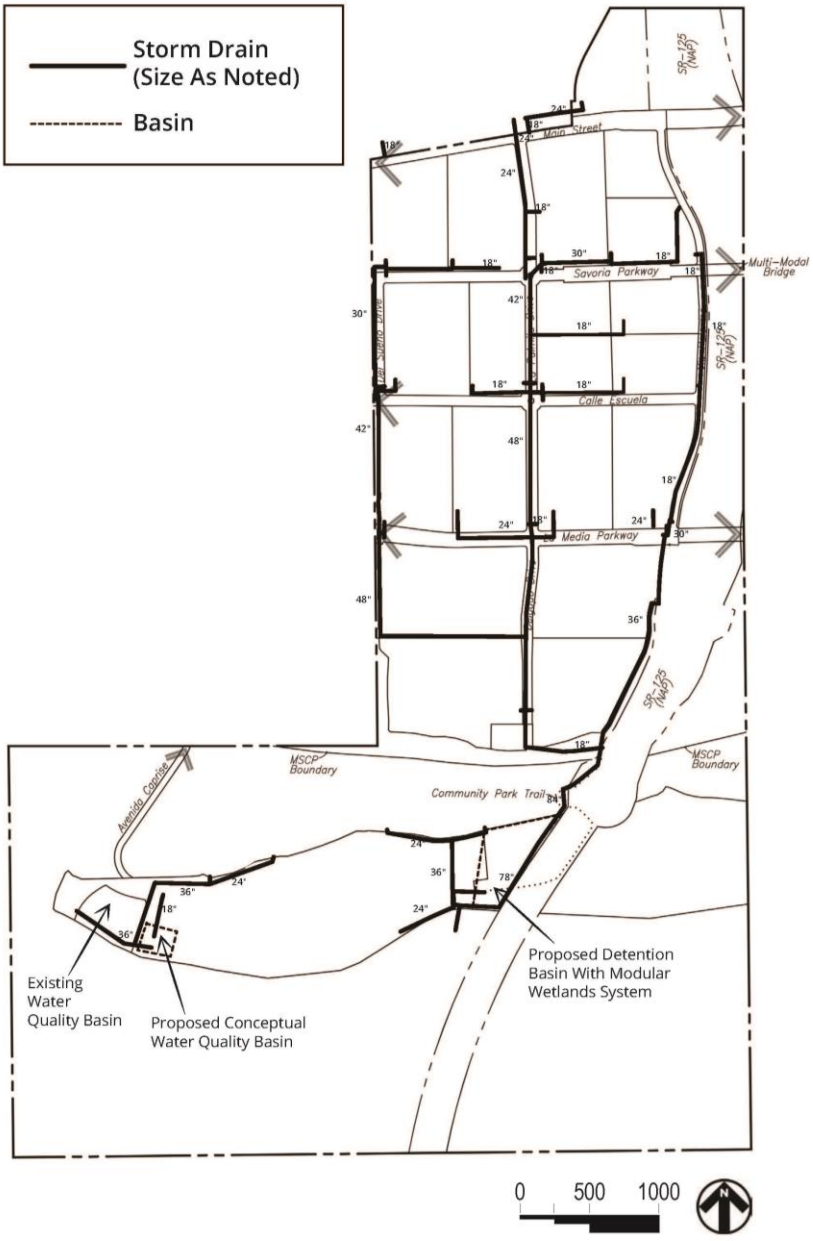
Standards/Requirements Manual).

The Otay River is a USGS blue line stream, which makes it a waterway of the United States under the Clean Water Act (CWA). All development in excess of five acres must incorporate urban runoff planning, which will be detailed at the Tentative Tract Map level. The conceptual grading and storm water control plan for the SPA Plan area provides for water quality control facilities to ensure protection for the Otay River.

According to the San Diego Bay Watershed Management Area Analysis, the Otay River is categorized as an exempt facility from hydromodification management requirements. Since all runoff from the developed area within the Village 8 East SPA is proposed to drain directly to the Otay River, hydromodification management measures are not required for this development.

The Biological Resources Technical Report further discusses the potential for erosion/scouring, habitat removal, habitat conversion, flooding and washing out existing/future facilities and the cumulative effects as a result of increased discharge volumes and the rate of discharge into the Otay River.

In addition to the permanent drainage facilities, temporary desiltation basins to control construction related water quality impacts will be constructed within the SPA Plan Area with each grading phase to control sedimentation during construction. The interim desiltation basins are designed to prevent discharge of sediment from the project grading operations into the natural drainage channel and will be detailed in the Storm Water Pollution Prevention Plans (SWPPP) as required by the Construction General Permit from the State Water Resources Control Board. The exact size, location and component elements of these interim basins will be identified on the grading plans and SWPPP. Temporary, interim measures will occur within the development area.



Note: The above exhibit is based on a conceptual plan. Final design to be determined during final engineering.

Exhibit 11: Water Quality Basin Plan

C. Toxic Substances

MSCP Policy:

"All agricultural uses, including animal-keeping activities, and recreational uses that use chemicals or general by-products such as manure, potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate methods on their site to reduce impacts caused by the application and/or drainage of such materials into the Preserve. Methods shall be consistent with requirements requested by the Regional Water Quality Control Board (RWQCB) and National Pollution Discharge Elimination System Permit (NPDES)." (Page 7-26)

Compliance:

Agricultural uses adjacent to the Preserve have been phased out, consistent with the Village 8 East Agricultural Plan. There are no agricultural activities currently occurring on the site.

As described in greater detail in the SWQMP for Village 8 East, prepared by Hunsaker & Associates, the combination of proposed construction and permanent BMPs will reduce, to the maximum extent practicable, the expected project pollutants and will not adversely impact the beneficial uses of the receiving waters.

Anticipated pollutants from the project site may include sediments, nutrients, heavy metals, organic compounds, trash and debris, oxygen demanding substances, oil and grease, bacteria and viruses and pesticides. Runoff from Village 8 East will be transmitted via public storm drain to a detention/water quality storage basin and volume based Modular Wetlands System located in the eastern portion of the P-2 Community Park.

A second water quality biofiltration basin is conceptually located in the southwestern portion of the P-2 Park to treat flows from the park driveway and a portion of the P-2 Park. Stormwater pollutants are removed through physical and biological processes, including adsorption, filtration, plant uptake, microbial activity, decomposition, sedimentation and volatilization (EPA 1999). Adsorption is the process whereby particulate pollutants attach to soil (e.g., clay) or vegetation surfaces. Pollutants removed by adsorption include metals, phosphorus, and hydrocarbons. Filtration occurs as runoff passes through the bioretention area media, such as the sand bed, ground cover, and planting soil. Treated water is released into the Otay River within 36 hours of capture. This system ensures that, to the greatest extent practicable, Preserve areas adjacent to Village 8 East will not be impacted from toxic substances that may be generated from the Village 8 East project site.

D. Lighting

MSCP Policy:

"Lighting of all developed areas adjacent to the Preserve should be directed away from the Preserve, wherever feasible and consistent with public safety. Where necessary, development should provide adequate shielding with non- invasive plant materials (preferably native), berming, and/or other methods to protect the Preserve and sensitive species from night lighting. Consideration should be given to the use of low-pressure sodium lighting." (Page 7-26)

Compliance:

Improvement plans for areas within or adjacent to the 100' Preserve Edge will include shielded lighting designs that avoid spillover light in the Preserve. Any proposed lighting along the southern edge of Village 8 East and the Community Park Entry Drive will be located the greatest distance possible away from the Preserve, while meeting public safety lighting requirements. The Community Park Concept Plan incorporates active recreation uses such as baseball fields, soccer fields, tennis courts, and parking areas which may include lighting and security lighting on restroom and maintenance buildings. Per the Chula Vista MSCP Subarea Plan (Section 6.3.4 Otay Valley Regional Park Plan Uses, Page 6- 19), "Active recreation uses are identified in the Otay Ranch GDP as allowed uses in the Otay Ranch Preserve are not subject to the 100-foot Edge Plan requirements."

Lighting Plans and accompanying photometric analyses must be prepared in conjunction with improvement plans that include lighting in areas adjacent to the Preserve and during the P-2 Community Park master planning process to illustrate the location of proposed lighting standards and type of light shielding measures. Lighting Plans must demonstrate that light spillage into the Preserve is avoided/minimized to the greatest extent possible. City of Chula Vista updated street lighting standards require installation of energy saving LED lamps on all City streets.

E. Noise

MSCP Policy:

"Uses in or adjacent to the Preserve should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve. Excessively noisy uses or activities adjacent to breeding areas, including temporary grading activities, must incorporate noise reduction measures or be curtailed during the breeding season of sensitive bird species."

Where noise associated with clearing, grading or grubbing will negatively impact

an occupied nest for the least Bell's vireo during the breeding season from March 15 to September 15, noise levels should not exceed 60 CNEL. However, on a case-by-case basis, if warranted, a more restrictive standard may be used. If an occupied Least Bell's Vireo nest is identified in a pre-construction survey, noise reduction techniques, such as temporary noise walls or berms, shall be incorporated into the construction plans to reduce noise levels below 60 CNEL.

Where noise associated with clearing, grubbing or grading will negatively impact an occupied nest for raptors between January 15 and July 31 or the California gnatcatcher between February 15 and August 15 (during the breeding season), clearing, grubbing or grading activities will be modified, if necessary, to prevent noise from negatively impacting the breeding success of the pair. If an occupied raptor or California gnatcatcher nest is identified in a pre-construction survey, noise reduction techniques shall be incorporated into the construction plans. Outside the bird breeding season(s), no restrictions shall be placed on temporary construction, noise." (Page 7-26)

Compliance:

The project EIR includes Mitigation Measures requiring pre-grading surveys for gnatcatchers, vireos and nesting raptors. Based on those surveys and locations of nesting birds in the year of grading, if it is determined that the noise impact thresholds established in the Chula Vista MSCP Subarea Plan would be exceeded, the Applicant would be required to reduce the impact below the designated threshold through either modification of construction activities (such as berming) or avoiding clearing, grubbing, grading or construction activities within 300 feet of an occupied nest site. Post- construction noise impacts associated with residential development will be minimized to the greatest extent possible through site layout. There are no single family lots backing onto the Preserve Edge. Activities associated with the ongoing maintenance of the water quality basin and storm drain outlets are provided in the Village 8 East TM Drainage Study.

The proposed P-2 Community Park was identified in the Otay Valley Regional Park Concept Plan as Active Recreation #11. Per the MSCP Subarea Plan, Section 6.3.4, Otay Valley Regional Park Uses, "Active recreation areas are identified in the Otay Ranch GDP as allowed uses in the Otay Ranch Preserve and are not subject to the 100-foot Edge Plan requirements." However, as part of the University Village EIR preparation, Anita Hayworth, Ph.D. (Dudek), reviewed the Conceptual Community Park Concept Plan as it relates to species points in the vicinity of the park. Dr. Hayworth identified up to four gnatcatcher points north of the Community Park site and several documented Vireo sightings west and south of the Otay Quarry. However, noise generating sports fields are located approximately 150 feet from these sensitive receptors. In addition, riparian habitat (Willow patch) within the Otay River Valley is approximately 150 feet south of the soccer field, providing ample setbacks from mapped sensitive habitats. After reviewing minor adjustments

to field locations, Dr. Hayworth indicated that no additional changes to the 2014 Conceptual Community Park Plan were necessary. Further, Dr. Hayworth determined that limitations to park activities during breeding seasons (February 15 and August 15) are not warranted. See Biological Report for MSCP Adjacency Analysis. These recommendations will remain applicable during the park master planning process.

F. Invasive Plant Materials

MSCP Policy:

"No invasive non-native plant species shall be introduced into areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve should be planted with native species that reflect the adjacent native habitat. The plant list contained in the "Wildland / Urban Interface: Fuel Modification Standards," and provided as Appendix L of the Subarea Plan, must be reviewed and utilized to the maximum extent practicable when developing landscaping plans in areas adjacent to the Preserve." (Page 7-27)

Compliance:

Landscape plans within the 100' Preserve Edge will not contain invasive species, as determined by the City of Chula Vista and identified in the MSCP Subarea Plan, Appendices N, List of Invasive Species. Landscape areas within the 100' Preserve Edge including, but not limited to, manufactured slopes, must comply with the Approved Plant List provided as Attachment "A" to this document. This list also meets the requirements outlined in the attachment to the Village 8 East Fire Protection Plan and 2023 Addendum, as some of these areas are also within the 100' Brush Management Zone required by the MSCP Subarea Plan. Any changes to the Approved Plant List must be approved by the Director of Development Services or their designee. The area may be planted with container stock (liners) or a hydroseed mix.

G. Buffers

MSCP Policy:

"There shall be no requirements for buffers outside the Preserve, except as may be required for wetlands pursuant to Federal and/or State permits, or by local agency CEQA mitigation conditions. All open space requirements for the Preserve shall be incorporated into the Preserve. Fuel modification zones must be consistent with Section 7.4.4 of the Subarea Plan."

Compliance:

Brush Management Zones have been incorporated into the proposed development areas of the SPA Plan pursuant to the requirements of the Subarea Plan. Where

appropriate, graded landscaped slope areas will be maintained pursuant to Fire Department requirements and will be outside of the Preserve. The Village 8 East Fire Protection Plan and 2023 Addendum provide specific fuel modification requirements for the entire SPA Plan Area. Consistent with the Chula Vista MSCP requirements, a 100' Brush Management Zone has been established and portions of the Brush Management Zone coincide with the 100' Preserve Edge. A description of the Brush Management Zones is provided below and shown in Exhibits 8, 9, 10 and 13.

Brush Management Zones:

Zone 1: All public and private areas located between a structure's edge and 50 feet outward. These areas may be located on publicly maintained slopes, private open space lots, public streets, and/or private yards.

- Provide a permanent irrigation system within this irrigated wet zone.
- Only those trees on the Approved Plant List and those approved by the Director of Development Services or designee as not being invasive are permitted in this zone.
- All plant and seed material to be locally sourced to the greatest extent possible to avoid genetically compromising the existing Preserve Vegetation.
- Tree limbs shall not encroach within 10 feet of a structure or chimney, including outside barbecues or fireplaces.
- Provide a minimum of 10 feet between tree canopies.
- Additional trees (excluding prohibited or highly flammable species) may be planted as parkway streets on single loaded streets.
- Limit 75% of all groundcovers and sprawling vine masses to a maximum height of 18 inches.
- 25% of all groundcover and sprawling vine masses may reach a maximum height of 24 inches.
- Groundcovers much be of high-leaf moisture content.
- Shrubs shall be less than 2 feet tall and planted on 5-foot centers.
- Randomly placed approved succulent type plant material may exceed the height requirements, provided that they are spaced in groups of no more than three and a minimum of five feet away from described "clear access routes."
- Vegetation/Landscape Plans within this zone shall be in compliance with the Preserve Edge Plan, the Chula Vista MSCP Subarea Plan and the Village 8 East Fire Protection Plan.

Zone 2: All public and private areas located between the outside edge of Zone 1 and 50 feet outward to 100 feet, per the Village 8 East Fire Protection Plan. These areas may be located on public slopes, private open space lots and public streets,

and are subject to the criteria provided below:

- Utilize temporary irrigation to ensure the establishment of vegetation intended to stabilize the slopes and minimize erosion.
- Trees may be located within this zone, provided they are planted in clusters of no more than three. A minimum distance of no less than 20 feet shall be maintained between the tree cluster's mature canopies.
- Only those trees on the Approved Plant List and those approved by the Director of Development Services or Designee as not being invasive are permitted in this zone.
- All plant and seed material to be locally sourced to the greatest extent possible to avoid genetically compromising the existing Preserve Vegetation.
- Limit 75% of all groundcover and sprawling vine masses to a maximum height of 36 inches.
- 25% of all groundcover and sprawling vine masses may reach a maximum height of 48 inches.
- Randomly placed approved succulent type plant material may exceed the height requirements, provided that they are spaced in groups of no more than three and a minimum of five feet away from described "clear access routes."
- Shrubs may be planted in clusters not exceeding a total of 400 sq. ft.
- Provide a distance of no less than the width of the largest shrub's mature spread between each shrub cluster.
- Provide "avenues" devoid of shrubs a minimum width of 6 feet and spaced a distance of 200 linear feet on center to provide a clear access route from toe of slope to top of slope.
- When shrubs or other plants are planted underneath trees, the tree canopy shall be maintained at a height no less than three times the shrub or other plant's mature height (break up any fire laddering effect).
- There shall be no hedges.

A more detailed description of the Brush Management Zones, including maintenance activities, planting programs, etc. is provided in the University Villages Fire Protection Plan and Village 8 East Fire Protection Plan Addendum (2023). Any proposed changes in the Brush Management Zone are subject to approval by the Chula Vista Director of Development Services and the Chula Vista Fire Chief.

The 100' Preserve Edge coincides with the 100' Brush Management Zone in some areas. Retaining walls are also included within Zone 2 of the 100' Brush Management Zone.

The irrigation design proposed for the Preserve Edge includes permanent irrigation within Brush Management Zone 1 (0-50 feet) and temporary irrigation in Zone 2 to ensure the establishment of vegetation intended to stabilize the slope and minimize erosion. The temporary irrigation is described below:

Zone 2 (51 – 100 feet) would be irrigated with temporary above-ground irrigation lines utilized only during plant establishment using sprinkler heads that spray 360 degrees. When the plants have become established, the sprinkler heads will be adjusted to spray only 180 degrees toward the upper 50 feet of the slope.

With proper maintenance and management, the temporary irrigation within Brush Management Zone 2 as described above, does not conflict with the Adjacency Management Issues found in Section 7.5.2 of the City of Chula Vista MSCP Subarea Plan.

Otay Ranch GDP Objective:

Identify allowable uses within appropriate land use designations for areas adjacent to the Preserve.

Policy: All development plans adjacent to the edge of the Preserve shall be subject to review and comment by the Preserve Owner/Manager, the City of Chula Vista, and the County of San Diego to assure consistency with resource protection objectives and policies.

Policy: "Edge Plans" shall be developed for all SPAs that contain areas adjacent to the Preserve. The "edge" of the Preserve is a strip of land 100 feet wide that surrounds the perimeter of the Preserve. It is not a part of the Preserve - it is a privately or publicly owned and maintained area included in lots within the urban portion of Otay Ranch immediately adjacent to the Preserve.

Compliance:

The preparation of this Village 8 East Preserve Edge Plan fulfills the requirement to develop an "Edge Plan" for any SPA Plan Area adjacent to the Preserve and is subject to review and comment by the Preserve Owner/Manager, the City of Chula Vista and County of San Diego. Uses within the 100' Preserve Edge are either privately or publicly owned and maintained.

The Otay Ranch Community Park South located south of Village 8 East is identified as "Active Recreation" in the Chula Vista MSCP Subarea Plan and is not subject to the 100-foot Edge Plan requirements. However, the Community Park Concept Plan was developed and refined based on input from the Applicant's biologist to minimize/avoid impacts on sensitive resources located within the surrounding Preserve areas. See the Otay Ranch Community Park South Concept Plan (Exhibit

12). In addition to the Concept Plan, a cross section depicting the relationship between the community park, the Chula Vista Greenbelt Trail/Salt Creek Sewer Easement and the Otay River Valley is provided in Exhibit 13. The University Villages 2014 Biological Technical Report addressed/analyzed the park in relationship to the MSCP Adjacency Guidelines and provides mitigation measures to be applied during park master planning.

MSCP Adjacency Guidelines

All new development must adhere to the Adjacency Guidelines for drainage found on Page 7-25 of the Subarea Plan. In summary, the guidelines state that:

1. All developed areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the Preserve.

2. Develop and implement urban runoff and drainage plans which will create the least impact practicable for all development adjacent to the Preserve.

3. All development located within or directly adjacent to or discharging directly to an environmentally sensitive area are required to implement site design, source control, and treatment control Best Management Practices (BMPs).

Compliance:

To adhere to these MSCP guidelines, excessive runoff into the Preserve from adjacent irrigated slopes must be prevented. Erosion control BMPs must be installed prior to planting and watering to prevent siltation into the Preserve. The irrigation system installed on the slopes should have an automatic shutoff valve to prevent erosion in the event the pipes break. Irrigation schedules for the slopes adjacent to the Preserve must be evaluated and tested in the field to determine the appropriate water duration and adjusted, as necessary, to prevent excessive runoff.

A manual weeding program or the focused application of glyphosate shall be implemented on the manufactured slopes adjacent to the Preserve to control weeds that are likely to be encouraged by irrigation. Weed control efforts should occur quarterly or as needed, to prevent weeds on the manufactured slopes from moving into the adjacent Preserve. A qualified monitor shall check the irrigated slopes during plant establishment to verify that excessive runoff does not occur and that any weed infestations are controlled.

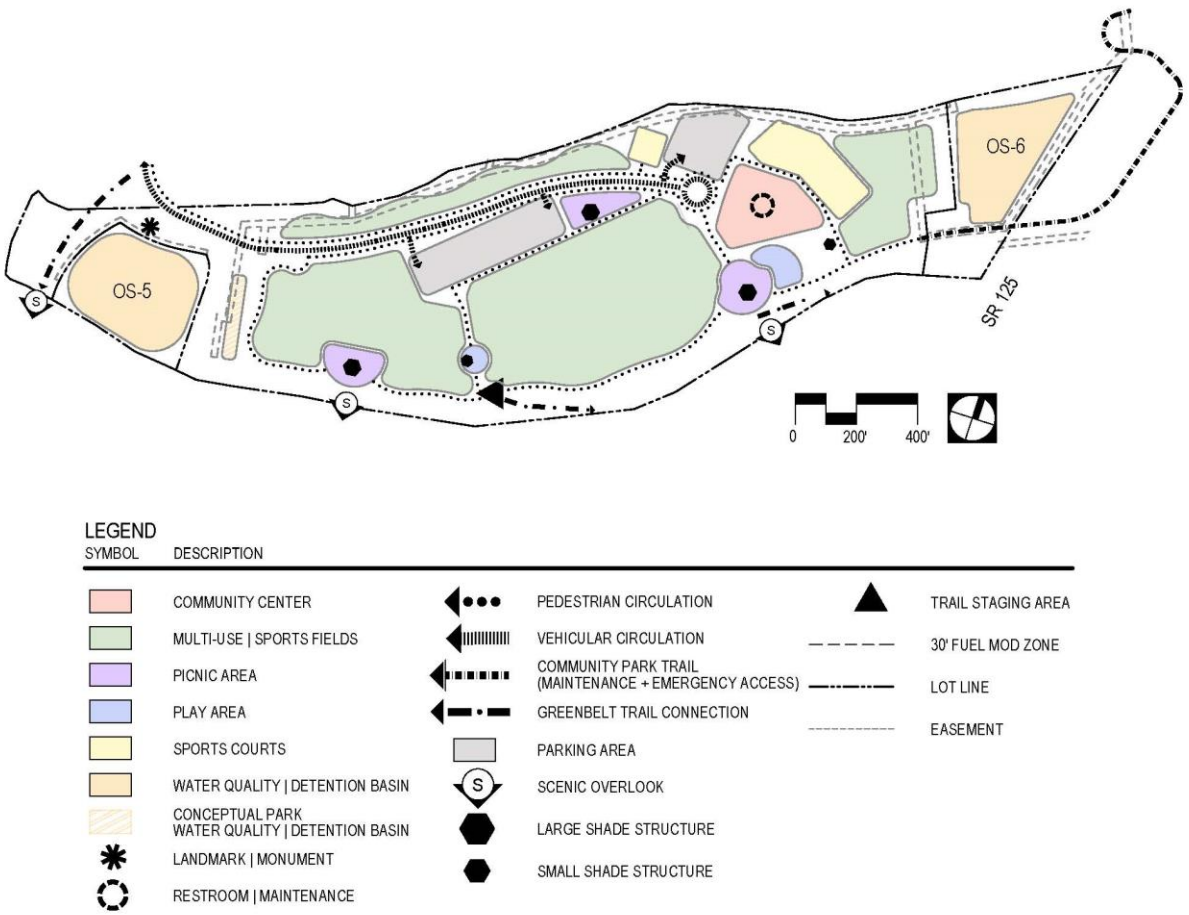


Exhibit 12: Otay Ranch Community Park South Concept Plan

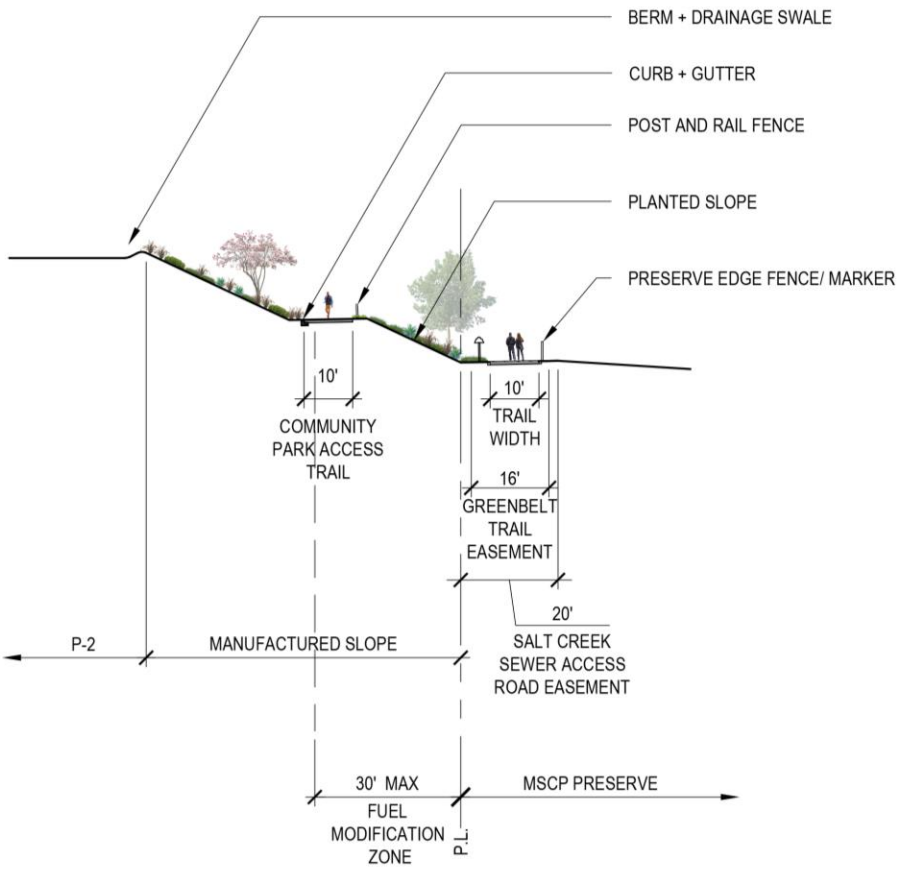


Exhibit 13: Cross Section at Community Park (P-2)

H. Restrict Access

Both the Otay Ranch RMP and Chula Vista MSCP Subarea Plan contain policies that restrict or limit access into the Preserve. These policies are discussed below:

Otay Ranch RMP Policy 6.5:

"Identify restricted use areas within the Preserve."

Standard: Public access may be restricted within and adjacent to wetlands, vernal pools, restoration areas, and sensitive wildlife habitat (e.g., during breeding season) at the discretion of the Preserve Owner/Manager.

Guidelines:

1. The Preserve Owner/Manager shall be responsible for identifying and designating restricted areas based on biological sensitivity..."

MSCP Policy:

"The public access to finger canyons will be limited through subdivision design, fencing or other appropriate barriers, and signage."

"Install barriers (fencing, rocks/boulders, appropriate vegetation) and/or signage in new communities where necessary to direct public access to appropriate locations."

Compliance:

Pursuant to the requirements of the MSCP Subarea Plan and RMP, the land plan has been designed to provide access to the preserve areas at designated locations, directing pedestrians to developed public trails within the Otay River Valley via designated public trails and roadways. The Village Design Plan provides wall and fence details for Village 8 East. Perimeter view fencing/post and rail fencing along the adjacent development parcel boundaries will be provided outside of the Preserve. In addition, a post and rail fence is planned along the down-slope edge of the Edge Trail within the Brush Management Zone. This property will be maintained by the Master HOA, with maintenance funded through a Homeowner's Association. A Preserve Edge Fence/Marker will be provided at the MSCP Boundary.

Access to the Brush Management Zone will be provided via locked gates for maintenance and fire protection activities only located every 1,000' along the southern edge of Village 8 East. Interim access control measures, such as fencing, signage, etc. will be provided within the development area to restrict public access until trail improvements within the Preserve are complete. The conceptual location of perimeter fencing at the Preserve Edge is depicted in Exhibit 14. Perimeter fencing is intended to provide a barrier between development and Preserve areas. The exact location and type of all proposed fencing will be depicted on the overall Village 8 East Landscape Master Plan and will be subject to review and approval by the Director of Development Services or Designee. Signage, identifying the MSCP Preserve and notifying the public of access restrictions, will be provided at key locations along the Preserve Edge. A detailed sign program for trails will be provided on the Village 8 East Landscape Master Plan and will be subject to review and approval by the Director of Development Services and the Public Works Director or designees.

Exhibit 14: Perimeter Wall (Barrier) at Preserve Edge Plan

ATTACHMENT "A"

VILLAGE 8 EAST BRUSH MANAGEMENT, PRESERVE EDGE & COMMUNITY PARK

APPROVED PLANT LIST – December 2023

Brush Management Modification (Zones 1 & 2)

Plant and seed material should be locally sourced to the greatest extent possible to avoid genetically compromising existing Preserve vegetation. Notes provided below must be adhered to and planting must be implemented in accordance with the Chula Vista Fire Department's fuel modification guidelines summarized in the Village 8 East Fire Protection Plan and 2023 Addendum.

Trees

Botanical Name	Common Name	BMZ	Notes
Cercis occidentalis	Western Redbud	1	
Heteromeles arbutifolia	Toyon	*	See Note 'A' below
Parkinsonia x 'Desert Museum'	Desert Museum Palo Verde	1	
Platanus racemosa	California Sycamore	1	
Prosopis chilensis	Chilean Mesquite	1	
Prunus ilicifolia 'ilicifolia'	Hollyleaf Cherry	1	
Quercus agrifolia	Coast Live Oak	1	
Quercus engelmannii	Englemann Oak	1	
Rhus lancea	African Sumac	1	See Note 'B' below

Shrubs, Cacti & Ground Covers

Agave attenuata	Foxtail Agave	1	
Atriplex semibacatta	Berry Saltbush	1	
Baccharis pilularis 'Pigeon Point'	Dwarf Coyote Brush	1 & 2	See Note 'C' below
Cotoneaster dammeri 'Lowfast'	Bearberry Cotoneaster	1	
Encelia californica	California Encelia	2	
Encelia farinose	California Encelia	1 & 2	
Epilobium californicum	California Fuschia	1 & 2	
Epilobium canum	California Fuschia	1 & 2	
Galvezia speciosa 'Fire Cracker'	Bush Snapdragon	2	
Heteromeles arbutifolia	Toyon	*	See Note 'A' below
Isomeris arborea	Bladder Pod	2	
Isocoma menziesii ' Manziesii'	Coast Goldenbush	2	
Iva hayesiana	San Diego Marsh Elder	*	
Limonium perezii	Statice	1	
Myoporum parvifolium 'Putah Creek'	Creeping Myoporum	1	
Nassella pulchra	Purple Needle Grass	2	
Opuntia littoralis	Coastal Prickly Pear Cactus	2	See Note 'E' below
Opuntia oricola	No Common Name	2	See Note 'E' below
Phyla nodiflora	Kurapia	1	
Rhamnus crocea	Redberry	*	
Rhus integrifolia	Lemonade Berry	*	
Rhus ovata	Sugarbush	*	
Salvia apiana	White Sage	2	See Note 'F' below
Simmondsia chinensis	Jojoba	*	See Note 'F' below
Trichostema lanatum	Woolly Blue Curls	*	

Botanical Name	Common Name	BMZ	Notes
Viguiera laciniata	San Diego Sunflower	2	
Yucca schidigera	Mojave Yucca	1 & 2	
Yucca whipplei	Our Lord's Candle	1 & 2	

Hydroseed Application

Plant and seed material should be locally sourced to the greatest extent possible to avoid genetically compromising existing Preserve vegetation

Acmispon americanus	Purshing's lotus	1
Acmispon heermannii	Heerman's lotus	1
Cryptantha intermedia	Common cryptantha	1
Eschscholzia californica	Coastal California Poppy	1
Helianthemum scoparium	Sun Rose	1
Lasthenia gracilis	California Goldfields	1
Lupinus bicolor	Miniature Lupine	1
Sisyrinchium bellum	Blue Eyed Grass	1
Corethrogyne filaginifolia	Sand Aster	2
Encelia farinosa	California Encelia	2
Ericameria palmeri	Palmer's goldenbush	2
Eriophyllum confertiflorum	Golden Yarrow	2
Galium angustifolium	Narrow leaved bedstraw	2
Hazardia squarrosa	Sawtooth goldenbush	2
Hemizonia fasciculata	Common Tarplant	2
Isocoma menziesii	Menzies' goldenbush	2
Iva hayesiana	San Diego Marsh Elder	*
Lasthenia californica	Dwarf goldfields	2
Lupinus excubitus	Grape soda lupine	2
Viguiera laciniata	San Diego Sunflower	2

Brush Management Notes:

*	Indicates larger shrubs that may be utilized in Zone 2, in cluster of no more than 400 SF
A	May be planted within Fuel Management Zone 1 up to 10% of the plant palette mix. No single mass shall exceed 400 sf. These shall be spaced such that the nearest shrub is no closer than the tallest shrub height (at maturity)
B	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
C	Only local native shrub species will be utilized. No cultivars shall be permitted.
D	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
E	Plants must be locally sourced
F	May be planted in limited quantities and must be properly spaced

Community Park P-2 Plant List

Trees

Arbutus 'Marina'	Marina Strawberry Tree
Brachychiton populneus	Bottle Tree
Cassia leptophylla	Gold Medallion Tree
Citrus species	Citrus
Cupaniopsis anacardioides	Carrotwood
Dracaena draco	Dragon Tree
Eriobotrya deflexa	Bronze Loquat
Geijera parviflora	Australian Willow
Jacaranda mimisifolia	Jacaranda

Botanical Name	Common Name	BMZ	Notes
Koelreuteria bipinnata	Chinese Flame Tree		
Lagerstroemia indica	Lavender Crape Myrtle		
Ligustrum lucidum	Glossy Privet		
Lophostemon confertus	Brisbane Box		
Magnolia grandiflora	Magnolia		
Metrosideros excelsa	New Zealand Christmas Tree		
Olea europea 'Willsonii'	Fruitless Olive		
Parkinsonia x 'Desert Museum'	Desert Museum Palo Verde		
Platanus acerifolia	London Plane Tree		
Platanus racemosa	California Sycamore		
Quercus agrifolia	Coast Live Oak		
Quercus engelmannii	Englemann Oak		
Quercus ilex	Holly Oak		
Rhus lancea	African Sumac		
Tipuana tipu	Tipu Tree		
Ulmus parvifolia 'Drake'	Drake Evergreen Elm		

Shrubs, Cacti, Ornamental Grasses & Ground Covers

Agave attenuata	Foxtail Agave		
Aloe species	Aloe		
Anigozanthos species	Kangaroo Paw		
Baccharis pilularis 'Pigeon Point'	Dwarf Coyote Brush		
Bougainvillea species	Bougainvillea		
Callistemon citrinus 'Little John'	Little John Bottlebrush		
Carex species	Sedge		
Ceanothus cultivars	Ceanothus		
Chondropetalum tectorum	Cape Rush		
Cistus species	Rockrose		
Clematis species	Evergreen Clematis Vine		
Cordyline australis 'Atropurpurea'	Bronze Dracena		
Cotoneaster dammeri 'Lowfast'	Bearberry Cotoneaster		
Crassula species	Crassula		
Dietes vegeta	Fortnight Lily		
Echium fastuosum	Pride of Madeira		
Encelia californica	California Encelia		
Encelia farinose	California Encelia		
Euonymus species	Euonymus		
Feijoa sellowiana	Pineapple Guava		
Festuca species	Fescue		
Ficus pumila	Creeping Fig		
Grevillea ‘Noellii’	Noel Grevillea		
Grewia occidentalis	Lavender Starflower		
Helichrysum petiolare 'Limelight'	Limelight Licorice Plant		
Hesperaloe species	Red Yucca		
Heteromeles arbutifolia	Toyon		
Ilex species	Holly		
Lantana species	Lantana		
Leucophyllum species	Texas Ranger		
Leymus condensatus 'Canyon Prince'	Canyon Prince Wild Rye		
Ligustrum japonicum 'Texanum'	Texas Privet		
Limonium perezii	Statice		

	Botanical Name	Common Name	BMZ	Notes
	Mahonia aquifolium	Oregon Grape		
	Mimulus cardinalis	Scarlet Monkeyflower		
	Muhlengurgia rigens	Deergrass		
	Myoporum parvifolium 'Putah Creek'	Creeping Myoporum		
	Myrtus communis	Myrtle		
	Nassella pulchra	Purple Needle Grass		
	Nephrolepis cordifolia	Sword Fern		
	Phormium species	New Zealand Flax		
	Phyla nodiflora	Kurapia		
	Pittosporum crassifolium 'Compactum'	Evergreen Pittosporum		
	Pittosporum tobira 'Wheeler's Dwarf'	Wheeler’s Dwarf Pittosporum		
	Podocarpus 'Icee Blue' (Columnar)	Icee-Blue Yellow-Wood		
	Podocarpus macrophyllus 'Maki'	Shrubby Yew Pine		
	Portulcaria afra	Elephant's Food		
	Portulcaria afra 'Minima'	Elephant's Mat		
	Prunus caroliniana	Carolina Cherry		
	Pyracantha species	Firethorn		
	Rhaphiolepis indica	Indian Hawthorn		
	Rhaphiolepis umbellata 'Minor'	Dwarf Yedda Hawthorne		
	Rhus integrifolia	Lemonade Berry		
	Rhus ovata	Sugarbush		
	Rosmarinus species	Rosemary		
	Salvia apiana	White Sage		
	Scaevola 'Mauve Clusters'	Mauve Clusters Pincushion Flower		
	Strelitzia nicolai	Giant Bird of Paradise		
	Strelitzia reginae	Bird of Paradise		
	Tecoma species	Esperanza		
	Tecomaria capensis	Cape Honeysuckle		
	Thuja occidentalis 'Degroots Spire'	Degroots Spire Arbovitae		
	Trachelospermum jasminoides	Star Jasmine		
	Tulbaghia violacea	Sweet Garlic		
	Westringia fruticosa 'Mundi'	Low Coast Rosemary		
	Wisteria sinensis	Chinese Wisteria		
Turf				
	Festuca Aquawise Sportslube Mix (from seed)	Sports Field Fescue Mix		
	Dwarf Tall Fescue (sod)	Marathon II		
	Cynodon dactylon ‘Bandera’	Bandera Bermuda Grass		

Hydroseed Application

Plant and seed material should be locally sourced to the greatest extent possible to avoid genetically compromising existing Preserve vegetation.

Acmispon americanus	Pursching's lotus
Acmispon heermannii	Heerman's lotus
Cryptantha intermedia	Common cryptantha
Eschscholzia californica	Coastal California Poppy
Helianthemum scoparium	Sun Rose
Lasthenia gracilis	California Goldfields

Botanical Name	Common Name	BMZ	Notes
Lupinus bicolor	Miniature Lupine		
Sisyrinchium bellum	Blue Eyed Grass		
Corethrogyne filaginifolia	Sand Aster		
Encelia farinosa	California Encelia		
Ericameria palmeri	Palmer's goldenbush		
Eriophyllum confertiflorum	Golden Yarrow		
Galium angustifolium	Narrow leaved bedstraw		
Hazardia squarrosa	Sawtooth goldenbush		
Hemizonia fasciculata	Common Tarplant		
Isocoma menziesii	Menzies’ goldenbush		
Iva hayesiana	San Diego Marsh Elder		
Lasthenia californica	Dwarf goldfields		
Lupinus excubitus	Grape soda lupine		