

San Mateo County 2001 Trails Plan San Mateo County California



Prepared for:

San Mateo County Parks and Recreation Commission
Environmental Service Agency
Parks and Recreation Division

Prepared by:

 **MHA** Environmental Consulting, Inc.



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(Clockwise from upper right)
Half Moon Bay State Beach Trail
Anza National Historic Trail
Skyline to the Sea Trail

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DEDICATION

To all those citizens who have worked for parks and trails in San Mateo County, and in memory of:

Barbara Lind, Division of Parks and Recreation secretary and secretary to the Trails Advisory Committee,

Lew Reed, Woodside horseman, a longtime supporter of public parks and trails in San Mateo County.

And especially, **Harry Dean**, who guided the Trails Advisory Committee along the trails and through the phases of this plan's revision from 1987-1991.

1.0: INTRODUCTION

1.1 Background

This document is the 2001 update of the San Mateo County Trails Plan. Trails planning on a county-wide level dates back nearly 25 years. The 2001 update is the third iteration of the Trails Plan.

In 1991, the San Mateo County Parks and Recreation Commission requested the Trails Advisory Committee to review two trail routes, the Bay Area Ridge Trail, and the California Coast Trail.

In 1995, the Trails Advisory Committee proposed an update to the 1990 Trails Plan. However, this plan was not adopted because of a lack of adequate environmental documentation. Since 1995, the Trails Advisory Committee has continued to refine the trail route proposals. The last revision to the Plan was made by the committee in 2001.

The 2001 Trails Plan is intended to fulfill the following objectives:

- Provide an updated Trails Plan with the latest desired alignments
- Link trails among existing and proposed trails in San Mateo County cities and parks, and to adjacent Counties
- Develop a set of policies and guidelines that can be used during detailed trail planning to ensure adequate trails are constructed within constraints presented by the environment
- Provide a plan for access for recreational and educational purposes to portions of the County where no access currently is available
- Improve access to and along the coast
- Provide recreational opportunities to area residents
- Provide commuter routes for alternative types of transportation (e.g., bicycles)

Approximately 304.45 miles of trails are proposed in the Trails Plan; 166.5 miles are existing trails. Two types of trails are included, County Trail Routes and Regional Trail Routes. The Trails Plan includes 28 County Trail Routes. Regional Trail Routes are routes of National, State, or regional recreational significance. These trails extend beyond the borders of San Mateo County. Four Regional Trail Routes are included in the Trails Plan:

- Bay Area Ridge Trail
- California Coast Trail
- Juan Bautista de Anza National Historic Trail
- Bay Trail

This update of the County Trails Plan is composed of five primary elements:

- **Proposed Trail Routes** — that when implemented will create a coordinated system of trails throughout San Mateo County
- **Inventory of Existing Trails** — an updated identification of the current trails in the County.
- **County Trails Policies** — a set of statements relating to the implementation of new, proposed trail routes illustrated on the County Trails Plan Map.
- **Design Guidelines** — specific directions that can be used as appropriate in designing individual trails.
- **Use and Management Guidelines** — specific directions that can be used as appropriate to determine the use and management of individual trails.

The proposed trail routes, when considered together, create a vision for a coordinated system of trails throughout San Mateo County. Trails Policies are a set of standards that should be followed during implementation of the Trails Plan. Design guidelines specify parameters for siting, designing, and constructing a new trail. Use and Management Guidelines specify how new trails should be maintained.

1.2 Trails Plan Objectives

The objectives of the Trails Plan are to:

- Provide an updated Trails Plan with the latest general alignments
- Provide connection between municipal trail systems and County trails and other jurisdictions trail systems.
- Link urban area residents with rural public lands of San Mateo County
- Develop a set of policies and guidelines that can be used during detailed trails planning
- Define environmental issues and mitigation measures to consider for trail planning, design, construction, and management
- Streamline future environmental review of specific trail proposals
- Provide access for recreation, transportation, and education benefits
- Improve access to and along the coast, San Francisco Bay and Ridgelines
- Provide trail-related recreation opportunities to County residents
- Provide an inventory of existing trails

2.0: SAN MATEO COUNTY TRAILS

2.1 Introduction

Regional, existing, and proposed trail routes in the County are illustrated on Figure 1. Trail numbers reflect whether the trail is regional (R), existing (E), or proposed (P). Table 2.1 is keyed to Figure 1 and identifies:

- Trail map key and name;
- Potential users that would likely be appropriate for the trail route given its general landscape setting and proximity to urban areas (note: determination of users would be made during the preparation of individual design and management plans as called for in the policies contained in Section 5);
- Trail beginning and ending points;
- Generalized estimates of total length;
- Generalized estimates of trail length completed; and
- Approximate percentage of trail completed.

2.2 Regional Trail Routes

Regional trail routes are those trails of National, State, or regional recreation significance. In all cases, Regional trail routes extend beyond the borders of San Mateo County. Regional Trails are generally envisioned as multiple-use trail routes in that they would accommodate a variety of trail users. In some instances, where topography and other physical constraints dictate, separate trails along the same general trail route may be needed to accommodate different users.

BAY AREA RIDGE TRAIL (R1)

This multi-use regional trail will extend for approximately 400 miles along the ridges surrounding San Francisco Bay. The alignment through San Mateo County begins at the San Francisco County line near Fort Funston, traverses Thornton Beach State Park and extends to the Santa Clara County line almost at Saratoga Gap, a distance of

approximately 46 miles. Approximately 34 miles of trails are completed in San Mateo County. The Bay Area Ridge Trail is endorsed by the Board of Supervisors of San Mateo County and all the cities therein.

The Bay Area Ridge Trail could pass through or connect the following existing public lands:

- Fort Funston
- Thornton Beach State Park
- Portions of the Golden Gate National Recreation Area (GGNRA)
- Milagra/Sweeney Ridge area
- San Bruno Mountain State and County Park
- Fairview Park West
- Burleigh Murray Ranch State Park
- City of San Francisco's Watershed lands
- Purisima Creek Redwoods Open Space Preserve
- The Phleger Estate lands of GGNRA
- Huddart County Park
- California Service Watershed and Bear Gulch Rd.
- Wunderlich County Park
- El Corte de Madera Open Space Preserve
- La Honda Creek Open Space Preserve
- Windy Hill Open Space Preserve
- Russian Ridge Open Space Preserve
- Skyline Ridge Open Space Preserve
- Long Ridge Open Space Preserve

SAN FRANCISCO BAY TRAIL (R2)

The San Francisco Bay Trail is a proposed regional bicycling and hiking route that will extend around the Bay's shoreline for about 400 miles. When complete, the Bay Trail would link 10 cities in San Mateo County. The Bay Trail route has been designated along the shoreline in seven city General Plans. About 58 miles of the Bay Trail are completed in San Mateo County.

From north to south, intermittent segments of the San Mateo County portion of the Bay Trail start along the shoreline at Sierra Point, Oyster Point, and Point San Bruno in the Cities of Brisbane and South San Francisco. A nearly 24 mile long segment exists extending south from Millbrae Avenue in the City of Millbrae to Mariner Park in Redwood Shores. Connecting Menlo Park's Bayfront Park at Marsh Road to the trail along Highway 84 approaching the Dumbarton Bridge, the Bayfront Expressway Trail is a paved, 2-mile trail for pedestrians and bicyclists paralleling the east side of the Bayfront Expressway from Marsh Road to Highway 84 at University Avenue in East Palo Alto. A short section of the Bay Trail goes south through the Ravenswood Open Space Preserve and continues to Bay Road in East Palo Alto. Virtually all of the completed portions of the Bay Trail accommodate hikers and bicyclists.

FIGURE 1

Figure 1
backside

Table 2.1: San Mateo County Trails

Trail	Potential Users	County Beginning Point	End Point	Estimated Length Proposed (miles)	Estimated Length Completed (miles)	% Complete
<i>Regional Trails</i>						
R1 Bay Area Ridge Trail	Partially Multi-use	(Fort Funston)San Francisco County	Near Saratoga Gap	46	34	74%
R2 San Francisco Bay Trail	Bike/Hike	Candlestick State Park	San Francisco Creek Palo Alto Baylands	35	17	49%
R3 California Coastal Trail	Multi-use	Thornton Beach	Ano Nuevo St. Reserve	50	4	8%
R4 Juan Bautista de Anza Historical Trail ¹	Hike-equestrian	Arastradero and Alpine Roads Intersection or El Palo Alto Tree El Camino Real Palo Alto	"Discovery Site" GGNRA near Sweeney Ridge Trail	63.4	63.4	100% ¹
TOTAL—Regional Trails Existing County Trails				194.4	118.4	60.1%
E1 Junipera Serra County Park to San Bruno City Park	Hiking	Junipera Serra County Park	San Bruno City Park	--	0.5	100%
E2 San Andreas Trail	Multi-use	Sawyer Camp Trail	2.1 miles south of San Bruno Ave.	--	2.1	100%
E3 Sawyer Camp Trail	Multit-use	Hillcrest Boulevard west of Millbrae	Crystal Springs Road west of San Mateo	--	6.0	100%
E4 Montara Mountain Trail	Hiking, Bike/Hike	San Pedro County Park	Montara State Beach	--	2.5	100%
E5 Crystal Springs Trail South	Hiking-equestrian	Highway 92 at eastern intersection with Highway 35	Northeastern entrance of Huddart County Park	--	6	100%
E6 Ralston Trail	Multi-use	Ralston Road bike path	Canada Road	--	1	100%
E7 Sheep Camp Trail	Multi-use	Eastern crest of San Francisco Watershed lands	Canada Road 0.25 miles south of Pulgas Temple	--	1	100%

2: SAN MATEO COUNTY TRAILS

Table 2.1: San Mateo County Trails (Continued)

Trail	Potential Users	County Beginning Point	End Point	Estimated Length Proposed (miles)	Estimated Length Completed (miles)	% Completed
E8 Edgewood Trail	Hiking-equestrian	Crystal Springs Trail	Edgewood park	--	0.5	100%
E9 Canada Trail	Multi-use	Crystal Springs Trail	Town of Woodside	--	3	100%
E10 Skyline Trail	Hiking-equestrian	South edge of Huddart County Park	Wunderlich County Park	--	5.1	100%
E11 Sand Hill Trail	Multi-use	Whiskey Hill Road	Santa Cruz Avenue	--	2.8	100%
E12 Lower Alpine Trail	Multi-use	Santa Cruz Avenue at Junipero Serra Boulevard	Alpine Road at Portola Road	--	5	100%
E13 Upper Alpine Trail	Multi-use	3 miles southwest of Portola Road	Page Mill Road	--	2.6	100%
E14 Basin Trail	Hiking-equestrian	Butano Ridge Loop Trail in Pescadero Creek County Park	Big Basin Redwoods State park at China Grade Road	--	5.5	100%
E15 Butano Fire Trail	Hiking-equestrian	Eastern Boundary Butano State Park	Big Basin Redwoods State Park at China Grade Road	--	4.5	100%
E16 Cascade Ranch Trail	—	Cascade Ranch entrance at Gazos Creek Road	Big Basin Redwoods State Park	2.4	2.4	100%
TOTAL—Existing County Trails					48.1	100%
Proposed County Trails						
P1 San Bruno Mountain State & County Park Trail Connections	Hiking	San Bruno Mountain State & County Park	a. To McClaren Park in S.F. b. To the Bay Trail c. To Milagra/Sweeney Ridge in GGNRA	Unknown	0	0%
P2 Valley View Trail Ext.	Hiking	San Pedro Valley County Park	Sweeney Ridge Trail	2	0	0%
P3 San Pedro Point Trail	Multi-use	Westside Montara Mountain	Southern Pacifica	1.1	0	0%

Table 2.1: San Mateo County Trails (Continued)

Trail	Potential Users	County Beginning Point	End Point	Estimated Length Proposed (miles)	Estimated Length Completed (miles)	% Complete
P4 San Andreas Trail Extension	Hiking-equestrian	North end of existing San Andreas Trail	North end of existing Sneath Lane Trail	0.4	0	0%
P5 Scarper View Trail	Multi-use	San Mateo Coast state beaches	Scarper Peak area San Francisco watershed	2.3	0	0%
P6 Junipero Serra County Park to San Francisco Watershed Trail	Hiking-equestrian	Junipero Serra County Park	San Andreas Trail or watershed trails (San Andreas and Sawyer Camp Trails)	0.4	0	0%
P7 Sawyer Camp Trail Alternate	Hiking-equestrian	Skyline Blvd (east of Crystal Springs Reservoir)	Sawyer Camp Trail	3.2	0	0%
P8 San Mateo Creek Trail	Multi-use	Skyline Blvd (vicinity of Crystal Springs and Bunker Hill Roads)	San Mateo City line	3	0	0%
P9 Crystal Springs Trail North	Multi-use	Entrance to Sawyer Camp Trail	Join Crystal Springs Trail south by Hwy 92	1.6	0	0%
P10 Highway 92 Trail	Multi-use	Interstate 280	Half Moon Bay	8	0	0%
P11 East Ridge Boundary Trail	Hiking-equestrian	East end of arched span of Ralston Trail Sheep Camp Trail	Sheep Camp Trail Pulgas Ridge Open Space Preserve	3.8	0	0%
P12 Crystal Springs Trail South Alternate	Hiking-equestrian	Highways 92 at eastern intersection with Highway 35	Northeastern entrance of Huddart County Park	6	0	0%
P13 Pipeline Trail	Multi-use	End of Edgewood Trail	Ravenswood Open Space Preserve	7	0	0%
P14 Burleigh Murray Ranch State Park to the Coast ²	Hiking-equestrian	Burleigh Murray Ranch State Park	Alt 1—Half Moon Bay State Beach Alt 2—Cowell Ranch State Beach	3	0	0%

2: SAN MATEO COUNTY TRAILS

Table 2.1: San Mateo County Trails (Continued)

Trail	Potential Users	County Beginning Point	End Point	Estimated Length Proposed (miles)	Estimated Length Completed (miles)	% Complete
P15 Burleigh Murray Ranch State Park to Purisima Creek	Hiking-equestrian	Upper Mills Creek	Purisima Creek Redwoods Open Space Preserve	1	0	0%
P16 Purisima Creek Trail Extension to Coast	Multi-use	Western end of Purisima Creek Redwoods Open Space Preserve trails	Cowell Ranch State Beach	6	0	0%
P17 Tunitas Creek Trails ²	Multi-use	a. Purisima Creek Redwoods Open Space Preserve (Bald Knob vicinity) b. S.W. corner of El Corte de Madera Open Space Preserve	Coast Trail (near Tunitas)	16	0	0%
P18 Skyline Trail Extension North	Hiking-equestrian	Continuation of Skyline Trail north from Huddart County Park	North entrance of Purisima Creek Redwoods Open Space Preserve	2.0	0	0%
P19 Harrington Creek Trail	Hiking-equestrian	South end of La Honda Creek Open Space Preserve	Sam McDonald County Park	10	0	0%
P20 Old Page Mill Road Trail	Hiking-equestrian	Skyline Ridge Open Space Preserve / Bay Area Ridge Trail	Portola Redwoods State Park	3.5	0	0%
P21 Slate Creek Trail	Hiking-equestrian	Long Ridge Open Space Preserve	Portola Redwoods State Park (eventually to have coastal connection)	1.5	0	0%
P22 Trails from Memorial County Park to Coast ²	Partially Multi-use	Memorial County Park	Memorial County Park, with two possible routes a. Pomponio Trail—this would follow Stage Road north to Pomponio St. Beach property (and then	8 to 9	0	0%

Table 2.1: San Mateo County Trails (Continued)

Trail	Potential Users	County Beginning Point	End Point	Estimated Length Proposed (miles)	Estimated Length Completed (miles)	% Complete ¹
P23 Bean Hollow Trail	Multi-use	Southwestern corner of Butano State Park	Bean Hollow State Beach west to the beach)	4.5	0	0%
P24 Pigeon Point Trail	Multi-use	Southwestern corner of Butano State Park	Pigeon Point b. Pescadero Beach Trail—this would continue to Pescadero St Beach	2.5	0	0%
P25 Butano to Cascade Ranch Trail	Multi-use	Southwestern corner of Butano State Park	Cascade Ranch trail system	1.25	0	0%
P26 Gazos Creek Trail	Multi-use	Gazos Creek State Beach	Big Basin Redwoods State Park	8	0	0%
P27 Old San Pedro Road	Multi-use	Highway 1 near Vallemar	Northern Montara			
P28 Half Moon Bay/Colma Road Trail	Multi-use	McNee Ranch State Park	Highway 1 at Pedro Point Headlands	0.5	0	0%
P29 Midcoast Foothill Trail	Multi-use	Highway 92	McNee Ranch State Park		0	0%
P30 Año Nuevo to Big Basin Redwoods State Park Trail	Hiking-equestrian	Coastal Trail	Chalks Road Trail in Big Basin Redwoods State Park	1	0	0%
TOTAL—Proposed County Trails				110.05	0	0%

¹The Juan Bautista de Anza National Historic Trail consists of the historical route (R4 on trails plan map) along El Camino Real and the recreational route. The recreational route comprises the following trail segments: part of Lower Alpine Road Trail, Portola Trail, Whiskey Hill Trail, Canada Trail, Crystal Springs Trails (South and North), Sawyer Camp Trail, Sawyer Camp Trail Alternate, San Andreas Trail and San Andreas Trail Extension North. These trails are described separately.
²Two alternate trails proposed for this route.

SOURCE: MHA Environmental Consulting, Inc.

CALIFORNIA COASTAL TRAIL (R3)

The California Coastal Trail would follow the San Mateo County coastline from Thornton Beach to Año Nuevo State Reserve. Primarily a bluff-top trail, this trail would connect numerous state and county parks and beaches along the coast, a distance of approximately 50 miles. Some sections of the Coastal Trail, primarily within the Half Moon Bay city limits, are already in place and suitable for multiple use. The Coastal Trail would connect with the Bay Area Ridge Trail by the existing Montara Mountain Trail, as well as by other trails proposed in this plan.

JUAN BAUTISTA DE ANZA NATIONAL HISTORIC TRAIL (R4)

The Juan Bautista de Anza National Historic Trail represents the route taken by Juan Bautista de Anza in 1775-76 on his expedition from present-day Mexico across deserts and mountains to found a colony for Spain at San Francisco. Anza led a contingent of 240 people and over 1000 head of stock.

The Anza party used a route that closely follows present-day El Camino Real in San Mateo County. The current volume of traffic along this route reduces the quality of the recreation experience and makes recreational use difficult. However, this route would be marked as the official historic trail.

There are two alternative recreation trail routes recommended that are consistent with the Comprehensive Management and Use Plan for the Juan Bautista de Anza National Historic Trail by the National Park Service. These are:

- For hikers and bicyclists use of the Bay Trail, extending from the Santa Clara County line north to the City and County of San Francisco boundary.
- For all users a route following existing Lower Alpine Trail west from the Santa Clara County line at Arastadero Road, thence through Portola Valley and Woodside along part of the Sand Hill Trail to the Cañada Trail, the Crystal Springs trails South and North, and the Sawyer Camp Trail in the San Francisco Watershed. At the northern end of the Sawyer Camp Trail the Anza Recreational Trail could follow the San Andreas Trail toward the Bay Area Ridge Trail on the proposed San Andreas Trail Extension (see Proposed County Trail P4). Equestrians, not wishing to use the Sawyer Camp Trail, could use the proposed Sawyer Camp Trail Alternate (see Proposed County Trail P7). Many segments of this recreational route area not suitable to bicyclists, but parallel road pavement or bike lanes are available as alternates.

2.3 County Trail Routes

County trail routes are those that in some way:

- Provide regional recreation and transportation benefits, such as providing key links for accessing rail stations, bus routes, or park-and-ride facilities;
- Provide for continuity between cities; generally crossing a city or passing through more than one city; or
- Provide convenient, long-distance trail loop opportunities by directly linking two or more Regional trails to create an urban trail network.
- Form convenient means of access and linkage from urban areas, developed areas and public lands within the county to the primary trail network of Regional Trails, or

- Offer ancillary benefits such as emergency access or egress, improved access for fire/vegetation management, provision for safety on county roads, or dispersion of existing trail use patterns that are consistent with county trail policies and guidelines.

Depending on local conditions, county trail routes may or may not be multiple-use trails.

EXISTING COUNTY TRAIL ROUTES

The following trails are existing County trails outside County parks that are extensions of County trails and/or connectors to Federal, State, Regional, County, or City parks.

Northern County Trails - Existing Between San Francisco County Line and Highway 92

- E1 Trail from Junipera Serra County Park to San Bruno City Park.** This trail extends from Junipera Serra County Park to San Bruno City Park downhill through an oak forest for 0.5 miles east. It is open to hikers only.
- E2 San Andreas Trail.** This trail extends 2.1 miles northward from the north end of Sawyer Camp Trail at Hillcrest Boulevard (just north of Millbrae Avenue) to 2.1 miles south of San Bruno Avenue at Skyline Boulevard. Views of San Andreas Lake and Sweeney Ridge enhance this relatively level trail on an easement through San Francisco Watershed lands. Paved for 1.5 miles from the Larkspur Avenue trailhead to its present northern terminus, it is open to bicyclists, hikers and equestrians. (See also San Andreas Trail Extension under Proposed County Trails).
- E3 Sawyer Camp Trail.** A historic route to the coast now closed to vehicular traffic, this trail extends for 6 miles south from Hillcrest Boulevard in Millbrae to Crystal Springs Road west of San Mateo along the east side of San Andreas and Lower Crystal Springs lakes. The wide trail is paved and open to bicyclists and hikers; equestrians occasionally use the unpaved edge of the trail. (See also Sawyer Camp Trail Alternate under Proposed County Trails).
- E4 Montara Mountain Trail.** Starting from San Pedro Valley County Park near the Visitor Center this trail (open to hikers only) zigzags up the park's west ridge. It joins the existing McNee Ranch Trail on the north face of Montara Mountain, on which hikers and bicyclists can go to the top of the mountain or descend through McNee Ranch State Park to Montara State Beach. The 2.5-mile Montara Mountain Trail makes an important link in a proposed east-west route from Sweeney Ridge to McNee Ranch State Park and the Coastal Trail.

Central County Trails - Existing Between Highway 92 and Highway 84

- E5 Crystal Springs Trail South.** Extending from the south side of Highway 92 at its eastern intersection with Highway 35 (Skyline Boulevard) to the northeast entrance of Huddart County Park, this 6-mile trail for hikers and equestrians passes the Filoli Estate. South of Edgewood Road it uses the Cañada Road/280 corridor, and then heads due west to Huddart County Park.
- E6 Ralston Trail (Interstate 280 Overpass Trail).** Connecting the bike path on Ralston Road with Cañada Road, this paved trail for hikers, bicyclists, and equestrians arches over the 10-lane Interstate 280. It makes an important 1-mile connection between the Bayside cities and the trails in the San Francisco Watershed.
- E7 Sheep Camp Trail.** This historic road winds 1 mile downhill from the eastern crest of the San Francisco Watershed lands, goes under Interstate 280 at the Vista Point

off-ramp and then wanders through meadows and beside oak-covered knolls. It joins Cañada Road 0.25 mile just north of the Pulgas Water Temple. Across Cañada Road is the Crystal Springs Trail South.

- E8 Edgewood Trail.** This 0.5-mile trail connects the Crystal Springs Trail south to Edgewood County Park and Natural Preserve. It begins at the junction of Cañada and Edgewood roads and goes northeast on the south side of Edgewood Road and under Interstate 280, where it enters Edgewood County Park. This trail is for hikers and equestrians only.
- E9 Cañada Trail.** Approximately 3 miles in length, this trail connects the Crystal Springs Trail South to the Town of Woodside. It begins 0.25 mile south of Edgewood Road and runs southeast under Interstate 280 following the alignment of Cañada Road. A paved trail for pedestrian and bicycle use on the eastside of Cañada Road begins at Jefferson Avenue and continues through the Town of Woodside to Woodside Road. Equestrians can use the unpaved, western side of Cañada Road.
- E10 Skyline Trail.** This trail connects Huddart County Park to Wunderlich County Park through the northwest corner of Teague Hill Open Space Preserve and the Bear Gulch watershed of the California Water Service Co. A segment of the Bay Area Ridge Trail, it begins at Richards Road in Huddart County Park and parallels Skyline Boulevard to the northwest entrance of Wunderlich County Park at Bear Gulch Road. This 5.1-mile trail is for hikers and equestrians.

Southern County Trails - Existing Between Highway 84 and the Santa Clara/Santa Cruz County Lines

- E11 Sand Hill Trail.** The Sand Hill Trail is a 2.8-mile segment of “the Loop” circling Portola Valley has bike lanes beside Sand Hill Road from Whiskey Hill Road to Santa Cruz Avenue. A short feeder trail leads from Sand Hill Road, along Lawler Ranch Road (west of highway 280) to an underpass under highway 280. Hikers and equestrians use an informal roadside path for 1.3 miles from Whiskey Hill Road to Interstate 280. Hikers continue 1.5 miles on paved sidewalks to Santa Cruz Avenue.
- E12 Lower Alpine Trail.** The Alpine Road Hiking, Riding and Bicycle Trail and the Dwight F. Crowder Trail form a 5-mile off-road path from the Santa Cruz Avenue/Junipero Serra Boulevard junction to the Alpine/Portola Road intersection. Part of “the Loop” is near Portola Valley, this relatively level and paved trail beside Alpine Road passes the Stanford golf course, creekside woods, open fields, housing tracts, and shopping centers. Bike lanes along Portola Road in Portola Valley join the Sand Hill Trail in Woodside; an equestrian trail exists on the eastside of Portola Road through Woodside.
- E13 Upper Alpine Trail.** This historic road, once the route to Pescadero and the coast, extends from a point 3 miles southwest of Portola Road, where a gate bars access to motor vehicles, to the trail’s junction with Page Mill Road, a distance of 2.6 miles. Open to hikers, bicyclists, and equestrians, it gains 1000 feet in elevation as it climbs besides Corte Madera Creek. It adjoins MROSD’s Coal Creek Open Space Preserve on its northwest flank and Montebello Open Space Preserve at the Page Mill Road Junction.
- E14 Basin Trail.** The Basin Trail extends southeast from the existing Butano Ridge Loop Trail in Pescadero Creek County Park to the park boundary, then proceeds south

along a narrow easement over private property to the boundary of Big Basin Redwoods State Park at China Grade Road. Since terms of the easement over private property prohibit bicycle use, the trail is open to hikers and equestrians only. The approximately 5.5-mile trail closes the last gap in a route that extends from Long Ridge Open Space Preserve through Portola State Park and Pescadero County Park to Big Basin State Park and on the coast at Waddell Beach.

- E15 Butano Fire Trail.** The Butano Fire Trail stretches from a point near the eastern boundary of Butano State Park lands to Big Basin Redwoods State Park, a distance of about 4.5 miles. The trail is on an easement that only permits hiking and equestrian use.
- E16 Cascade Ranch to Big Basin Redwoods State Park Trail.** Leaving the Cascade Ranch entrance at Gazos Creek Road, the Cascade Ranch to Big Basin Redwoods State Park Trail would connect to the Whitehouse Creek Trail on to Chalks Road Trail in Big Basin Redwoods State Park.

PROPOSED COUNTY TRAIL ROUTES

The following trail routes link with existing trails to create an interconnected County trail system as called for in the County General Plan (Policy 6.38 and 6.39). For reference the trails are organized, from north to south, into three geographic regions.

Northern County Trails - Between San Francisco County Line and Highway 92

- P1 Trail Routes from San Bruno Mountain State and County Park to Regional Trails.** Three trails linking San Bruno Mountain to the following regional trails are proposed:
- To the Bay Area Ridge Trail in San Francisco
 - To San Francisco Bay Trail from the East Peak of San Bruno Mountain to the City of Brisbane and thence across Highway 101 to the Bay Trail at Sierra Point
 - To the Ridge Trail in San Mateo County at Milagra Ridge in the Golden Gate National Recreation Area
- P2 Valley View Trail Extension.** From Valley View Trail in San Pedro Valley County Park, this trail extension would join the Sweeney Ridge Trail in the Golden Gate National Recreation Area, part of the Ridge Trail.
- P3 San Pedro Point Trail.** Generally following a historic route said to have been used by Indians and later by the Spanish and stagecoaches from coastal cities to San Francisco. The San Pedro Trail connects the west side of the Montara Mountain to areas in southern Pacifica.
- P4 San Andreas Trail Extension.** Beginning at the north end of the existing San Andreas Trail, this segment would connect with the north end of the existing Sneath Lane Trail that leads to the trail network in the Golden Gate National Recreation Area's Sweeney Ridge and to a segment of the Bay Area Ridge Trail. This trail would be open to hikers and equestrians.
- P5 Scarper View Trail.** The Scarper View Trail would connect the San Mateo Coast state beaches to the San Francisco Watershed lands in the vicinity of Scarper Peak.

- P6 Junipero Serra County Park to San Francisco Watershed Trail.** This trail route would provide access from Junipero Serra County Park and the cities of San Bruno and Millbrae to the San Andreas Trail in the Scenic and Recreation Easement of the San Francisco Watershed.
- P7 Sawyer Camp Trail Alternate.** A route between the section of Skyline Boulevard east of Crystal Springs Lake and Sawyer Camp Trail would accommodate equestrians and hikers. Somewhat shorter than the existing trail, it would begin at the north end of the Sawyer Camp Trail and terminate near Crystal Springs Road.
- P8 San Mateo Creek Trail.** A multiple-use trail route would run from Skyline Boulevard in the vicinity of Crystals Springs and Bunker Hill roads to the San Mateo city line. An on-street bicycle route would follow Crystal Springs Road with hikers following an off-street path alignment.
- P9 Crystal Springs Trail North.** This route would connect Sawyer Camp Trail and Crystal Springs Trail South, which begins south of Highway 92.

Central County Trails - Between Highway 92 and Highway 84

- P10 Highway 92 Trail.** Extending from Interstate 280 to Half Moon Bay, the Highway 92 Trail would connect the Ridge Trail to both the Coastside and Bayside communities. This highway corridor could accommodate a multi-use trail, as well as bike lanes on the highway.
- P11 East Ridge Boundary Trail.** Generally following the east boundary of the San Francisco Watershed, the East Ridge Boundary Trail would link the Ralston Trail and the Sheep Camp Trail to the trails in the Pulgas Ridge Open Space Preserve. This trail route would be suitable for hikers and equestrians. The East Ridge Boundary Trail would form the east side of a loop trip using the Crystal Springs Trail South; the trails in Edgewood County Park and Natural Preserve; Pulgas Ridge Open Space Preserve; the San Francisco Watershed; and the Ralston Trail.
- P12 Crystal Springs Trail South Alternate.** This route is a variation of the existing Crystal Springs Trail South (which runs from the intersection of Skyline Boulevard (Highway 35) and Highway 92 to Huddart County Park). From the Highways 35/92 intersection this trail route would proceed south to the Pulgas Water Temple, where it would join the existing Crystal Springs Trail South which continues to Huddart County Park.
- P13 Pipeline Trail.** The Pipeline Trail would extend from the current terminus of the Edgewood Trail at the Day Camp Parking Area in Edgewood County Park and Natural Preserve eastward to join the Bay Trail in East Palo Alto.
- P14 Burleigh Murray Ranch State Park to the Coast.** The Burleigh Murray Ranch State Park to the Coast Trail would extend from Burleigh Murray Ranch State Park to the California Coast Trail between Poplar County Beach and Cowell Ranch State Beach.
- P15 Burleigh Murray Ranch State Park to Purisima Creek Redwoods Open Space Preserve.** A trail route south from upper Mills Creek in Burleigh Murray Ranch State Park to trails along the north ridge of Purisima Creek Redwoods Open Space Preserve. The link would be approximately 1 mile and would be suitable for

hikers and equestrians.

- P16 Purisima Creek Trail Extension to Coast.** An extension from the western end of Purisima Creek Redwoods Open Space Preserve trails to the California Coastal Trail at Cowell Ranch State Beach.
- P17 Tunitas Creek Trails.** Two trail routes that would traverse the ridges on either side of Tunitas Creek, then join to reach the Coast generally along lower Tunitas Creek.
- P17a Purisima to the Coast via Irish Ridge.* A route from Purisima Creek Redwoods Open Space Preserve along the Tunitas Creek drainage to the California Coast Trail near the old settlement of Tunitas.
- P17b El Corte de Madera to the Coast.* Leaving the southwest corner of El Corte de Madera Open Space Preserve, this trail would generally follow along the east side of Tunitas Creek to join the Irish Ridge route and follow the alignment of Tunitas Creek to reach the Coast Trail as in Trail 17A.
- P18 Skyline Trail Extension North.** A continuation of the Skyline Trail northward from Huddart County Park to Purisima Creek Redwoods Open Space Preserve (for hikers and equestrians).
- P19 Harrington Creek Trail.** The Harrington Creek Trail would link La Honda Creek Open Space Preserve with Sam McDonald County Park.

Southern County Trails - Between Highway 84 and the Santa Clara/Santa Cruz County Line:

- P20 Old Page Mill Road Historic Trail.** The old Page Mill Historic Trail would begin at Skyline Ridge Open Space Preserve and the Bay Area Ridge Trail and travel west to Portola Redwoods State Park.
- P21 Slate Creek Trail.** The Slate Creek Trail would connect Long Ridge Open Space Preserve with Portola Redwoods State Park and ultimately, via the proposed Pomponio Trail, (Proposed Trail Route #22A), with the coast. It would replace the Doherty Ridge Trail listed on the 1977 County Trails Plan.
- P22 Memorial County Park to the Coast Trails.** Two routes extending an existing trail which starts in Portola Redwoods State Park via the existing Basin Trail and continues through Pescadero Creek County Parks to Memorial County Park. From Memorial County Park boundary, the route would follow two alignments. These are:
- P22a Pomponio Trail Extension.* The Pomponio Trail Extension connecting to Pomponio Road and Pomponio State Beach.
- P22b Pescadero Beach Trail.* The Pescadero Beach Trail would use the Honsinger Creek watershed to Pescadero State Beach.
- P23 Bean Hollow Trail.** The Bean Hollow Trail would extend from the southwestern corner of Butano State Park west to Bean Hollow State Beach.
- P24 Pigeon Point Trail.** The Pigeon Point Trail would travel from the southwestern corner of Butano State Park west to Pigeon Point.

- P25 Butano to Cascade Ranch Trail.** The Butano to Cascade Ranch Trail would travel south from the southwestern corner of Butano State Park to connect with the Cascade Ranch trail system.
- P26 Gazos Creek Trail.** The Gazos Creek Trail would generally follow the publicly-owned Gazos Creek Road to Big Basin Redwoods State Park. The road is paved from Highway 1 to the Big Basin Redwoods State Park boundary, the road is unpaved through the park. It is accessible to hikers, equestrians and bicyclists.
- P27 Old San Pedro Road Trail.** The Old San Pedro Trail would extend from Highway 1 near the community of Vallemar in Pacifica to McNee Ranch State Park. This multi-use trail would follow the Caltrans Right-of-Way. South of McNee Ranch State Park two trail alignments extend to northern Montara.
- P28 Half Moon Bay/Colma Road Trail.** The Half Moon Bay/Colma Road Trail would connect Highway 1 Near Pedro Point Headlands with the Gray Whale Cove Trail in McNee Ranch State Park.
- P29 Midcoast Foothills Trail.** The Midcoast Foothills Trail would connect the south boundary of McNee Ranch State Park with Highway 92 in Half Moon Bay to the south. It would follow the Caltrans Right-of-Way and the proposed Foothills Boulevard providing a multi-use inland alternative to the Coastal Trail.
- P30 Año Nuevo to Big Basin Redwoods State Park Trail.** From Highway One near Año Nuevo State Reserve, this trail connects to the Chalks Road Trail in Big Basin Redwoods State Park.

3.0: COUNTY TRAILS POLICIES

3.1 Introduction

Incorporated by reference in the 2001 San Mateo County Trails Plan Update are the policies of the San Mateo County General Plan, Chapter 6: Park and Recreation Resources, as these policies apply to trails.

The following specific policies are additions to and complement those in the General Plan. The General Plan policies combined with the policies listed below serve as a guide for county action directed toward implementation of the County Trails Plan Map (Figure 1). However, it is recognized that the County must defer direct responsibility for implementation of many trail route segments identified on the County Trails Plan Map to the jurisdictions in which they are planned. These include but are not limited to: GGNRA, California State Parks, Mid-Peninsula Regional Open Space District (MROSD), and cities. The County trails policies encourage coordinated decisions and actions by the cities, adjacent counties, and other trail providers to implement their particular segments of the Trails Plan in a way that is consistent with the County's vision. MROSD has developed additional policies and mitigation measures that will apply to trails designed and constructed within their jurisdiction.

3.2 Trail Policies

The General Plan policy headings below are followed by the related proposed Trails Plan policies. The proposed Trails Plan policies and implementation recommendations listed are organized by the policy headings and policy statements contained in the County General Plan, Chapter 6: Park and Recreation Resources. For ease of reference, General Plan policy numbers are used for related Trails Plan policies. However, since not every General Plan policy heading is referenced by the trail policies below, the number references to the General Plan are not necessarily consecutive.

ENVIRONMENTAL COMPATIBILITY (GENERAL PLAN POLICY 6.4)

Trails Plan Policies:

- 6.4.1 Locate, design and develop trail routes with sensitivity to their potential environmental, recreational and other impacts on adjacent lands, private property, and utilities. If the location of a trail is proposed in a sensitive habitat or wetland and trail use is not allowed by the San Mateo County Local Coastal Program or State Coastal Act, than an alternative trail route must be considered.
- 6.4.2 Levels-of-use and types-of-use on trails shall be controlled to avoid unsafe use conditions or risk severe environmental degradation.
- 6.4.3 Consider trails as development projects when on public or private land.
- 6.4.4 Review proposed trails for their potential environmental impacts in accordance with the California Environmental Quality Act.
- 6.4.5 Prior to trail development, ensure that all regulations and guidelines applicable to trails have been met.
- 6.4.6 Provide private property signs where appropriate and provide trail users information regarding private property rights in order to minimize public/private use conflicts and trespassing.
- 6.4.7 Locate trails to recognize the resources and hazards of the areas they traverse, and to be protective of sensitive habitat areas such as estuaries, wetlands, riparian corridors, erodible soils and other areas where sensitive species may be adversely affected.
- 6.4.8 Develop design guidelines to ensure that sensitive species and the habitats they rely on shall be protected, and where possible, enhanced by trail development and trail use.
- 6.4.9 Research of local, state, or federal government hazardous sites lists shall be conducted prior to the siting of trails and staging areas to determine if the area is a hazardous materials site. The following resources and agencies can be consulted to determine if a trail may be sited where hazardous materials occur:
 - Federal and state database information
 - Water Quality Control Board (San Francisco Bay Region)
 - San Mateo County Health Services Agency

If an area is found to be a hazardous materials site, the proposed trails and staging area will not be constructed on that site unless a remediation project has been implemented in accordance with state and local requirements.

ACCESS TO PARK AND RECREATION FACILITIES (GENERAL PLAN POLICY 6.5)

Trails Plan Policies:

- 6.5.1 Trail access should be provided for a range of user capabilities and needs (including persons with physical limitations) in a manner consistent with State and Federal regulations. The detailed design and management plans for each individual trail shall conform to the most current Americans with Disabilities Act Accessibility Guidelines for Outdoor Developed Areas where conditions permit. Trail maps and

guides shall indicate specific areas that are accessible for people with disabilities or wheelchair users.

- 6.5.2 Use of motorized vehicles on trails shall be prohibited, except for wheelchairs, maintenance, and emergency vehicles.
- 6.5.3 Design trail access points to ensure that off-road motorized vehicles do not use trails except for maintenance and emergency purposes or wheelchair access.
- 6.5.4 Develop trail design criteria that discourage inappropriate use of trails.
- 6.5.5 All trails should be marked. Signage should be standardized trail system-wide and should include guidelines, styles, and language (i.e., bilingual). Signed information should be provided on all trails to encourage responsible trail use. Appropriate markers should be established along historically significant trail routes.

LOCATE SUITABLE PARK AND RECREATION FACILITIES IN RURAL AREAS (GENERAL PLAN POLICY 6.10)

Trails Plan Policies:

- 6.10.1 During trail design, notify and coordinate with affected landowners to incorporate measures into trail design and related management policies to accommodate the privacy, security and liability concerns of the landowner and adjacent landowners. Such measures could include, but are not limited to: fencing or barrier planting that discourages trespassing; signage; scheduling of maintenance; patrol scheduling; and indemnity agreements to protect the landowner and affected landowners from liability for injuries to trail users.

MINIMIZE AGRICULTURAL LAND USE CONFLICTS (GENERAL PLAN POLICY 6.12)

Trails Plan Policies:

- 6.12.1 Clearly sign trails adjacent to active agriculture and provide trail users with information regarding property rights in order to minimize public/private use conflicts and trespassing.
- 6.12.2 Proposed trails shall either be located to avoid prime lands designated as suitable for agriculture (pasture lands or lands otherwise designated as agriculturally utilized) or traverse such lands in a manner that does not result in interference with agricultural activities or substantially reduce the agricultural potential of those lands. Operators of active agricultural activities shall be consulted to identify appropriate routes on lands they cultivate. The agricultural activities and the agricultural potential of traversed lands shall be protected and buffered from trail user impacts by means of distance, physical barriers (i.e. sturdy fences), or other non-disruptive methods.

DEVELOPMENT PLANS (GENERAL PLAN POLICY 6.13)

Trails Plan Policies:

- 6.13.1 Prior to developing any new trail route for public use, prepare design and development plans that ensure provision of services necessary to provide for the safety and support of trail users and affected

landowners. The plans shall respond to the unique safety and use concerns associated with highway safety, traffic operations, public transit, and businesses such as quality water source development, intensive agriculture, grazing, mining, railroads, and other industries. (see Design and Management Guidelines).

- 6.13.2** The San Mateo County Planning Department shall monitor proposed development, including General Plan amendments and zoning changes, and/or subdivision of properties with proposed trail routes. The Planning Department shall work with property owners and/or their representatives to ensure that the proposed trail routes are considered with all new development.
- 6.13.3** Work with interested groups (including but not limited to: affected landowner groups, trail interest groups (e.g., community groups, homeowner groups), and organizations representing persons with disabilities) in developing recommendations for specific trail design and development plans. The recommendations should be consistent with County, State and Federal design regulations (see Design and Management Guidelines), and be reflective of environmental and safety constraints, community needs, and the needs of the various user groups.

SITE PLANNING FOR PUBLIC AND PRIVATE FACILITIES (GENERAL PLAN POLICY 6.14)

Trails Plan Policy:

- 6.14.1** Where scenic roads are developed trails should be incorporated in their corridor. Historic roads should be preserved for trail routes.

PRIORITIZING FACILITY DEVELOPMENT (GENERAL PLAN POLICY 6.16)

Trails Plan Policies:

- 6.16.1** Trail routes shown on the County Trails Plan Map should be prioritized.
- 6.16.3** Maintain a list of priorities for trail acquisition and development through purchase, dedication, grant opportunities, or other means.

TECHNIQUES FOR PROVIDING PARK AND RECREATION FACILITIES (GENERAL PLAN POLICY 6.17)

Trails Plan Policies:

- 6.17.1** Indemnify all grantors of trail easements from liability for injuries suffered by users of the trail easements. The indemnity shall not apply to injuries caused by a landowner's willful or malicious conduct.
- 6.17.2** Make maps and trail guides available to the public to increase awareness of existing public trails.
- Publish and periodically update maps and guides to existing public trails.
 - Provide signage to indicate where trails are located.

TIMING ACQUISITION (GENERAL PLAN POLICY 6.24)

Trails Plan Policy:

- 6.24.1** The proposed County trail network should be implemented to take advantage of implementation opportunities as they arise.

ACQUISITION AND DEVELOPMENT PROGRAM (GENERAL PLAN POLICY 6.26)

Trails Plan Policies:

- 6.26.1** Trail acquisition responsibilities should be established on a project-by-project basis, and should be coordinated with all jurisdictions involved in each trail route.
- 6. 26.2** Make available to landowners, from whom trail easement dedications may be required or requested, information concerning laws that limit landowner liability.

PROTECTION, OPERATION, AND MAINTENANCE (GENERAL PLAN POLICY 6.29)

Trails Plan Policies:

- 6.29.1** Prior to developing any new trail route for public use, prepare management plans that ensure provision of protection, operation, and maintenance services necessary to provide for the safety and support of trail users and affected landowners. The plans shall respond to the unique safety and use concerns associated with highway safety, traffic operations, public transit and businesses such as quality water source development, intensive agriculture, grazing, railroads, and other industries. (see Design and Management Guidelines).
- 6.29.2** Assign responsibility for the maintenance of County-owned trails to the County Parks and Recreation Division unless other trail managing organizations agree to assume the responsibility for maintenance consistent with County policies and guidelines.
- 6.29.3** Condition the development of new trails for public use on the availability of adequate resources in conformance with adopted trail management guidelines (see Design and Management Guidelines).
- 6.29.4** Develop a monitoring program for use by the lead agency in evaluating current conditions and determining whether or not new trails or trail management programs (including maintenance, reconstruction, education, and use regulations) are effective in addressing user conflicts, safety issues, and environmental impacts; recommend changes if necessary.
- 6.29.5** Prior to developing new trail routes for public use, ensure that services and improvements necessary for the safety and support of the public using the trail are provided.

LIMITED CLOSING OF PARK AND RECREATION FACILITIES (GENERAL PLAN POLICY 6.32)

Trails Plan Policies:

- 6.32.1 Trails shall be temporarily closed when conditions become unsafe or environmental resources are severely impacted. Such conditions could include soil erosion, flooding, fire hazard, environmental damage, or failure to follow the specific trail management plan.
- 6.32.2 Based upon trail monitoring, develop guidelines for procedures to temporarily close trails and implement steps necessary to correct problems requiring closure.

USE OF VOLUNTEER PROGRAMS (GENERAL PLAN POLICY 6.34)

Trails Plan Policies:

- 6.34.1 The San Mateo County Trails Advisory Committee and Parks and Recreation Foundation shall work with the Parks and Recreation Commission to implement the Trails Plan.
- 6.34.2 Encourage volunteers and other groups to provide trail support services ranging from “trail watch” and clean-up activities to annual maintenance and construction.
- 6.34.3 Provide information and technical services to neighborhoods surrounding trails on how to establish adopt-a-trail groups.

COORDINATE SERVICES (GENERAL PLAN POLICY 6.35)

Trails Plan Policy:

- 6.34.1 Public improvement projects such as road widenings, bridge construction, and flood control projects that may impact existing or proposed trails should be designed to facilitate provision of shared use.

TRAIL SYSTEM COORDINATION (GENERAL PLAN POLICY 6.38)

Trails Plan Policies:

- 6.38.1 Support, encourage, and participate in the development of a system of trails that:
 - Link existing and proposed park, recreation and open space lands within San Mateo County and adjacent counties
 - Provide access from the urban area to these lands
 - Link park and recreation facilities on San Francisco Bay to those on the Pacific Coast
 - Connect to transit facilities
 - Give the public environmentally superior alternative transportation routes and methods
 - Close strategic gaps in non-motorized transportation routes
 - Offer opportunities for maintaining personal health

- Offer opportunities for outdoor education and recreation
 - Offer non-motorized access to significant destinations and points of interest
 - Could serve as emergency evacuation routes
- 6.38.2** The County trail system should be linked to provide for regional trails including the San Francisco Bay Area Ridge Trail, the San Francisco Bay Trail, the California Coast Trail, and the Juan Bautista de Anza National Historic Trail.
- 6.38.3** Trail planning, acquisition, development and management of trail routes shown on the County Trails Plan Map shall be coordinated among landowners and the various local, regional, state, and federal agencies with interests or jurisdiction related to the trail.
- 6.38.4** Coordinate with landowners whose property may be affected by proposed trails identified on the County Trails Plan Map to include the landowner's interests and concerns related to trail implementation when detail design and management plans are prepared.
- 6.38.5** Organize periodic meetings with adjacent cities and counties to coordinate the completion and management of regional trails which extend beyond County lines.
- 6.38.6** Whenever feasible, establish trails along historically significant trail routes.

CONSIDER ALTERNATIVE ACQUISITION METHODS (GENERAL PLAN POLICY 6.39)

Trails Plan Policies:

- 6.39.1** New trails would traverse either public lands or lie on easements negotiated or purchased from landowners.
- 6.39.2** Development projects proposed on lands that include a trail route as shown on the County Trails Plan Map may be required to dedicate and/or improve such trail to the extent it is roughly proportional to the impacts of the proposed development.
- 6.39.3** Accept and require, to the extent necessary to mitigate the impacts of the proposed development, trail and pathway easements, right-of-way dedications, and/or improvements as part of land development approvals in areas planned for inclusion in the county trail system.

COOPERATIVE AGREEMENT POLICY (GENERAL PLAN POLICY 6.43)

Trails Plan Policies:

- 6.43.1** In coordination with the County Parks and Recreation Division, encourage cities, public entities, organizations, and private citizens to implement the trails plan where practical and feasible.
- 6.43.2** Develop agreements for funding, interagency planning, acquisition, development, and maintenance of County trails and trail segments with cities where the city has adopted relevant provisions of the

County Trails Plan and is committed to implement and maintain a priority trail route.

ROLE OF THE FEDERAL GOVERNMENT (GENERAL PLAN POLICY 6.44), STATE DEPARTMENT OF PARKS AND RECREATION (GENERAL PLAN POLICY 6.45), AND THE MID-PENINSULA REGIONAL OPEN SPACE DISTRICT (GENERAL PLAN POLICY 6.47)

Trails Plan Policy:

- 6.44.1 As additional public open space is acquired in the County, determine whether additional Regional and County trail routes within the open space acquired should be identified on the County Trails Plan Map as proposed trail routes. Propose amendments to the County Trails Plan Map accordingly.

ROLE OF THE CITIES (GENERAL PLAN POLICY 6.46)

Trails Plan Policy:

- 6.46.1 Encourage the adoption of appropriate portions of the County Trails Plan Map as part of local general plans, parks and open space master plans, and public facilities plans.

ROLE OF THE PRIVATE SECTOR (GENERAL PLAN POLICY 6.48)

Trails Plan Policy:

- 6.48.1 The San Mateo County Planning Department should encourage private developers to incorporate trail routes identified on the County Trails Plan Map into their development project designs.

ROLE OF THE COUNTY: PROVISION OF COUNTY FACILITIES (GENERAL PLAN POLICY 6.49)

Trails Plan Policies:

- 6.49.1 Condition annexation by cities of lands that include trail routes shown on the County Trails Plan Map on the annexing jurisdiction's adoption of relevant portions of the County Trails Plan and implementation of trail routes.
- 6.49.2 Condition the authorization of County funds to cities or other managing agencies for implementing trails shown on the County Trails Plan Map on their ability to operate and maintain the trail based on applicable County policies and guidelines (see Design and Management Guidelines).
- 6.49.3 Negotiate conditions in annexation agreements to assure the implementation and maintenance of regional trail routes.

4.0: COUNTY TRAILS DESIGN AND MANAGEMENT GUIDELINES

4.1 Introduction

PURPOSE OF THE GUIDELINES

The Trails Plan Map (Figure 1) identifies hiking, horseback riding, and bicycling trails that support a myriad of trail-related uses. The system of trails identified on the Trails Plan Map crosses many types of terrain and passes through virtually every type of urban and rural land use in the County.

These guidelines provide direction to the County for the implementation of new trails, reworking existing trails, or maintenance of existing trails, recognizing that it would be impossible to anticipate every situation. **These guidelines are a general guide, rather than a specific formula for success. Each new trail route should be evaluated on a case-by-case basis, taking into account actual field conditions and trail route/land use relationships.**

Except as noted in the “Environmental Review Considerations” below, these guidelines are not absolutes. The guidelines provide detailed direction but also recognize the advantages of flexibility to trail suppliers, trail users, and property owners when discussing the site-specific implementation and administration of any trail route shown on the Trails Plan Map.

WHO USES THESE GUIDELINES

These guidelines are intended for use solely on trails constructed and maintained by the County of San Mateo, specifically the trail routes depicted on the County Trails Plan Map.

They specifically apply to all departments and staff of San Mateo County. Where references are made within several of the guidelines to cities, Special Districts, or Urban Service Areas, these guidelines are intended to be a model and point-of-reference for those entities. Each of the fifteen cities within the County and other special districts, and state or federal agencies are encouraged to reference and/or adopt these guidelines, where appropriate, as part of their own general plans for major trails.

These guidelines do not substitute or replace any existing codes, rules, or regulations of land managing and permitting agencies that may govern trail development, but are in addition to them. For example, the California Department of Fish and Game has jurisdiction over the bed and banks of creeks, streams, rivers, and seasonal drainages that have a defined channel. The U.S. Army Corps of Engineers has jurisdiction over creek channels and wetlands. Other agencies involved in creek and wetland permitting in San Mateo County include:

- City and County Planning and Building
- San Mateo County Environmental Health Services Divisions
- San Mateo County Flood Control Districts
- State Water Resources Control Board
- Regional Water Quality Control Board
- California Coastal Commission
- San Francisco Bay Conservation and Development Commission
- U.S. Fish and Wildlife Service
- U.S. National Marine Fisheries Service
- U.S. National Resources Conservation District

Necessary permits from these agencies will be obtained when trail alignments result in impacts to their jurisdictional areas.

RELATIONSHIP TO COUNTY TRAIL POLICIES

Some of the trail policies contained in Chapter 3 refer to “Design and Management Guidelines.” In this sense, the County trail policies reference the need for greater definition concerning the characteristics, use, and safety measures associated with County trails definitions that provide a level of understanding to trail users and property owners whose lands lie adjacent to County trails.

These trail design and management guidelines complement the policies set forth in Chapter 3 by identifying:

- How a specific trail route should be sited and designed based on a series of common trail conditions and landscape circumstances found in San Mateo County; and
- Once constructed, how a specific trail within the jurisdiction of San Mateo County should be managed to provide appropriate levels of maintenance, user safety, and the security and privacy of properties either adjacent to the trail or through which the trail crosses.

RELATIONSHIP TO ENVIRONMENTAL REVIEW CONSIDERATIONS

The Draft and Final Environmental Impact Report prepared under the California Environmental Quality Act (CEQA) for this Trails Plan update identified the need for selected trail design and management action policies to mitigate potentially significant

impacts. In instances where a guideline has been developed specifically to mitigate a potentially significant environmental impact, use of the words “shall” or “will” is made.

ORGANIZATION

The guidelines are divided into two sections:

- **Design Guidelines:** summarizing physical parameters for siting, designing, and constructing a new trail and the immediate trail setting. Design guideline reference numbers begin with “D.G.”
- **Management Guidelines:** summarizing the managerial parameters for siting and constructing a new trail. Management guideline reference numbers begin with “M.G.”

4.2 Design Guidelines

D.G. 1.0 TRAILS AND LAND USE COMPATIBILITY

D.G. 1.1 Location

Locate trails on existing public land, where feasible. On private property, locate trails along property lines where feasible and appropriate in conjunction with the use of the land to avoid unnecessarily crossing private properties.

D.G. 1.2 Setback

Trails shall be sited as far away from occupied dwellings as practical. Trails not within planned road rights-of-way within the County shall be set back a minimum distance from occupied dwellings in accordance with Table 4.1. Where setbacks specified in Table 4.1 are not feasible, potential noise and privacy impacts must be evaluated and reduced by use of berms, fencing, landscaping, and other feasible and compatible means, if necessary.

Table 4.1: Recommended Trail Setbacks

Selected Land Use Category¹	Recommended Trail Setback from Occupied Dwelling²
Urban Areas	25 feet
Residential	50 feet
Agriculture	50 feet
Timber Production	50 feet

¹ See Land Use Maps, San Mateo County General Plan

² As measured from the edge of the trail tread

D.G. 1.3 Boundaries

In areas where trails would pass adjacent land uses such as railroads and research and testing facilities, trail structures such as fences, barriers, and signing shall be used to deter trail users from leaving the trail and encountering unsafe conditions. Temporary trail closures shall be employed during intermittent operations, such as agricultural spraying, that would jeopardize the safety of an otherwise safe trail.

D.G. 1.4 Fencing

In areas where trail routes are immediately adjacent to private property, visible fencing may be employed to deter users from leaving the trail. Fencing may comply with requirements determined under the California Environmental Quality Act.

D.G. 1.5 Trail Alignment

Trail alignments should be selected that minimize intersections with motorized vehicles. Where feasible, trail grades should be separated from roadway grades at crossings. Where separated crossings are not possible, at-grade crossings must be designed to equally consider vehicular and trail user safety. New trail crossings at state highways shall be designed and located at existing signalized or stop-control intersections or where signalized or stop-controlled intersections will be provided concurrent with the new trail.

D.G. 1.6 Usage

Locate trails to promote and allow as many uses as possible, if feasible. At the intersections of multiple-use trails or where off-street bicycle trails intersect with on-street bicycle routes not at a road intersection, there should ideally be a 15-foot turning radius and 25-foot sight clearance between the two trail routes.

D.G. 1.7 Rail Line

Whenever new trails are developed within a rail line corridor, the trail alignment should be coordinated with local and regional transportation agencies and located so as not to preclude future multiple-use of the corridor for public mass-transit facilities if such facilities are included in City or County General Plans. The County shall coordinate with transit agencies to make public transit available to trail facilities.

D.G. 1.8 Parking

Regional staging areas are to be designed to adequately accommodate and manage anticipated parking use levels to prevent overflow parking onto local neighborhood streets and, ideally, be located on or near a public transit route.

D.G. 1.9 Noise

D.G. 1.9.1 Noise Reduction. Space shall be provided for berms and landscaping that shall be used where necessary to reduce noise from reaching sensitive receptors such as residences and to screen views to the staging area from surrounding areas.

D.G. 1.10 Trails and Environmental Protection

D. G 1.10.1 General

D.G. 1.10.1.1 Setting. Trail alignments and their associated facilities shall be sited and designed to be in harmony with surrounding natural and cultural settings and to retain natural appearances and values.

D.G. 1.10.1.2 Native Vegetation. Existing native vegetation shall only be removed as necessary to accommodate the trail clearing width.

D.G. 1.10.1.3 Barriers. Trail design shall include barriers to control trail use and prevent environmental damage. Barriers may include fences, vegetation, stiles, and/or fallen trees or branches.

D.G. 1.10.1.4 Biology. Biological resource assessments shall be conducted as specific trail routes outside of urban areas are implemented. Assessments shall be conducted by a qualified biologist and will include surveys for sensitive habitats and special-status species in the appropriate seasons. These assessments will include recommendations to align the trail to avoid impacts to sensitive habitats, special-status species, and heritage and significant trees. If any trail alignment may affect such resources, the County will consult with the appropriate agencies (e.g., the California Department of Fish and Game and the U.S. Fish and Wildlife Service, and National Marine Fisheries Service) to ensure that impacts will be avoided or mitigation is adequate. The report will also discuss the trail's consistency with relevant local and regional conservation and recovery plans, [i.e. the Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area (1998) and the San Bruno Mountain Area Habitat Conservation Plan (1983).] If mitigation is not feasible to a level of insignificance the trail should not be constructed at that location. Conflicts between trail alignment and resource protection shall be decided in favor of resource protection.

D.G. 1.10.1.5 Water Quality. Storm water quality Best Management Practices (BMPs) shall be required at staging areas to reduce potential water quality impacts.

D.G. 1.10.2 Special Status Species Habitats

D.G. 1.10.2.1 Sensitive Habitat. To the maximum extent feasible, trail alignments shall avoid impacts to sensitive habitats, including habitats for special status plants and animals. Trail alignments shall be evaluated on a case-by-case basis by a professional biologist to identify impact avoidance measures or mitigation measures for biotic impacts.

Consideration shall be given to:

- Rerouting the trail
- Periodic closures
- Revegetation prescriptions including replacement vegetation based on habitat acreage or plant quantity
- Buffer plantings
- Discrete barrier fencing that accommodates wildlife passage
- Other appropriate measures

Removal of native vegetation shall be avoided as much as possible. The appropriate resource agencies shall be contacted regarding any trail alignments that may impact sensitive habitats, special status species, or their habitat. Ensure plant replacement is native to the area.

D.G. 1.10.2.2 Trail Use. In special status species habitat areas, trail use levels shall be limited as appropriate to ensure protection of resources. Techniques for limiting use may include, but are not limited to:

- Physical access controls
- Seasonal or intermittent closures
- Exclusion of domestic pets

D.G. 1.10.2.3 Limit Access. Existing access routes and levees shall be used wherever possible to minimize impacts of new construction in special status species habitats.

D.G. 1.10.3 Washes, Freshwater Streams, Riparian Zones, Estuaries, and Wetlands

D.G. 1.10.3.1 Setback. When parallel to a stream or riparian zone, new trails shall be set back from the top of bank or from the outside edge of the riparian zone, whichever is greater as measured from the edge of the low flow channel, except where topographic, resource management or other constraints or management objectives make this not feasible or undesirable. Examples of possible exceptions to this requirement include where prime agricultural land would be converted to a non-agricultural use, at drainage crossings, passing under bridges, or where the trails are on an existing flood-control structure (e.g., levee or filled bank). Based upon advice of a professional biologist and with the concurrence of reviewing agencies, riparian setbacks may be adjusted on a case-by-case basis.

D.G. 1.10.3.2 Riparian Zone. Trails in foothill and mountain topography within 100 feet of a riparian zone shall be composed of natural materials or shall be designed (e.g. a bridge or boardwalk) to minimize disturbance and need for drainage structures and to protect water quality.

D.G. 1.10.3.3 Trail Crossings. Trail crossings of freshwater stream zones and drainages shall be designed to minimize disturbance, through the use of bridges or culverts, whichever is least environmentally damaging. Bridges and culverts shall be designed so that they visually and functionally blend with the environment and do not substantially interfere with the movement of native fish. Equestrian trail access shall be restricted at fish-bearing streams during critical times, such as during spawning, unless bridges and culverts are provided for horse use. Alternatively, bridges may be installed at fish bearing streams to allow equestrian crossing at all times.

D.G. 1.10.3.4 Native Vegetation. New endemic native vegetation should be planted, where practical, in the setback zone to complement existing riparian growth.

D.G. 1.10.3.5 Wetlands. Trails will avoid wetlands, including seasonal wetlands, seeps, springs, and farm ponds, wherever possible. Use of existing levees and levee maintenance roads is to be emphasized. A wetlands biologist will conduct reconnaissance level surveys of all trail alignments in areas with potential wetlands. Trails adjacent to wetland areas will be constructed so that trail fills avoid wetland impacts and minimum setbacks are allowed. A formal wetland delineation will be required along trails that may impact wetlands.

D.G. 1.10.3.6 Construction. Revegetation and/or enhancement will be undertaken where any sensitive habitat or special status species habitat will be disturbed or destroyed by trail construction. The design of an appropriate revegetation program shall fully compensate for the lost habitat, with no net loss of habitat functions and values. The revegetation program should be designed by a qualified biologist, submitted to the appropriate regulatory or trustee agency (usually the Department of Fish and Game) for approval and implemented prior to or concurrently with the trail development. At a minimum, the revegetation program will include a description of project impacts, mitigation calculations, the mitigation site, revegetation techniques, maintenance measures, a long-term monitoring program, and contingency measures. Riparian and wetland habitat impacts will typically be mitigated at a 3:1 ratio for high quality habitat areas and at lower ratios where lower habitat quality justifies a lower ratio. A lower ratio may also be justified if habitat mitigation is implemented prior to the occurrence of impacts. Mitigation will be based on in-kind replacement of impacted habitat with habitat

of equal or better biotic value. Native plant materials will be utilized in all mitigation work.

D.G. 1.10.4 Other Habitat Areas. In other areas (for example, serpentine grasslands), no specific setbacks are required; however, at a minimum, all proposed trail alignments should be reviewed in the field by a professional biologist prior to construction.

D.G. 1.10.5 Watersheds

D.G. 1.10.5.1 Reservoirs. Within watersheds of water supply reservoirs, new trails shall be sited to minimize potential water pollution and stream bank erosion. Equestrian trails shall not be sited parallel to “blue line” streams (as mapped on USGS 7.5 minute Quad maps) and major drainages (determined during the preparation of individual trail Design and Management Plan) within 150 feet of the bank of the streams. Where equestrian trails must cross streams or major drainages, the trail shall be sited perpendicular to the stream (to the extent allowed by topography and vegetation) through the 300-foot buffer zone (150 feet on each side) in order to minimize the distance of the trail within the buffer zone. This measure may be modified on a case-by-case basis upon the advice of a professional biologist or water quality specialist and the concurrence of the applicable water agency. (For example, where it makes sense to use the top of an existing levee or access road as an equestrian trail rather than constructing a new trail in otherwise undisturbed habitat, it may be possible to achieve the same objective of minimizing potential water pollution by sloping the top so that drainage would be directed toward the landward side of the levee rather than toward the water body.)

D.G. 1.10.5.2 Equestrian Trails. When siting new equestrian trails near water supply reservoirs, trails shall not be located within 150 feet of the high water line of the reservoir. This requirement may be modified on a case-by-case basis upon the advice of a professional biologist or water quality specialist and the concurrence of the applicable water agency.

D.G. 1.10.5.3 Water Quality Protection. For all new trail routes proposed in watersheds of water supply reservoirs, the County Parks and Recreation Division will consult with the applicable water agency regarding water quality protection. When specific reservoir watershed management plans are available, the guidelines for water quality protection shall be considered as applicable for trails proposed within those watersheds.

D.G. 1.11 Wildland Fire

Wildland fire hazards shall be considered when siting new trails. When individual trails are being designed, the CDF Fire Hazard Severity Zone Maps shall be reviewed as well as the Hazards Map in the County of San Mateo General Plan. Areas of high fire hazard shall be avoided or trail closure shall occur when fire hazard is deemed high.

D.G. 1.12 Hillside Scenic/Aesthetic Resources

Trail alignments across the face of open hillsides and near the top of ridgelines shall be sited to avoid creating permanent, noticeably visible lines on the existing landscape when viewed from points looking up at or perpendicular to the trail. Criteria to be used in siting the trail includes, but is not limited to: avoidance of excessive cuts in slopes that could not be effectively revegetated, presence of native soil to support revegetation, and placement of trail alignments on cross-slopes less than 45%.

D.G. 1.13 Areas of Geologic Instability

D.G. 1.13.1 Hazards. Appropriate surveys shall be conducted as part of trail route site planning to identify the occurrence of any potentially hazardous geologic conditions. Such areas shall be avoided or necessary construction design measures shall be incorporated into the design of the trail to assure that:

- Users will not be exposed to the identified hazard
- Trails would not contribute to increasing the degree or extent of instability
- Drainage from the trail would be routed away from the instability

D.G. 1.13.2 Sand Dunes. The proposed trails shall be designed to protect the integrity of sand dunes by routing trails around them instead of through them, whenever possible.

D.G. 1.13.3 Structures. Where structures are proposed, a geotechnical evaluation shall be conducted to identify engineering methods to reduce the potential for structural failure due to geological hazards

D.G. 1.14 Emergency Access

During trail implementation, planners should locate final trail alignments and access points to allow the trails to also serve as emergency access routes (for patrol or emergency medical transport). For more remote trails, emergency access points should be located, where feasible, approximately every two miles along the trail and provide either access for ground vehicles or helicopter landing sites.

D.G. 2.0 TRAIL SETTING

The public lands or easements that comprise the trail setting should provide width sufficient for management and/or buffer space from adjacent uses so as not to preclude the viability of those uses. Trail width shall be appropriate to the slopes that the trail transverses.

D.G. 2.1 Tread Width

D.G. 2.1.1 Tread. Trail tread width should be determined by amount and intensity of trail use and field conditions such as topography, vegetation and sensitivity of environmental resources.

D.G. 2.1.2 Multi-Use. Multiple-use, natural tread, double track trails should be designed as two-way paths. Where paved, the paved portions of a multiple-use trail should have an optimum width of 12 feet with a center stripe and minimal 2-foot, flush gravel shoulders, or clear space on each side of the trail.

D.G. 2.1.3 Hike Only. Single-purpose hiking trail treads should be an optimum of 4 feet wide.

D.G. 2.2 Trail Grades

Grades along trail treads should be held to a minimum. Grades of 10% or less are desirable; grades may be as great as but not greater than 12.5% without use of switchbacks. Where grades are steeper, long, gradual switchbacks should be used rather than short, steep switchbacks.

D.G. 2.3 Accessible Trails

D.G. 2.3.1 American With Disabilities Act (ADA). Where feasible, the design of County trails should recognize the intent of the ADA and should emphasize accessibility for everyone. To determine feasibility and the degree to which trails will be designed for whole-access, the overall terrain conditions of the area surrounding the trail route will be referenced. As an initial reference, three general accessibility zones are: Valley Floors/Coastal Plain; Foothills; and Canyon/Mountain. Table 4.2 defines the general slope characteristics of each of these zones. The final definition of each zone as it pertains to a particular trail alignment should be made only after detailed site investigations have been conducted.

Table 4.2: Ranking Access Conditions by Topography

Criteria	Accessibility Zone*		
	Easy Level of Access (e.g. Valley Floor / Coastal Plain)	Moderate Level of Access (e.g. Foothills)	Difficult level of Access (e.g. Canyon / Mountain)
Average slope conditions over entire area of trail	< 10%	11% - 20%	> 20%

D.G. 2.3.2 Access Zones. Table 4.3 summarizes trail design criteria to be used for the three general accessibility zones. All County trail routes in unincorporated County jurisdiction within the Valley Floor zone should be designed to meet guidelines presented in Table 4.3. Trails within Foothills and Canyon/Mountain zones should be evaluated on a case-by-case basis.

D.G. 2.4 Sight Distance

Clearing widths of Multiple-use and Limited-use trails involving bicycles should be developed to assure a 100-foot average sight distance where possible. If sight distances on curves, around hills or through densely vegetated areas are less than 100 feet, safety signs and reduced speed limits should be implemented.

D.G. 2.5 Trail Undercrossings

Where a County trail must pass under a highway bridge, sufficient vertical clear-space and security lighting should be provided to accommodate trail use. Where the provision of such spaces is not possible, alternative trail tread textures should be provided and safety signs placed on either side of the undercrossing involved to inform trail users of such conditions and the appropriate use conditions to follow, such as reducing speeds or dismounting.

Table 4.3: Summary of Accessible Design Guidelines for Trails¹

Design Component	Accessibility Zone		
	Easy Level of Access (e.g. Valley Floor)	Moderate Level of Access (e.g. Foothills)	Difficult level of Access (e.g. Mountains)
Maximum running slope	8.33%	10%	12.5%
Maximum interval of 5ft. by 5ft. passing areas ²	200 ft.	300 ft.	400 ft.
Optimum trail tread	5 ft. 0 in.	5 ft. 0 in.	4 ft. 0 in.
Rest area interval	600 ft.	900 ft.	optional
Maximum ramp gradient	10%	12.5%	15%
Maximum ramp rise to landing	48 in.	60 in.	72 in.
Maximum ramp run to landing	40 ft.	40 ft.	40 ft.
Maximum tread cross-slope	3%	5%	5%
Minimum vertical clearance ³	6 ft. 8 in.	6 ft. 8 in.	6 ft. 8 in.

¹ Based on guidelines developed in cooperation with Federal agencies.

² Not required if trail is a minimum of 5ft. in width

³ Single-purpose Hiking Trail Only

D.G. 2.6 Speed Limits

A speed limit of at least 15 miles per hour (MPH) shall be placed on all trails that permit cyclists and other trail uses (e.g., pedestrian, equestrian). Signs shall be located at trail entrances that indicate that a speed limit is in effect.

D.G. 3.0 TRAIL MATERIALS AND CONSTRUCTION PRACTICES

D.G. 3.1 Machine vs. Hand Construction

Machine construction of trails is the most cost-effective in the majority of cases. Hand construction of trails is preferable where opportunities for use of volunteer labor exist or where potential impacts to land or habitat resources, and subsequent mitigation costs, would be exacerbated by machine construction.

D.G. 3.2 Minimum Disturbance

Trail development should be limited to the minimum construction necessary to provide for public safety and to protect natural and cultural resources.

D.G. 3.3 Recycle

When feasible, recycled materials should be used in the construction of trails.

D.G. 3.4 Construction Limits

Visible evidence of trail construction should be confined to the trail clearing limit.

D.G. 3.5 Clearing Width and Height

The minimum horizontal clearing width from physical obstructions varies based on the type of trail but should be no less than 2 feet from the outer limits of the trail tread and shall be determined on a case by case basis to protect special natural features. Minimum vertical distance from overhanging branches shall be 12 feet on trails open to equestrian or bicycle use. Minimum vertical distance from overhanging branches shall be 7 feet on hiking trails. Clearing shall be determined on a case-by-case basis to protect special natural features.

D.G. 3.6 Trail Surfaces

D.G. 3.6.1 Material. Where feasible, trail treads should be of materials that provide a firm, smooth surface meeting the requirements of the most current Americans with Disabilities Act Accessibility Guidelines for Outdoor Developed Areas.

D.G. 3.6.2 Surface. Trail surfaces appropriate to intended use shall be selected so as to minimize runoff and erosion problems.

D.G. 3.7 Grading and Drainage

D.G. 3.7.1 Extent of Grading. No large-scale grading shall be used for trail construction unless in conjunction with a development project where large-scale grading has been found acceptable. Trail designs shall conform to the County Excavating, Grading, Filling, and Clearing Ordinance.

D.G. 3.7.2 Cut and Fill. The degree of cut allowed on a slope depends on the soil type, hardness, and surrounding natural resources. Ultimate cuts shall be contoured to blend with the natural slopes. Berms of earth, rocks or wood on the outside of the trail may be necessary. Steep areas shall be handled by limited terracing or building steps to avoid large-scale grading. Steps must be reinforced with stone or wood.

D.G. 3.7.3 Soil Disturbance. In order to reduce erosion and maintenance problems, disturbance of the soil surface shall be kept to a minimum. Only those rocks, stumps and roots, which interfere with safe passage, shall be removed.

D.G. 3.7.4 Drainage. Trail designs shall comply with the County Surface Runoff Management Plan. Surface water shall be diverted from trails by outsloping the trail tread between 1% and 3% where feasible. Where necessary, shallow ditches or water bars shall be used to divert water on running slopes greater than 5%. Other trail drainage techniques may include rolling dips, culverts, or ditches on sides of trails.

D.G. 3.7.5 Erosion Control Plans. Where a potential for significant soil erosion exists along a new trail alignment, specific erosion control plans shall be prepared by a qualified professional. Criteria to be used in determining the erosion potential includes: slope, soil type, soil composition and permeability and the relative stability of the underlying geologic unit. The erosion control plans shall comply with erosion control policies in the San Mateo County General Plan and San Mateo County Local Coastal Program.

D.G. 3.8 Planting of Disturbed Areas

Any cut or fill slopes shall be immediately reseeded or replanted with vegetation native to the general area. Criteria that would be used in selecting plant materials include, but is not limited to: if the species is indigenous to the area; habitat value; rate of growth; ultimate size; fire resistance; strength of root system; resistance to pests and diseases; aesthetic

characteristics; ability to provide shade; and ease of maintenance. Noxious plants (e.g. Yellow Star Thistle) shall be controlled within the trail setting.

D.G. 3.9 Cultural Resource Protection

D.G. 3.9.1 Avoidance. Trail design shall avoid adverse impacts to cultural resources. If avoidance is not possible, impacts should be minimized by avoiding areas where resources are known to exist.

D.G. 3.9.2 Buried Resources. During excavation of each individual trail, construction personnel shall look out for buried archaeological resources and human remains. If these resources are discovered, construction shall cease until a qualified archaeologist has studied the resources. All identified archaeological sites shall be evaluated using the California Register of Historical Resources criteria. The archaeologist shall identify the proper course of action to reduce project impacts on cultural resources. This shall include studying and reporting on the site to ensure that data is available to future researchers. Material recovered shall be donated to an appropriate repository for future study.

D.G. 3.9.3 Human Remains/ Objects. If prehistoric archaeological deposits that include human remains or objects considered “cultural items” according to the Native American Graves Protection and Repatriation Act are discovered during construction, the County Coroner and a qualified archaeologist shall be notified immediately and NAGPRA regulations shall be followed. If the remains are identified as American Indian, the tribe(s) shall be notified within one (1) working day and consultation will be initiated. Project activities may resume 30 days after notifying the tribe(s). Repatriation of the other categories of items (funerary objects, sacred objects, and cultural patrimony) shall be based on evidence that indicates whether or not the original acquisition of the object was from an individual that had the authority to separate the item from the tribal group.

D.G. 3.10 Air Quality

Parking surfaces and trail materials that reduce dust shall be used. Dust suppression techniques, including watering of disturbed lands, should be used in constructing multiple-use trails to reduce dust during trail construction.

D.G. 4.0 TRAIL STRUCTURES

D.G. 4.1 Drainage Crossings

Trails crossing creeks and drainages may require a bridge or culvert. Culverts should be as wide as the active stream channel so that they do not limit the ability of debris to pass. Sufficient depth and velocity of water through the culvert shall exist in fish-bearing streams for passage of species concerned. Regular maintenance of drainage structures shall be performed to ensure proper functioning. Structures over water courses shall be carefully placed to minimize disturbance and should be located 2 feet above the 100-year flood elevation or 2 feet above the Flood Hazard Flood Insurance Rate Map flood elevation. Erosion control measures shall be taken to prevent erosion at the outfalls of drainage structures. Flow of runoff will be directed to vegetated areas, away from creeks and drainages.

D.G. 4.2 Trail Bridges

Bridges should be a minimum of 5 feet wide on hiking and equestrian and a minimum of 8 feet wide on a natural-surfaced multiple-use trail. Bridges for paved multiple-use trails

should be a minimum of 12 feet wide and structurally capable of carrying maintenance vehicles. All bridges must have minimum 42-inch high railings when necessary. Fill over culverts should match the trail width. Bridge footings should be constructed outside of the stream's top of bank.

D.G. 4.3 Hardware

All trail structures should be designed to be as vandal-proof as possible. Rounded framing members and recessed bolt heads and other hardware should be used for safety.

D.G. 4.4 Access and Safety Barriers

D.G. 4.4.1 Types of Barriers. Bollards, boulders, logs, stiles and/or other structures shall be used to prevent motorized vehicles from entering trail routes at any crossing of a public road right-of-way or at any trail staging area. Barriers shall be designed to comply with the latest Americans with Disabilities Act (ADA) Accessibility Guidelines for Outdoor Developed Areas at trails designated as ADA accessible.

D.G. 4.4.2 Heavy Travel. Safety barriers, grade separations and/or barrier plantings shall be provided to protect trail routes along heavily traveled roads.

D.G. 4.4.3 Gates. Gates installed for trail users should be four to five feet in width and able to be easily closed or self-closing. Vehicle gates, where necessary, should be signed to prevent blockage.

D.G. 4.5 Signs

Sign standards should be adopted for all County trails, using the same style and design. International symbols should be used on signs. Six types of signs should be considered in management plans for each County trail (D.G. 4.3.1 through D.G. 4.3.6).

D.G. 4.5.1 Identity Signs. Identity signs portraying information to include: trail name and distance to staging areas; intersections with other trails; or other points of interest along the trail route. Identity signs should be located at all staging areas, County trails intersections, intersections with other trails as appropriate and intersections with roads.

D.G. 4.5.2 Use Signs. Use signs portraying which types of trail use are appropriate, permitted or prohibited on the trail; identifying accessibility conditions and other ADA related information; educating trail users about respecting private property along the trail route and/or any special land use considerations; and prohibiting smoking and the use of matches or lighters. Use signs should be placed at each trail staging area. Information about litter control shall be included in use signs located at trail access points.

D.G. 4.5.3 Safety Signs. Safety signs displaying warnings of upcoming underpasses, street intersections, blind curves, vertical clearances; providing information about water availability along the trail; advising trail users of the need to reduce speed or dismount and walk their bicycles or horses; warning of mountain lion or other wildlife danger; identifying any use restrictions during the fire season; and explaining the hierarchy of yielding among trail users. Safety signs should be located on an as-needed basis.

D.G. 4.5.4 Private Property Signs. Private property signs should be posted at regular intervals in conformance with legal requirements to remind the trail user not to trespass, as appropriate.

D.G. 4.5.5 Interpretive and Protective Signs. Interpretive and protective signs indicating natural resource or historical points of interest or sensitive areas. Signs would be designed to identify specimen habitat types and to be educational by briefly describing resource characteristics and values.

D.G. 4.5.6 Regional Signs. Regional signs posted at strategic locations to direct regional traffic to staging areas and away from neighborhoods which may have trail access points but do not have sufficient parking to accommodate such use.

D.G. 4.6 Potable Water

Potable water for trail users should be provided at least every 5 miles along Regional Trails, as appropriate. A sign shall be posted at every trail entrance stating that hikers must carry their own water when potable water is not available on the trail.

D.G. 4.7 Non-Potable Water

Water for domestic animals permitted on the trail should be provided at major access points and at an optimum of 5-mile intervals along Regional and Sub-regional Trails, as appropriate.

D.G. 4.8 Sanitary Facilities

Sanitary facilities should be located at all Parks and Open Space Preserves that are sited along the trail system and at staging areas, as appropriate. The facilities shall be sited to minimize maintenance cost and time. Where necessary, based on anticipated types and volumes of use, sanitary facilities shall be located along trails. The sanitary facilities shall be fully ADA accessible, if feasible.

D.G. 4.9 Benches

Benches for resting should be provided at regular intervals within 1/2 mile of formal staging areas along trail routes where use levels are significant, as appropriate. These should be located at places with aesthetic qualities, viewpoints and particularly at the end of any long uphill stretches. Benches shall meet the County of San Mateo Parks and Recreation Division standards. Any dedication shall be in conformity with the County Parks and Recreation Division gifts and donation policies.

D.G. 4.10 Stream Access Points

In the detail design of any trail alignment parallel to a freshwater stream zone or estuary, access points should be identified for environmental education and interpretive programs. Such access points should be sited in coordination with the California Department of Fish and Game, the U.S. Army Corps of Engineers, and other jurisdictional agencies as appropriate.

D.G. 4.11 Wildland Fire Suppression

During preparation of design plans for specific trail alignments, the County Parks Division shall:

- Review, in conjunction with the local fire protection services, available water sources.
- Select indigenous plant materials and/or seed mixes utilized at staging areas or along trails for their low maintenance and drought and fire resistant characteristics to minimize additional fuel available to wildland fires to the maximum extent feasible.

D.G. 4.12 Emergency Telephones

Along trails located outside of public parks and along trails that pass through more remote areas or private lands, consider installing solar-powered emergency telephones at regular intervals, as appropriate.

D.G. 4.13 Visual Screening

D.G. 4.13.1 Screening. Screening berms, perimeter planting, and parking area trees that provide a canopy shall be used at Regional Staging Areas to visually buffer views into the staging area from sensitive view points, or to block views of incompatible surrounding land uses as seen from inside the staging area.

D.G. 4.13.2 Structures. All structures proposed that are located in scenic corridors shall be screened using landscaping.

D.G. 4.13.3 Lighting. Any restrooms proposed as a part of any trail segment in a scenic corridor shall use warm toned security lighting in outside areas that is directed towards the ground.

D.G. 4.13.4 Utilities. All utilities constructed as a part of this project, within a State scenic corridor, shall be underground.

D.G. 4.14 Receptacles

D.G. 4.14.1 Placement. Trash receptacles shall be included at staging areas, where feasible, slightly beyond the beginning point of a trail where it is accessible to maintenance vehicles but not accessible to public vehicular access.

D.G. 4.14.2 Logistics. Recycling receptacles, which accept glass, metal, and plastic, shall be included at staging areas, where feasible. Recycled materials shall be picked up as part of the routine maintenance of the trails and brought to a recycling facility.

4.3 Use and Management Guidelines

M.G. 1.0 GENERAL

M.G. 1.1 Day-Use Management

County trails are intended for day-use only except when within a public road right-of-way or when a special permit is obtained. When requested by a property owner, gates that provide access to private property shall be securely locked by the managing agency to avoid unauthorized entry.

M.G. 1.2 Trails and Trail Users

The Parks and Recreation Division shall determine if an individual trail will be a Multi-Use trail. Trail uses should be consolidated where safe within the same trailway, depending on the steepness, available right-of-way, safety, user frequencies, and other conditions. A type of use on a trail may be prohibited for safety or environmental reasons, such as erosion and water quality.

M.G. 1.3 Trail Use Restrictions

M.G. 1.3.1 User Types. Where a trail is restricted to a particular type of user(s) because of conditions listed above, the trail shall be clearly designated as such and shall be equipped with use signs and appropriate barriers to discourage unauthorized use.

M.G. 1.3.2 Use Conditions. Where a trail, surrounding habitat or adjacent land use condition warrants special notice limiting trail use, the trail should be clearly designated and should be equipped with use signs and appropriate barriers to discourage unauthorized use.

M.G. 1.4 Trail Closure

M.G. 1.4.1 Reasons for Trail Closure. Reasons for trail closure include, but are not limited to:

- During trail construction, major repair, or seasonal maintenance
- During seasonal periods critical to special status species
- During high fire season
- When a hazardous condition exists (e.g. landslide or washout)
- During periods of flooding or extremely wet weather where such weather renders the trail dangerously slippery or where use would damage the trail
- Where overuse threatens resource values
- During special events
- Where adjacent land uses may present unsafe conditions that could affect the trail user.

M.G. 1.4.2 Authority. The Parks and Recreation Division shall decide whether or not to close County trails or trail segments.

M.G. 1.4.3 Notice. Notice of trail closure shall be posted at all trail entrances and staging areas. Barriers shall be placed at strategic points where feasible.

M.G. 1.4.4 Information. Trail closure notices should include: the reason(s) for the closure; what steps will be taken to correct the problem; an estimate of how long the trail will be closed; and a telephone number to call for further information.

M.G. 1.4.5 Posting Time. Trail closures should be as short in duration as possible; repairs shall be made as necessary. Prior to opening a closed trail, the Parks and Recreation Division shall make a determination that there is no danger to public safety or potential long-term adverse effects on the trail setting before noticing the trail as reopened.

M.G. 1.4.6 Criteria. The County Parks and Recreation Division shall collaborate with California Department of Forestry (CDF) on the specific criteria used for procedures to temporarily close trails during high fire conditions.

M.G. 2.0 PRIVATE ACCESS TO PUBLIC TRAILS

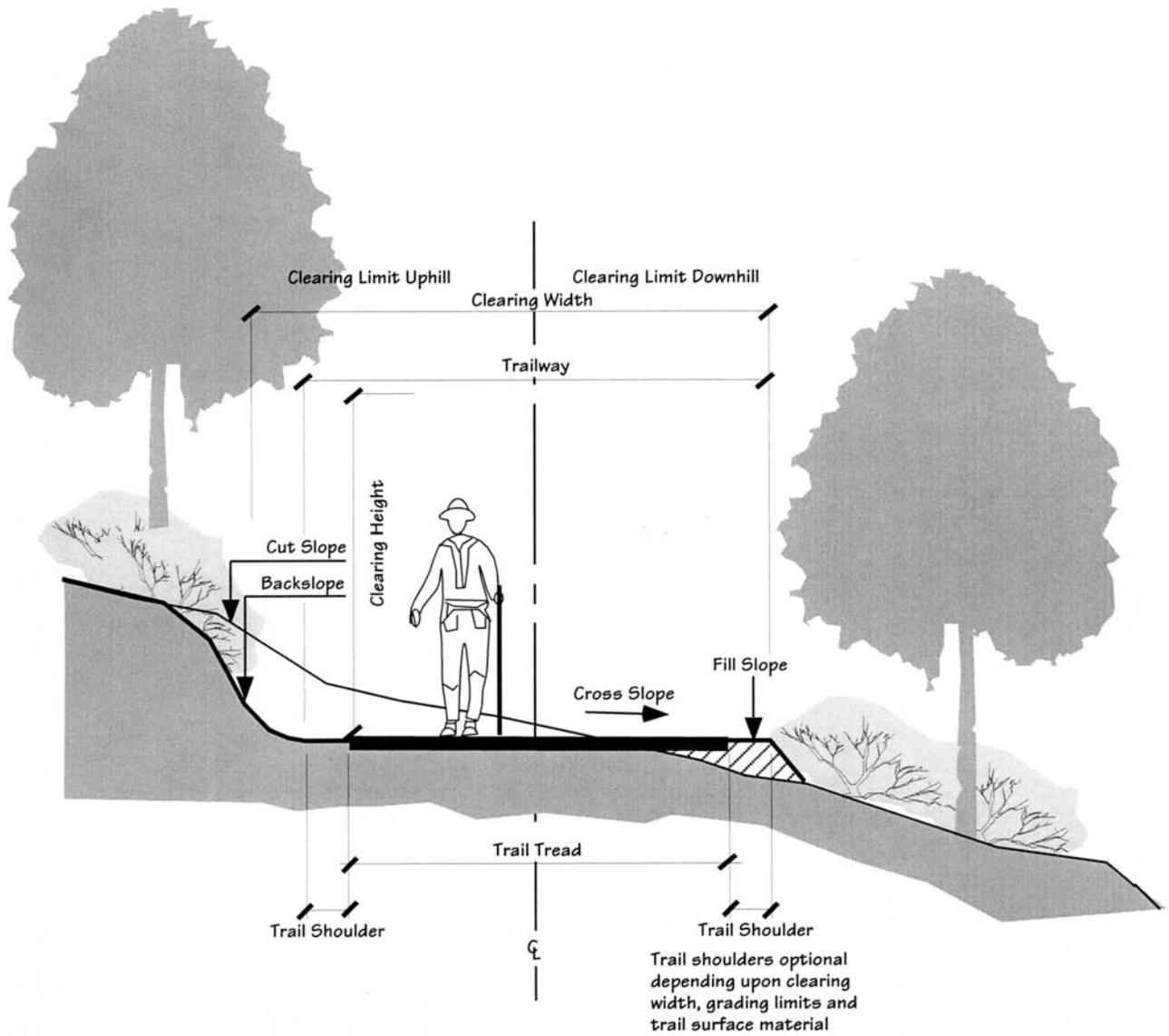
M.G. 2.1 No Private Access

Except where trail routes cross driveways and front entry walks, no private access to County trails or gates within continuous fencing/walls along the property line or trail easement shall be permitted without prior written authorization from the appropriate jurisdiction. A bond may be required by the jurisdiction in the amount of the actual costs to reclaim the private access in the event the access is abandoned.

M.G. 2.2 Criteria

Criteria that shall be used to evaluate the appropriateness of private access to public trails includes: visibility of access points; self-closing and self-locking features of gates; route

Figure 2: Trail Structure Terminology



alignment between the entry point and the actual trail tread; and maintenance costs and responsibilities.

M.G. 2.3 Access on Open Lands

In areas where public trails traverse private grazing or open lands, specific fence, gate and crossing designs will be determined with the individual property owner. Fences shall allow for wildlife passage and may be 6-foot chain link fence and/or barbed wire in conformance with State regulations governing such use. Wire, chain link or metal pipe gates shall be installed in the fence to allow perpendicular access across the trail corridor for the convenience of grazing tenants or for emergency and service vehicle access.

Underground cattle and game crossings at regular intervals may be used in conjunction with gates and cattle guards as determined by the needs of the individual landowner.

M.G. 3.0 TRAIL MONITORING AND MAINTENANCE

M.G. 3.1 Maintenance Inventory

A yearly inventory of all trail maintenance, including drainage, vegetation clearing, signing, surfacing, need for graffiti removal and repair of structures, gates, fences and barriers shall be done in early spring, prior to the heavy summer use period. Based on maintenance reports done yearly at the end of summer for winterizing trails, trails shall be subject to seasonal closures or repair as warranted.

M.G. 3.2 Re-Routing

Short segments of trails may require permanent re-routing due to landslides or other problems. The original route should be closed to use and reclaimed when a new route is provided. The managing agency should determine when such rerouting is necessary. Should re-routing involve private lands, all trail policies and guidelines shall apply.

M.G. 3.3 Vegetation Management

Vegetation growth should be cleared and obstacles should be removed where necessary. Good pruning practices along trails should be followed. Ground cover plants and low shrubs should not be cleared beyond the original construction stand. The construction stand shall be defined as the trail tread width plus 1-2 feet from (see Figure 2) each side of edge of the trail tread. Noxious plants (e.g. Yellow Star Thistle) should be controlled along the trail in a timely manner.

M.G. 3.4 Vegetation Removal

Within the trail clearing limit, understory grasses and herbaceous annuals should be controlled. Mechanical removal of undesirable vegetation from the trail path shall be employed whenever possible. Mechanical removal can include hand removal or grazing. If herbicides must be used, they shall be applied, handled, and disposed of according to applicable regulations and manufacturing instructions. These chemicals shall be applied by an individual who is properly trained in their application.

M.G. 3.5 Erosion Control and Damage Repair

Corrective work for drainage or erosion problems shall be performed within a reasonable period of time. Where necessary, barriers to prevent further erosion shall be erected until problems are corrected. Missing or damaged signs shall be replaced as soon as possible.

Damaged structures shall be repaired as soon as possible. Damaged gates, fences and barriers shall be replaced as soon as possible. Trails shall be closed if corrective work can not be accomplished within a reasonable time frame. If monitoring reveals that undesirable soil compaction is occurring in sensitive habitats adjacent to trails, erection of barriers or other appropriate measures (such as trail rerouting) will be employed as needed to discourage off-trail use.

M.G. 3.6 Paved Trails

Where trails are paved, they should be swept periodically to keep them free of loose gravel, debris, broken glass and other litter. Damaged pavement should be repaired or replaced as soon as possible. Unpaved trails should be regraded or resurfaced as necessary to maintain smooth surfaces and positive drainage.

M.G. 3.7 Unauthorized Trails

Brush or other aesthetically acceptable barriers should be used to cover illegal trails, abandoned trails, or shortcuts to discourage use until natural vegetation returns.

M.G. 3.8 Monitoring

Periodic monitoring of known sensitive habitats near trails will be conducted to determine if unacceptable soil compaction is occurring.

M.G. 3.9 Maintenance

Maintain trails in a manner that meets defensible space and fuel modification standards. The level of maintenance should be commensurate with the level of surrounding fuel loads/topography and adjacent values at risk and meet relevant standards in effect for the specific locale.

M.G. 4.0 TRAIL RECLAMATION

Should there be an event that necessitates the permanent closure of a County trail, a management program to rehabilitate the trailway will be developed. Such a program shall include disking and replanting the former trail to a natural condition, and sufficiently blocking the trail with barriers to effectively prohibit use. Management shall include monitoring of the trail to ensure that it returns to a natural condition without the intrusion of invasive exotic plants. Management shall also include design elements, maintenance, and monitoring to ensure that erosion is minimized.

M.G. 5.0 TRAIL PATROL AND INFORMATION

M.G. 5.1 Trail Maps

The Parks and Recreation Division has responsibility for revising existing park maps to show up-to-date trail information, and to develop new trail maps as trail routes are opened. Trail maps should also provide trail use rules, emergency information, trail accessibility, and other pertinent information.

M.G. 5.2 Trail Patrol

The Parks and Recreation Division has the responsibility for patrolling all County trails within the County's jurisdiction whether by division staff or by contract with related agencies or approved volunteer groups. On trails that extend outside the County's

jurisdiction, cooperative agreements with appropriate agencies should be formed for trail patrol and maintenance activities.

M.G. 5.3 Multi-Jurisdictional Patrols

Where multiple-use trails that pass through multiple jurisdictions permit, establish in conjunction with all jurisdictions involved, trail-specific patrols created by the participating agencies or through contracts with appropriate law enforcement agencies.

M.G. 5.4 Patrol Frequencies

Monitor trail use and activities to adjust patrol frequencies.

M.G. 5.5 Coordination with Sheriff's Office

Establish trail-specific patrols by Park Rangers and necessary contracts with the County Sheriff's Office for trails connecting parks that pass through private lands.

M.G. 5.6 Management for Private Lands

When preparing design and management plans for individual trail routes that connect County Parks and cross through private property in remote rural areas of the county, consider controlling and monitoring public use of the trail.

M.G. 5.7 Coordination with Other Agencies

Improve coordination between the County, MROSD, and other appropriate agencies with respect to implementing trail closures and regulations, preparation of detailed design and management plans for trails and formalization of mutual aid agreements. The staff of MROSD and other appropriate agencies provide services that in many situations can supplement the services that county park rangers provide.

M.G. 5.8 Trail Supervision

M.G. 5.8.1 Minimum Presence. All County trails shall be patrolled to assure that they are safe and usable.

M.G. 5.8.2 Use of Volunteers. To the extent feasible, certain aspects of trail supervision, such as trail safety and security, litter control and information and education should be accomplished by volunteers. In any event, county personnel shall inspect the trails as outlined above.

M.G. 6.0 STAFFING

Prior to developing and opening a County trail to public use, a trail management plan that identifies the level of personnel needed to operate and maintain the trail relative to the above guidelines shall be prepared by the lead agency(ies). Criteria to be included in the trail management plan include, but are not limited to:

- Anticipated types and levels of use
- Availability of police and fire protection
- Trail patrols
- Annual maintenance requirements
- Emergency management allotments
- Management agreements with other agencies

- Anticipated use of volunteers or contract services

Prior to opening for public use, funding for a trail's maintenance in terms of staffing and equipment will be identified and obtained for the first fiscal year of a new trail's operations.

M.G. 7.0 NOTICING REQUIREMENTS OF LANDOWNERS

Where a County trail route illustrated on the Trails Plan Map involves private property, formal notification shall be made to the landowner at the following times with regard to the County's interest in trails:

1. Upon submission of an application by the landowner to the County:
 - A proposed subdivision/cluster development
 - Minor land subdivisions
 - Architecture and site approvals
 - A use permit
2. Upon the initiation by the county of its intent to develop a trail within an existing trail easement across private property; and
3. When a Negative Declaration or Environmental Impact Report is prepared for a specific trail project pursuant to the California Environmental Quality Act.

Noticing would not be required for:

1. The construction of a single family residence or the remodeling thereof or addition thereto
2. The construction of a secondary dwelling unit or caretaker unit or guest house as may be permitted in the respective zoning district
3. The construction of outbuildings that are ancillary to a use permitted by right within a respective zoning district
4. Any minor use permit for a use that is directly or indirectly supportive of agriculture

5.0: REFERENCES

Thomas Reid Associates. 1983. *San Bruno Mountain Area Habitat Conservation Plan*.

U.S. Fish and Wildlife Service. 1998. *Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area*.



SAN MATEO COUNTY
TRAILS PLAN
1999 Revision

REGIONAL, EXISTING AND PROPOSED TRAILS

- Existing Trails
- ↔ ↔ Proposed Trails
- - - - Trails Included in 1990 Trails Plan
- San Mateo County Parks
- Other Open Space
- ⚓ Lighthouse
- 🏠 Youth Hostel

Note: See Table 1 in the 1999 San Mateo County Trails Plan for trail numbers.

APPENDIX A:

Members of the Trails Advisory Committee
and County Parks and Recreation Division Professional Staff

Table A-1: San Mateo County Trails Advisory Committee

John Allen

Patricia Barrett

Marj Burnfield

Betsy Crowder

Cheryl Davi

William Freedman

Nick Ramirez

Elly Hess

John Hernandez

Bob Emert

Donald MacIntosh

Ernst O. Meissner

Bobbi Petrov

Bruce Puckett

Jean Rushmore

Berry Stevens

Marian Vanden Bosch

Marilyn Walter

Table A-2: San Mateo County Parks and Recreation Division Professional Staff

Mary Burns
Director

Sam Herzberg
Senior Planner

Ron Weaver
Park Ranger IV

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments										
		Yes	No											
Design Guidelines														
D. G. 1.0 TRAILS AND LAND USE COMPATIBILITY														
<p>D. G. 1.1 Location</p> <p>Locate trails on existing public land, where feasible. On private property, locate trails along property lines where feasible and appropriate in conjunction with the use of the land to avoid unnecessarily crossing private properties.</p>	Land Use													
<p>D. G. 1.2 Setback</p> <p>Trails shall be sited as far away from occupied dwellings as practical. Trails not within planned road rights-of-way within the County shall be set back a minimum distance from occupied dwellings in accordance with Table G1.* Where setbacks specified in Table G1 are not feasible, potential noise and privacy impacts must be evaluated and reduced by use of berms, fencing, landscaping, and other feasible and compatible means, if necessary.</p>	Land Use													
<p>Table G1: Recommended Trail Setbacks</p> <table border="1"> <thead> <tr> <th>Selected Land Use Category¹</th> <th>Recommended Trail Setback from Occupied Dwelling²</th> </tr> </thead> <tbody> <tr> <td>Urban Areas</td> <td>25 feet</td> </tr> <tr> <td>Residential</td> <td>50 feet</td> </tr> <tr> <td>Agriculture</td> <td>50 feet</td> </tr> <tr> <td>Timber Production</td> <td>50 feet</td> </tr> </tbody> </table> <p>¹ See Land Use Maps, San Mateo County General Plan ²As measured from the edge of the trail head</p>					Selected Land Use Category ¹	Recommended Trail Setback from Occupied Dwelling ²	Urban Areas	25 feet	Residential	50 feet	Agriculture	50 feet	Timber Production	50 feet
Selected Land Use Category ¹	Recommended Trail Setback from Occupied Dwelling ²													
Urban Areas	25 feet													
Residential	50 feet													
Agriculture	50 feet													
Timber Production	50 feet													

* The tables in this guide have been numbered for use as a stand-alone section

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>D. G. 1.3 Boundaries</p> <p>In areas where trails would pass adjacent land uses such as railroads and research and testing facilities, trail structures such as fences, barriers, and signing shall be used to deter trail users from leaving the trail and encountering unsafe conditions. Temporary trail closures shall be employed during intermittent operations, such as agricultural spraying, that would jeopardize the safety of an otherwise safe trail.</p>	Land Use			
<p>D. G. 1.4 Fencing</p> <p>In areas where trail routes are immediately adjacent to private property, visible fencing may be employed to deter users from leaving the trail. Fencing may comply with requirements determined under the California Environmental Quality Act.</p>	Land Use			
<p>D. G. 1.5 Trail Alignment</p> <p>Trail alignments should be selected that minimize intersections with motorized vehicles. Where feasible, trail grades should be separated from roadway grades at crossings. Where separated crossings are not possible, at-grade crossings must be designed to equally consider vehicular and trail user safety. New trail crossings at state highways shall be designed and located at existing signalized or stop-control intersections or where signalized or stop-controlled intersections will be provided concurrent with the new trail.</p>	Transportation			
<p>D. G. 1.6 Usage</p> <p>Locate trails to promote and allow as many uses as possible, if feasible. At the intersections of multiple-use trails or where off-street bicycle trails intersect with on-street bicycle routes not at a road intersection, there should ideally be a 15-foot turning radius and 25-foot sight clearance between the two trail routes.</p>	Transportation			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>D. G. 1.7 Rail Line</p> <p>Whenever new trails are developed within a rail line corridor, the trail alignment should be coordinated with local and regional transportation agencies and located so as not to preclude future multiple-use of the corridor for public mass-transit facilities if such facilities are included in City or County General Plans. The County shall coordinate with transit agencies to make public transit available to trail facilities.</p>	Transportation			
<p>D. G. 1.8 Parking</p> <p>Regional staging areas are to be designed to adequately accommodate and manage anticipated parking use levels to prevent overflow parking onto local neighborhood streets and, ideally, be located on or near a public transit route.</p>	Transportation			
<p>D. G. 1.9 Noise</p>				
<p>D. G. 1.9.1 Noise Reduction. Space shall be provided for berms and landscaping that shall be used where necessary to reduce noise from reaching sensitive receptors such as residences and to screen views to the staging area from surrounding areas.</p>	Noise			
<p>D. G. 1.10 Trails and Environmental Protection</p>				
<p>D. G. 1.10.1 General</p>				
<p><i>D. G. 1.10.1.1 Setting.</i> Trail alignments and their associated facilities shall be sited and designed to be in harmony with surrounding natural and cultural settings and to retain natural appearances and values.</p>	Aesthetics			
<p><i>D. G. 1.10.1.2 Native Vegetation.</i> Existing native vegetation shall only be removed as necessary to accommodate the trail clearing width.</p>	Biology			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<i>D. G. 1.10.1.3 Barriers.</i> Trail design shall include barriers to control trail use and prevent environmental damage. Barriers may include fences, vegetation, stiles, and/or fallen trees or branches.	Land Use, Aesthetics			
<i>D. G. 1.10.1.4 Biology.</i> Biological resource assessments shall be conducted as specific trail routes outside of urban areas are implemented. Assessments shall be conducted by a qualified biologist and will include surveys for sensitive habitats and special-status species in the appropriate seasons. These assessments will include recommendations to align the trail to avoid impacts to sensitive habitats, special-status species, and heritage and significant trees. If any trail alignment may affect such resources, the County will consult with the appropriate agencies (e.g., the California Department of Fish and Game and the U.S. Fish and Wildlife Service, and National Marine Fisheries Service) to ensure that impacts will be avoided or mitigation is adequate. The report will also discuss the trail's consistency with relevant local and regional conservation and recovery plans, [i.e. the Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area (1998) and the San Bruno Mountain Area Habitat Conservation Plan (1983).] If mitigation is not feasible to a level of insignificance the rail should not be constructed at that location. Conflicts between trail alignment and resource protection shall be decided in favor of resource protection.	Biology			
<i>D. G. 1.10.1.5 Water Quality.</i> Storm water quality Best Management Practices (BMPs) shall be required at staging areas to reduce potential water quality impacts.	Hydrology			
D. G. 1.10.2 Special Status Species Habitats				
<i>D. G. 1.10.2.1 Sensitive Habitat.</i> To the maximum extent feasible, trail alignments shall avoid impacts to sensitive habitats, including habitats for special status plants and animals. Trail alignments shall be evaluated on a case-by-case basis by a professional biologist to identify impact avoidance measures or mitigation measures for biotic impacts. Consideration shall be given to:	Biology			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<ul style="list-style-type: none"> • Rerouting the trail • Periodic closures • Revegetation prescriptions including replacement vegetation based on habitat acreage or plant quantity • Buffer plantings • Discrete barrier fencing that accommodates wildlife passage • Other appropriate measures <p>Removal of native vegetation shall be avoided as much as possible. The appropriate resource agencies shall be contacted regarding any trail alignments that may impact sensitive habitats, special status species, or their habitat. Ensure plant replacement is native to the area.</p>				
<p><i>D. G. 1.10.2.2 Trail Use.</i> In special status species habitat areas, trail use levels shall be limited as appropriate to ensure protection of resources. Techniques for limiting use may include, but are not limited to:</p> <ul style="list-style-type: none"> • Physical access controls • Seasonal or intermittent closures • Exclusion of domestic pets 	Biology			
<p><i>D. G. 1.10.2.3 Limit Access.</i> Existing access routes and levees shall be used wherever possible to minimize impacts of new construction in special status species habitats.</p>	Biology			
<p>D. G. 1.10.3 Washes, Freshwater Streams, Riparian Zones, Estuaries, and Wetlands</p>				
<p><i>D. G. 1.10.3.1 Setback.</i> When parallel to a stream or riparian zone, new trails shall be set back from the top of bank or from the outside edge of the riparian zone, whichever is greater as measured from the edge of the low flow channel, except where topographic, resource management or other constraints or management objectives make this not feasible or undesirable.</p>	Biology, Hydrology, Land Use, Agriculture			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
Examples of possible exceptions to this requirement include where prime agricultural land would be converted to a non-agricultural use, at drainage crossings, passing under bridges, or where the trails are on an existing flood-control structure (e.g., levee or filled bank). Based upon advice of a professional biologist and with the concurrence of reviewing agencies, riparian setbacks may be adjusted on a case-by-case basis.				
<i>D. G. 1.10.3.2 Riparian Zone.</i> Trails in foothill and mountain topography within 100 feet of a riparian zone shall be composed of natural materials or shall be designed (e.g. a bridge or boardwalk) to minimize disturbance and need for drainage structures and to protect water quality.	Biology, Hydrology			
<i>D. G. 1.10.3.3 Trail Crossings.</i> Trail crossings of freshwater stream zones and drainages shall be designed to minimize disturbance, through the use of bridges or culverts, whichever is least environmentally damaging. Bridges and culverts shall be designed so that they visually and functionally blend with the environment and do not substantially interfere with the movement of native fish. Equestrian trail access shall be restricted at fish-bearing streams during critical times, such as during spawning, unless bridges and culverts are provided for horse use. Alternatively, bridges may be installed at fish bearing streams to allow equestrian crossing at all times.	Biology, Hydrology, Aesthetics			
<i>D. G. 1.10.3.4 Native Vegetation.</i> New endemic native vegetation should be planted, where practical, in the setback zone to complement existing riparian growth.	Biology			
<i>D. G. 1.10.3.5 Wetlands.</i> Trails will avoid wetlands, including seasonal wetlands, seeps, springs, and farm ponds, wherever possible. Use of existing levees and levee maintenance roads is to be emphasized. A wetlands biologist will conduct reconnaissance level surveys of all trail alignments in areas with potential wetlands. Trails adjacent to wetland areas will be constructed so that trail fills avoid wetland impacts and minimum setbacks are allowed. A formal wetland delineation will be required along trails that may impact wetlands.	Biology			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p><i>D. G. 1.10.3.6 Construction.</i> Revegetation and/or enhancement will be undertaken where any sensitive habitat or special status species habitat will be disturbed or destroyed by trail construction. The design of an appropriate revegetation program shall fully compensate for the lost habitat, with no net loss of habitat functions and values. The revegetation program should be designed by a qualified biologist, submitted to the appropriate regulatory or trustee agency (usually the Department of Fish and Game) for approval and implemented prior to or concurrently with the trail development. At a minimum, the revegetation program will include a description of project impacts, mitigation calculations, the mitigation site, revegetation techniques, maintenance measures, a long-term monitoring program, and contingency measures. Riparian and wetland habitat impacts will typically be mitigated at a 3:1 ratio for high quality habitat areas and at lower ratios where lower habitat quality justifies a lower ratio. A lower ratio may also be justified if habitat mitigation is implemented prior to the occurrence of impacts. Mitigation will be based on in-kind replacement of impacted habitat with habitat of equal or better biotic value. Native plant materials will be utilized in all mitigation work.</p>				
<p>D. G. 1.10.4 Other Habitat Areas. In other areas (for example, serpentine grasslands), no specific setbacks are required; however, at a minimum, all proposed trail alignments should be reviewed in the field by a professional biologist prior to construction.</p>	Biology			
<p>D. G. 1.10.5 Watersheds</p>				
<p><i>D. G. 1.10.5.1 Reservoirs.</i> Within watersheds of water supply reservoirs, new trails shall be sited to minimize potential water pollution and stream bank erosion. Equestrian trails shall not be sited parallel to “blue line” streams (as mapped on USGS 7.5 minute Quad maps) and major drainages (determined during the preparation of individual trail Design and Management Plan) within 150 feet of the bank of the streams. Where equestrian trails must cross streams or major drainages, the trail shall be sited perpendicular to the stream (to the extent allowed by topography and vegetation) through the</p>	Hydrology			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
300-foot buffer zone (150 feet on each side) in order to minimize the distance of the trail within the buffer zone. This measure may be modified on a case-by-case basis upon the advice of a professional biologist or water quality specialist and the concurrence of the applicable applicable water agency. (For example, where it makes sense to use the top of an existing levee or access road as an equestrian trail rather than constructing a new trail in otherwise undisturbed habitat, it may be possible to achieve the same objective of minimizing potential water pollution by sloping the top so that drainage would be directed toward the landward side of the levee rather than toward the water body.)				
<i>D. G. 1.10.5.2 Equestrian Trails.</i> When siting new equestrian trails near water supply reservoirs, trails shall not be located within 150 feet of the high water line of the reservoir. This requirement may be modified on a case-by-case basis upon the advice of a professional biologist or water quality specialist and the concurrence of the applicable water agency.	Hydrology			
<i>D. G. 1.10.5.3 Water Quality Protection.</i> For all new trail routes proposed in watersheds of water supply reservoirs, the County Parks and Recreation Division will consult with the applicable water agency regarding water quality protection. When specific reservoir watershed management plans are available, the guidelines for water quality protection shall be considered as applicable for trails proposed within those watersheds.	Hydrology			
D. G. 1.11 Wildland Fire Wildland fire hazards shall be considered when siting new trails. When individual trails are being designed, the CDF Fire Hazard Severity Zone Maps shall be reviewed as well as the Hazards Map in the County of San Mateo General Plan. Areas of high fire hazard shall be avoided or trail closure shall occur when fire hazard is deemed high.	Hazards, Safety			
D. G. 1.12 Hillside Scenic/Aesthetic Resources Trail alignments across the face of open hillsides and near the top of ridgelines shall be sited to avoid creating permanent, noticeably visible lines	Aesthetics			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
on the existing landscape when viewed from points looking up at or perpendicular to the trail. Criteria to be used in siting the trail includes, but is not limited to: avoidance of excessive cuts in slopes that could not be effectively revegetated, presence of native soil to support revegetation, and placement of trail alignments on cross-slopes less than 45%.				
D. G. 1.13 Areas of Geologic Instability				
<p>D. G. 1.13.1 Hazards. Appropriate surveys shall be conducted as part of trail route site planning to identify the occurrence of any potentially hazardous geologic conditions. Such areas shall be avoided or necessary construction design measures shall be incorporated into the design of the trail to assure that:</p> <ul style="list-style-type: none"> • Users will not be exposed to the identified hazard • Trails would not contribute to increasing the degree or extent of instability • Drainage from the trail would be routed away from the instability 	Geology/Soils			
<p>D. G. 1.13.2 Sand Dunes. The proposed trails shall be designed to protect the integrity of sand dunes by routing trails around them instead of through them, whenever possible.</p>	Geology/Soils			
<p>D. G. 1.13.3 Structures. Where structures are proposed, a geotechnical evaluation shall be conducted to identify engineering methods to reduce the potential for structural failure due to geological hazards</p>	Geology/Soils			
<p>D. G. 1.14 Emergency Access</p> <p>During trail implementation, planners should locate final trail alignments and access points to allow the trails to also serve as emergency access routes (for patrol or emergency medical transport). For more remote trails, emergency access points should be located, where feasible, approximately every two miles along the trail and provide either access for ground vehicles</p>	Transportation			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
or helicopter landing sites.				
<p>D. G. 2.0 TRAIL SETTING</p> <p>The public lands or easements that comprise the trail setting should provide width sufficient for management and/or buffer space from adjacent uses so as not to preclude the viability of those uses. Trail width shall be appropriate to the slopes that the trail transverses.</p>	Land Use			
<p>D. G. 2.1 Tread Width</p>				
<p>D. G. 2.1.1 Tread. Trail tread width should be determined by amount and intensity of trail use and field conditions such as topography, vegetation and sensitivity of environmental resources.</p>	Biology			
<p>D. G. 2.1.2 Multi-Use. Multiple-use, natural tread, double track trails should be designed as two-way paths. Where paved, the paved portions of a multiple-use trail should have an optimum width of 12 feet with a center stripe and minimal 2-foot, flush gravel shoulders, or clear space on each side of the trail.</p>	All			
<p>D. G. 2.1.3 Hike Only. Single-purpose hiking trail treads should be an optimum of 4 feet wide.</p>	Recreation			
<p>D. G. 2.2 Trail Grades</p> <p>Grades along trail treads should be held to a minimum. Grades of 10% or less are desirable; grades may be as great as but not greater than 12.5% without use of switchbacks. Where grades are steeper, long, gradual switchbacks should be used rather than short, steep switchbacks.</p>	Geology			
<p>D. G. 2.3 Accessible Trails</p>				

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments											
		Yes	No												
<p>D. G. 2.3.1 American With Disabilities Act (ADA). Where feasible, the design of County trails should recognize the intent of the ADA and should emphasize accessibility for everyone. To determine feasibility and the degree to which trails will be designed for whole-access, the overall terrain conditions of the area surrounding the trail route will be referenced. As an initial reference, three general accessibility zones are: Valley Floors/Coastal Plain; Foothills; and Canyon/Mountain. Table G2 defines the general slope characteristics of each of these zones. The final definition of each zone as it pertains to a particular trail alignment should be made only after detailed site investigations have been conducted.</p>	Public Services, Transportation														
<p>Table G2: Ranking Access Conditions by Topography</p> <table border="1"> <thead> <tr> <th rowspan="2">Criteria</th> <th colspan="3">Accessibility Zone</th> </tr> <tr> <th>Easy Level of Access (e.g. Valley Floor/ Coastal Plain)</th> <th>Moderate Level of Access (e.g. Foothills)</th> <th>Difficult Level of Access (e.g. Canyon/ Mountain)</th> </tr> </thead> <tbody> <tr> <td>Average slope conditions over entire area of trail</td> <td><10%</td> <td>11% - 20%</td> <td>>20%</td> </tr> </tbody> </table>	Criteria	Accessibility Zone			Easy Level of Access (e.g. Valley Floor/ Coastal Plain)	Moderate Level of Access (e.g. Foothills)	Difficult Level of Access (e.g. Canyon/ Mountain)	Average slope conditions over entire area of trail	<10%	11% - 20%	>20%				
Criteria		Accessibility Zone													
	Easy Level of Access (e.g. Valley Floor/ Coastal Plain)	Moderate Level of Access (e.g. Foothills)	Difficult Level of Access (e.g. Canyon/ Mountain)												
Average slope conditions over entire area of trail	<10%	11% - 20%	>20%												
<p>D. G. 2.3.2 Access Zones. Table G3 summarizes trail design criteria to be used for the three general accessibility zones. All County trail routes in unincorporated County jurisdiction within the Valley Floor zone should be designed to meet guidelines presented in Table G3.</p> <p>Trails within Foothills and Canyon/Mountain zones should be evaluated on a case-by-case basis.</p>	Transportation														

Guideline	Accessibility Zone			Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
	Easy Level of Access (e.g. Valley Floor)	Moderate Level of Access (e.g. Foothills)	Difficult Level of Access (e.g. Mountains)		Yes	No	
Table G3: Summary of Accessible Design Guidelines for Trails							
Design Component							
Maximum running slope	8.33%	10%	12.5%				
Maximum interval of 5 ft by 5 ft passing areas ²	200 ft	300 ft	400 ft				
Optimum trail tread	5 ft 0 in	5 ft 0 in	4 ft 0 in				
Rest area trail tread	600 ft	900 ft	Optional				
Maximum ramp gradient	10%	12.5%	15%				
Maximum ramp rise to landing	48 in	60 in	72 in				
Maximum ramp run to landing	40 ft	40 ft	40 ft				
Maximum trad cross-slope	3%	5%	5%				
Minimum vertical clearance	6 ft 8 in	6 ft 8 in	6 ft 8 in				
¹ Based in guideline developed in cooperation with Federal agencies ² Not required if trail is a minimum of 5 ft in width ³ Single-purpose Hiking Trail Only							

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>D. G. 2.4 Sight Distance</p> <p>Clearing widths of Multiple-use and Limited-use trails involving bicycles should be developed to assure a 100-foot average sight distance where possible. If sight distances on curves, around hills or through densely vegetated areas are less than 100 feet, safety signs and reduced speed limits should be implemented.</p>	Safety			
<p>D. G. 2.5 Trail Undercrossings</p> <p>Where a County trail must pass under a highway bridge, sufficient vertical clear-space and security lighting should be provided to accommodate trail use. Where the provision of such spaces is not possible, alternative trail tread textures should be provided and safety signs placed on either side of the undercrossing involved to inform trail users of such conditions and the appropriate use conditions to follow, such as reducing speeds or dismounting.</p>	Safety			
<p>D. G. 2.6 Speed Limits</p> <p>A speed limit of at least 15 miles per hour (MPH) shall be placed on all trails that permit cyclists and other trail uses (e.g., pedestrian, equestrian). Signs shall be located at trail entrances that indicate that a speed limit is in effect.</p>	Transportation			
D. G. 3.0 TRAIL MATERIALS AND CONSTRUCTION PRACTICES				
<p>D. G. 3.1 Machine vs. Hand Construction</p> <p>Machine construction of trails is the most cost-effective in the majority of cases. Hand construction of trails is preferable where opportunities for use of volunteer labor exist or where potential impacts to land or habitat resources, and subsequent mitigation costs, would be exacerbated by machine construction.</p>	Biology, Geology			
<p>D. G. 3.2 Minimum Disturbance</p> <p>Trail development should be limited to the minimum construction necessary</p>	Biology			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
to provide for public safety and to protect natural and cultural resources.				
D. G. 3.3 Recycle When feasible, recycled materials should be used in the construction of trails.	Mineral Resources			
D. G. 3.4 Construction Limits Visible evidence of trail construction should be confined to the trail clearing limit.	Biology			
D. G. 3.5 Clearing Width and Height The minimum horizontal clearing width from physical obstructions varies based on the type of trail but should be no less than 2 feet from the outer limits of the trail tread and shall be determined on a case by case basis to protect special natural features. Minimum vertical distance from overhanging branches shall be 12 feet on trails open to equestrian or bicycle use. Minimum vertical distance from overhanging branches shall be 7 feet on hiking trails. Clearing shall be determined on a case-by-case basis to protect special natural features.	Safety, Biology			
D. G. 3.6 Trail Surfaces				
D. G. 3.6.1 Material. Where feasible, trail treads should be of materials that provide a firm, smooth surface meeting the requirements of the most current Americans with Disabilities Act Accessibility Guidelines for Outdoor Developed Areas.	Transportation			
D. G. 3.6.2 Surface. Trail surface appropriate to intended use shall be selected so as to minimize runoff and erosion problems.	Geology/Soils			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
D. G. 3.7 Grading and Drainage				
D. G. 3.7.1 Extent of Grading. No large-scale grading shall be used for trail construction unless in conjunction with a development project where large-scale grading has been found acceptable. Trail designs shall conform to the County Excavating, Grading, Filling, and Clearing Ordinance.	Geology/Soils, Biology			
D. G. 3.7.2 Cut and Fill. The degree of cut allowed on a slope depends on the soil type, hardness, and surrounding natural resources. Ultimate cuts shall be contoured to blend with the natural slopes. Berms of earth, rocks or wood on the outside of the trail may be necessary. Steep areas shall be handled by limited terracing or building steps to avoid large-scale grading. Steps must be reinforced with stone or wood.	Geology/Soils			
D. G. 3.7.3 Soil Disturbance. In order to reduce erosion and maintenance problems, disturbance of the soil surface shall be kept to a minimum. Only those rocks, stumps and roots, which interfere with safe passage, shall be removed.	Geology/Soils			
D. G. 3.7.4 Drainage. Trail designs shall comply with the County Surface Runoff Management Plan. Surface water shall be diverted from trails by outsloping the trail tread between 1% and 3% where feasible. Where necessary, shallow ditches or water bars shall be used to divert water on running slopes greater than 5%. Other trail drainage techniques may include rolling dips, culverts, or ditches on sides of trails.	Geology/Soils, Hydrology			
D. G. 3.7.5 Erosion Control Plans. Where a potential for significant soil erosion exists along a new trail alignment, specific erosion control plans shall be prepared by a qualified professional. Criteria to be used in determining the erosion potential includes: slope, soil type, soil composition and permeability and the relative stability of the underlying geologic unit. The erosion control plans shall comply with erosion control policies in the San Mateo County General Plan and San Mateo County Local Coastal Program.	Geology/Soils			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>D. G. 3.8 Planting of Disturbed Areas Any cut or fill slopes shall be immediately reseeded or replanted with vegetation native to the general area. Criteria that would be used in selecting plant materials include, but is not limited to: if the species is indigenous to the area; habitat value; rate of growth; ultimate size; fire resistance; strength of root system; resistance to pests and diseases; aesthetic characteristics; ability to provide shade; and ease of maintenance. Noxious plants (e.g. Yellow Star Thistle) shall be controlled within the trail setting.</p>	Geology/Soils, Biology			
<p>D. G. 3.9 Cultural Resource Protection</p>				
<p>D. G. 3.9.1 Trail Avoidance. Trail design shall avoid adverse impacts to cultural resources. If avoidance is not possible, impacts should be minimized by avoiding areas where resources are known to exist.</p>	Cultural Resources			
<p>D. G. 3.9.2 Buried Resources. During excavation of each individual trail, construction personnel shall look out for buried archaeological resources and human remains. If these resources are discovered, construction shall cease until a qualified archaeologist has studied the resources. All identified archaeological sites shall be evaluated using the California Register of Historical Resources criteria. The archaeologist shall identify the proper course of action to reduce project impacts on cultural resources. This shall include studying and reporting on the site to ensure that data is available to future researchers. Material recovered shall be donated to an appropriate repository for future study.</p>	Cultural Resources			
<p>D. G. 3.9.3 Human Remains/Objects. If prehistoric archaeological deposits that include human remains or objects considered “cultural items” according to the Native American Graves Protection and Repatriation Act are discovered during construction, the County Coroner and a qualified archaeologist shall be notified immediately and NAGPRA regulations shall be followed. If the remains are identified as American Indian, the tribe(s) shall be notified within one (1) working day and consultation will be initiated. Project activities may resume 30 days after notifying the tribe(s).</p>	Cultural Resources			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
Repatriation of the other categories of items (funerary objects, sacred objects, and cultural patrimony) shall be based on evidence that indicates whether or not the original acquisition of the object was from an individual that had the authority to separate the item from the tribal group.				
D. G. 3.10 Air Quality Parking surfaces and trail materials that reduce dust shall be used. Dust suppression techniques, including watering of disturbed lands, should be used in constructing multiple-use trails to reduce dust during trail construction.	Air Quality			
D. G. 4.0 TRAIL STRUCTURES				
D. G. 4.1 Drainage Crossings Trails crossing creeks and drainages may require a bridge or culvert. Culverts should be as wide as the active stream channel so that they do not limit the ability of debris to pass. Sufficient depth and velocity of water through the culvert shall exist in fish-bearing streams for passage of species concerned. Regular maintenance of drainage structures shall be performed to ensure proper functioning. Structures over water courses shall be carefully placed to minimize disturbance and should be located 2 feet above the 100 year flood elevation or 2 feet above the Flood Hazard Flood Insurance Rate Map flood elevation. Erosion control measures shall be taken to prevent erosion at the outfalls of drainage structures. Flow of runoff will be directed to vegetated areas, away from creeks and drainages.	Hydrology, Geology/Soils			
D. G. 4.2 Trail Bridges Bridges should be a minimum of 5 feet wide on hiking and equestrian and a minimum of 8 feet wide on a natural-surfaced multiple-use trail. Bridges for paved multiple-use trails should be a minimum of 12 feet wide and structurally capable of carrying maintenance vehicles. All bridges must have minimum 42-inch high railings when necessary. Fill over culverts should match the trail width. Bridge footings should be constructed outside of the	Safety, Hydrology			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
stream's top of bank.				
D. G. 4.3 Hardware. All trail structures should be designed to be as vandal-proof as possible. Rounded framing members and recessed bolt heads and other hardware should be used for safety.	Safety			
D. G. 4.4 Access and Safety Barriers				
D. G. 4.4.1 Types of Barriers Bollards, boulders, logs, stiles and/or other structures shall be used to prevent motorized vehicles from entering trail routes at any crossing of a public road right-of-way or at any trail staging area. Barriers shall be designed to comply with the latest Americans with Disabilities Act (ADA)Accessibility Guidelines for Outdoor Developed Areas at trails designated as ADA accessible.	Transportation, Safety, Recreation			
D. G. 4.4.2 Heavy Travel. Safety barriers, grade separations and/or barrier plantings shall be provided to protect trail routes along heavily traveled roads.	Geology, Transportation			
D. G. 4.4.3 Gates. Gates installed for trail users should be four to five feet in width and able to be easily closed or self-closing. Vehicle gates, where necessary, should be signed to prevent blockage.	Safety, Recreation			
D. G. 4.5 Signs Sign standards should be adopted for all County trails, using the same style and design. International symbols should be used on signs. Six types of signs should be considered in management plans for each County trail (D.G. 4.3.1 through D.G. 4.3.6).	Public Services, Aesthetics, Recreation			
D. G. 4.5.1 Identity Signs. Identity Signs portraying information to include: trail name and distance to staging areas; intersections with other trails; or other points of interest along the trail route. Identity signs should be located at all staging areas, County trails intersections, intersections with other trails	Public Services, Recreation			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
as appropriate and intersections with roads.				
D. G. 4.5.2 Use Signs. Use signs portraying which types of trail use are appropriate, permitted or prohibited on the trail; identifying accessibility conditions and other ADA related information; educating trail users about respecting private property along the trail route and/or any special land use considerations; and prohibiting smoking and the use of matches or lighters. Use signs should be placed at each trail staging area. Information about litter control shall be included in use signs located at trail access points.	Recreation, Public Services			
D. G. 4.5.3 Safety Signs. Safety signs displaying warnings of upcoming underpasses, street intersections, blind curves, vertical clearances; providing information about water availability along the trail; advising trail users of the need to reduce speed or dismount and walk their bicycles or horses; warning of mountain lion or other wildlife danger; identifying any use restrictions during the fire season; and explaining the hierarchy of yielding among trail users. Safety signs should be located on an as-needed basis.	Safety, Recreation			
D. G. 4.5.4 Private Property Signs. Private property signs should be posted at regular intervals in conformance with legal requirements to remind the trail user not to trespass, as appropriate.	Land Use, Recreation			
D. G. 4.5.5 Interpretive and Protective Signs. Interpretive and protective signs indicating natural resource or historical points of interest or sensitive areas. Signs would be designed to identify specimen habitat types and to be educational by briefly describing resource characteristics and values.	Biology, Recreation			
D. G. 4.5.6 Regional Signs. Regional signs posted at strategic locations to direct regional traffic to staging areas and away from neighborhoods which may have trail access points but do not have sufficient parking to accommodate such use.	Transportation, Recreation			
D. G. 4.6 Potable Water Potable water for trail users should be provided at least every 5 miles along	Public Services			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
Regional Trails, as appropriate. A sign shall be posted at every trail entrance stating that hikers must carry their own water when potable water is not available on the trail.				
<p>D. G. 4.7 Non-Potable Water</p> <p>Water for domestic animals permitted on the trail should be provided at major access points and at an optimum of 5-mile intervals along Regional and Sub-regional Trails, as appropriate.</p>	Public Service, Recreation			
<p>D. G. 4.8 Sanitary Facilities</p> <p>Sanitary facilities should be located at all Parks and Open Space Preserves that are sited along the trail system and at staging areas, as appropriate. The facilities shall be sited to minimize maintenance cost and time. Where necessary, based on anticipated types and volumes of use, sanitary facilities shall be located along trails. The sanitary facilities shall be fully ADA accessible, if feasible.</p>	Public Services, Recreation			
<p>D. G. 4.9 Benches</p> <p>Benches for resting should be provided at regular intervals within 1/2 mile of formal staging areas along trail routes where use levels are significant, as appropriate. These should be located at places with aesthetic qualities, viewpoints and particularly at the end of any long uphill stretches. Benches shall meet the County of San Mateo Parks and Recreation Division standards. Any dedication shall be in conformity with the County Parks and Recreation Division gifts and donation policies.</p>	Public Services, Recreation			
<p>D. G. 4.10 Stream Access Points</p> <p>In the detail design of any trail alignment parallel to a freshwater stream zone or estuary, access points should be identified for environmental education and interpretive programs. Such access points should be sited in coordination with the California Department of Fish and Game, the U.S. Army Corps of Engineers, and other jurisdictional agencies as appropriate.</p>	Hydrology, Biology, Public Services			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>D. G. 4.11 Wildland Fire Suppression</p> <p>During preparation of design plans for specific trail alignments, the County Parks Division shall:</p> <ul style="list-style-type: none"> Review, in conjunction with the local fire protection services, available water sources. Select indigenous plant materials and/or seed mixes utilized at staging areas or along trails for their low maintenance and drought and fire resistant characteristics to minimize additional fuel available to wildland fires to the maximum extent feasible. 	Hazards, Safety			
<p>D. G. 4.12 Emergency Telephones</p> <p>Along trails located outside of public parks and along trails that pass through more remote areas or private lands, consider installing solar-powered emergency telephones at regular intervals, as appropriate.</p>	Public Services			
<p>D. G. 4.13 Visual Screening</p>				
<p>D. G. 4.13.1 Screening. Screening berms, perimeter planting, and parking area trees that provide a canopy shall be used at Regional Staging Areas to visually buffer views into the staging area from sensitive view points, or to block views of incompatible surrounding land uses as seen from inside the staging area.</p>	Aesthetics			
<p>D. G. 4.13.2 Structures. All structures proposed that are located in scenic corridors shall be screened using landscaping.</p>	Aesthetics			
<p>D. G. 4.13.3 Lighting. Any restrooms proposed as a part of any trail segment in a scenic corridor shall use warm toned security lighting in outside areas that is directed towards the ground.</p>	Aesthetics, Public Services			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
D. G. 4.13.4 Utilities. All utilities constructed as a part of this project, within a State scenic corridor, shall be underground.	Public Services			
D. G. 4.14 Receptacles				
D. G. 4.14.1 Placement. Trash receptacles shall be included at staging areas, where feasible, slightly beyond the beginning point of a trail where it is accessible to maintenance vehicles but not accessible to public vehicular access.	Public Services			
D. G. 4.14.2 Logistics. Recycling receptacles, which accept glass, metal, and plastic, shall be included at staging areas, where feasible. Recycled materials shall be picked up as part of the routine maintenance of the trails and brought to a recycling facility.	Public Services			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
Use and Management Guidelines				
M.G. 1.0 GENERAL				
<p>M. G. 1.1 Day-use Management</p> <p>County trails are intended for day-use only except when within a public road right-of-way or when a special permit is obtained. When requested by a property owner, gates that provide access to private property shall be securely locked by the managing agency to avoid unauthorized entry.</p>	Land Use			
<p>M. G. 1.2 Trails and Trail Users</p> <p>The Parks and Recreation Division shall determine if an individual trail will be a Multi-Use trail. Trail uses should be consolidated where safe within the same trailway, depending on the steepness, available right-of-way, safety, user frequencies, and other conditions. A type of use on a trail may be prohibited for safety or environmental reasons, such as erosion and water quality.</p>	Land Use, Recreation, Geology/Soils, Hydrology			
M. G. 1.3 Trail Use Restrictions				
<p>M. G. 1.3.1 User Types. Where a trail is restricted to a particular type of user(s) because of conditions listed above, the trail shall be clearly designated as such and shall be equipped with use signs and appropriate barriers to discourage unauthorized use.</p>	Land Use, Recreation			
<p>M. G. 1.3.2 Use Conditions. Where a trail, surrounding habitat or adjacent land use condition warrants special notice limiting trail use, the trail should be clearly designated and should be equipped with use signs and appropriate barriers to discourage unauthorized use.</p>	Land Use, Recreation			
M. G. 1.4 Trail Closure				

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>M. G. 1.4.1 Reasons for Trail Closure. Reasons for trail closure include, but are not limited to:</p> <ul style="list-style-type: none"> • During trail construction, major repair, or seasonal maintenance • During seasonal periods critical to special status species • During high fire season • When a hazardous condition exists (e.g. landslide or washout) • During periods of flooding or extremely wet weather where such weather renders the trail dangerously slippery or where use would damage the trail • Where overuse threatens resource values • During special events • Where adjacent land uses may present unsafe conditions that could affect the trail user. 	Land Use, Recreation			
<p>M. G. 1.4.2 Authority. The Parks and Recreation Division shall decide whether or not to close County trails or trail segments.</p>	Land Use, Recreation			
<p>M. G. 1.4.3 Notice. Notice of trail closure shall be posted at all trail entrances and staging areas. Barriers shall be placed at strategic points where feasible.</p>	Land Use, Recreation			
<p>M. G. 1.4.4 Information. Trail closure notices should include: the reason(s) for the closure; what steps will be taken to correct the problem; an estimate of how long the trail will be closed; and a telephone number to call for further information.</p>	Land Use, Recreation			
<p>M. G. 1.4.5 Posting Time. Trail closures should be as short in duration as possible; repairs shall be made as necessary. Prior to opening a closed trail, the Parks and Recreation Division shall make a determination that there is no danger to public safety or potential long-term adverse effects on the trail setting before noticing the trail as reopened.</p>	Land Use, Recreation			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>M. G. 1.4.6 Criteria. The County Parks and Recreation Division shall collaborate with California Department of Forestry (CDF) on the specific criteria used for procedures to temporarily close trails during high fire conditions.</p>	Safety, Hazards			
<p>M. G. 2.0 PRIVATE ACCESS TO PUBLIC TRAILS</p>				
<p>M. G. 2.1 No Private Access Except where trail routes cross driveways and front entry walks, no private access to County trails or gates within continuous fencing/walls along the property line or trail easement shall be permitted without prior written authorization from the appropriate jurisdiction. A bond may be required by the jurisdiction in the amount of the actual costs to reclaim the private access in the event the access is abandoned.</p>	Land Use, Recreation			
<p>M. G. 2.2 Criteria Criteria that shall be used to evaluate the appropriateness of private access to public trails includes: visibility of access points; self-closing and self-locking features of gates; route alignment between the entry point and the actual trail tread; and maintenance costs and responsibilities.</p>	Land Use, Recreation			
<p>M. G. 2.3 Access on Open Lands In areas where public trails traverse private grazing or open lands, specific fence, gate and crossing designs will be determined with the individual property owner. Fences shall allow for wildlife passage and may be 6-foot chain link fence and/or barbed wire in conformance with State regulations governing such use. Wire, chain link or metal pipe gates shall be installed in the fence to allow perpendicular access across the trail corridor for the convenience of grazing tenants or for emergency and service vehicle access. Underground cattle and game crossings at regular intervals may be used in conjunction with gates and cattle guards as determined by the needs of the individual landowner.</p>	Land Use, Recreation, Agriculture			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
M. G. 3.0 TRAIL MONITORING AND MAINTENANCE				
<p>M. G. 3.1 Maintenance Inventory</p> <p>A yearly inventory of all trail maintenance, including drainage, vegetation clearing, signing, surfacing, need for graffiti removal and repair of structures, gates, fences and barriers shall be done in early spring, prior to the heavy summer use period.</p> <p>Based on maintenance reports done yearly at the end of summer for winterizing trails, trails shall be subject to seasonal closures or repair as warranted.</p>	Land Use, Biology, Public Services			
<p>M. G. 3.2 Re-Routing</p> <p>Short segments of trails may require permanent re-routing due to landslides or other problems. The original route should be closed to use and reclaimed when a new route is provided. The managing agency should determine when such rerouting is necessary. Should re-routing involve private lands, all trail policies and guidelines shall apply.</p>	Geology/Soils, Land Use, Recreation			
<p>M. G. 3.3 Vegetation Management</p> <p>Vegetation growth should be cleared and obstacles should be removed where necessary. Good pruning practices along trails should be followed. Ground cover plants and low shrubs should not be cleared beyond the original construction stand. The construction stand shall be defined as the trail tread width plus 1-2 feet from (see Figure 2) each side of edge of the trail tread. Noxious plants (e.g. Yellow Star Thistle) should be controlled along the trail in a timely manner.</p>	Biology			
<p>M. G. 3.4 Vegetation Removal</p> <p>Within the trail clearing limit, understory grasses and herbaceous annuals should be controlled. Mechanical removal of undesirable vegetation from the trail path shall be employed whenever possible. Mechanical removal can include hand removal or grazing. If herbicides must be used, they shall be</p>	Biology			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
applied, handled, and disposed of according to applicable regulations and manufacturing instructions. These chemicals shall be applied by an individual who is properly trained in their application.				
<p>M. G. 3.5 Erosion Control and Damage Repair</p> <p>Corrective work for drainage or erosion problems shall be performed within a reasonable period of time. Where necessary, barriers to prevent further erosion shall be erected until problems are corrected. Missing or damaged signs shall be replaced as soon as possible. Damaged structures shall be repaired as soon as possible. Damaged gates, fences and barriers shall be replaced as soon as possible. Trails shall be closed if corrective work can not be accomplished within a reasonable time frame. If monitoring reveals that undesirable soil compaction is occurring in sensitive habitats adjacent to trails, erection of barriers or other appropriate measures (such as trail rerouting) will be employed as needed to discourage off-trail use.</p>	Geology/Soils			
<p>M. G. 3.6 Paved Trails</p> <p>Where trails are paved, they should be swept periodically to keep them free of loose gravel, debris, broken glass and other litter. Damaged pavement should be repaired or replaced as soon as possible. Unpaved trails should be regraded or resurfaced as necessary to maintain smooth surfaces and positive drainage.</p>	Transportation, Safety			
<p>M. G. 3.7 Unauthorized Trails</p> <p>Brush or other aesthetically acceptable barriers should be used to cover illegal trails, abandoned trails, or shortcuts to discourage use until natural vegetation returns.</p>	Land Use, Recreation			
<p>M. G. 3.8 Monitoring</p> <p>Periodic monitoring of known sensitive habitats near trails will be conducted to determine if unacceptable soil compaction is occurring.</p>	Biology, Cultural Resources			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>M. G. 3.9 Maintenance</p> <p>Maintain trails in a manner that meets defensible space and fuel modification standards. The level of maintenance should be commensurate with the level of surrounding fuel loads/topography and adjacent values at risk and meet relevant standards in effect for the specific locale.</p>	Safety			
<p>M. G. 4.0 TRAIL RECLAMATION</p> <p>Should there be an event that necessitates the permanent closure of a County trail, a management program to rehabilitate the trailway will be developed. Such a program shall include disking and replanting the former trail to a natural condition, and sufficiently blocking the trail with barriers to effectively prohibit use. Management shall include monitoring of the trail to ensure that it returns to a natural condition without the intrusion of invasive exotic plants. Management shall also include design elements, maintenance, and monitoring to ensure that erosion is minimized.</p>	Recreation, Land Use, Biology			
<p>M. G. 5.0 TRAIL PATROL AND INFORMATION</p>				
<p>M. G. 5.1 Trail Maps</p> <p>The Parks and Recreation Division has responsibility for revising existing park maps to show up-to-date trail information, and to develop new trail maps as trail routes are opened. Trail maps should also provide trail use rules, emergency information, trail accessibility, and other pertinent information.</p>	Land Use, Recreation, Public Services			
<p>M. G. 5.2 Trail Patrol</p> <p>The Parks and Recreation Division has the responsibility for patrolling all County trails within the County's jurisdiction whether by division staff or by contract with related agencies or approved volunteer groups. On trails that extend outside the County's jurisdiction, cooperative agreements with appropriate agencies should be formed for trail patrol and maintenance activities.</p>	Safety			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>M. G. 5.3 Multi-Jurisdictional Patrols</p> <p>Where multiple-use trails that pass through multiple jurisdictions permit, establish in conjunction with all jurisdictions involved, trail-specific patrols created by the participating agencies or through contracts with appropriate law enforcement agencies.</p>	Land Use, Recreation, Safety			
<p>M. G. 5.4 Patrol Frequencies</p> <p>Monitor trail use and activities to adjust patrol frequencies.</p>	Land Use, Recreation, Safety			
<p>M. G. 5.5 Coordination with Sheriff's Office</p> <p>Establish trail-specific patrols by Park Rangers and necessary contracts with the County Sheriff's Office for trails connecting parks that pass through private lands.</p>	Land Use, Recreation, Safety			
<p>M. G. 5.6 Management for Private Lands</p> <p>When preparing design and management plans for individual trail routes that connect County Parks and cross through private property in remote rural areas of the county, consider controlling and monitoring public use of the trail.</p>	Land Use, Recreation, Safety			
<p>M. G. 5.7 Coordination with Other Agencies</p> <p>Improve coordination between the County, Mid-Peninsula Regional Open Space District (MROSD), and other appropriate agencies with respect to implementing trail closures and regulations, preparation of detailed design and management plans for trails and formalization of mutual aid agreements. The staff of MROSD and other appropriate agencies provide services that in many situations can supplement the services that county park rangers provide.</p>	Land Use, Recreation			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
M. G. 5.8 Trail Supervision				
M. G. 5.8.1 Minimum Presence. All County trails shall be patrolled to assure that they are safe and usable.	Safety, Recreation			
M. G. 5.8.2 Use of Volunteers. To the extent feasible, certain aspects of trail supervision, such as trail safety and security, litter control and information and education should be accomplished by volunteers. In any event, county personnel shall inspect the trails as outlined above.	Recreation, Public Services			
<p>M. G. 6.0 STAFFING</p> <p>Prior to developing and opening a County trail to public use, a trail management plan that identifies the level of personnel needed to operate and maintain the trail relative to the above guidelines shall be prepared by the lead agency(ies). Criteria to be included in the trail management plan include, but are not limited to:</p> <ul style="list-style-type: none"> • Anticipated types and levels of use • Availability of police and fire protection • Trail patrols • Annual maintenance requirements • Emergency management allotments • Management agreements with other agencies • Anticipated use of volunteers or contract services <p>Prior to opening for public use, funding for a trail’s maintenance in terms of staffing and equipment will be identified and obtained for the first fiscal year of a new trail’s operations.</p>	Land Use, Recreation, Public Services			
<p>M. G. 7.0 NOTICING REQUIREMENTS OF LANDOWNERS</p> <p>Where a County trail route illustrated on the Trails Plan Map involves private property, formal notification shall be made to the landowner at the</p>	Land Use			

Guideline	Environmental Parameter(s) Affected	Is this Guideline Applicable to the Proposed Project?		Comments
		Yes	No	
<p>following times with regard to the County's interest in trails:</p> <ol style="list-style-type: none"> 1. Upon submission of an application by the landowner to the County: <ul style="list-style-type: none"> - A proposed subdivision/cluster development - Minor land subdivisions - Architecture and site approvals - A use permit 2. Upon the initiation by the county of its intent to develop a trail within an existing trail easement across private property; and 3. When a Negative Declaration or Environmental Impact Report is prepared for a specific trail project pursuant to the California Environmental Quality Act. <p>Noticing would not be required for:</p> <ol style="list-style-type: none"> 4. The construction of a single family residence or the remodeling thereof or addition thereto 5. The construction of a secondary dwelling unit or caretaker unit or guest house as may be permitted in the respective zoning district 6. The construction of outbuildings that are ancillary to a use permitted by right within a respective zoning district 7. Any minor use permit for a use that is directly or indirectly supportive of agriculture 				

