

Torrey Pines State Reserve Trails Management Plan

**~ Draft ~
December 15, 2005**



**By
California State Parks
San Diego Coast District
And
Torrey Pines State Reserve**

Torrey Pines State Reserve
12600 North Torrey Pines Road
San Diego, CA 92037
(858) 755-2063



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California State Parks**Mission Statement:**

To provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

1.0 EXECUTIVE SUMMARY

This Trails Management Plan for Torrey Pines State Reserve (“TPSR” or “Reserve”) of California State Parks (CSP) serves as a long-term, guiding document for Reserve managers, staff, and volunteers, who construct trail improvements, maintain or repair existing trails, or are otherwise involved with trail issues at TPSR. The Plan establishes goals for the overall trail system as well as guidelines for appropriate trail uses, trail closures and reroutes, trail maintenance and repair activities, trail aesthetics, and a trail monitoring system. The Plan also defines trail-specific guidelines for individual trails as well as recommended future planning efforts that are beyond the scope of this Plan.

This Plan shall apply to all of Torrey Pines State Reserve units and sub-units, including the Reserve, the “Extension” (Reserve property north of Carmel Valley Road), the Ellen Browning Scripps Natural Preserve, Torrey Pines State Beach, and Los Peñasquitos Marsh Natural Preserve, all of which are referred to in this document as “TPSR”.

Recommendations in this Plan are consistent with the *California Public Resources Code* Section 5019.65 (a) “State Natural Reserve”. This code is the overriding directive on the use and management of trails at TPSR and states that the primary management goal is to protect the Reserve’s natural resources (see Section 11.0 – App. 1).

A team from CSP and the Torrey Pines Docent Society was assembled to develop this Trails Management Plan. It consisted of specialists from a variety of professional backgrounds including a maintenance specialist, an archaeologist, a biologist, an engineer, a landscape architect, and rangers with many years of collective experience involving trail issues. Additional assistance came from docent volunteers and other CSP specialist staff.

Highlights of the most pertinent Plan recommendations are outlined below and can be found in more detail in the body of this document. Further detail of these and other recommendations are located in the *Guidelines* section (see 4.0). Recommendations for specific trails can be found in the *Trail-Specific Guidelines* section (see 9.0). Recommendations for issues requiring study beyond the scope of this Plan are located in the *Future Planning Efforts* section (see 10.0).

1.1 Trails Management Plan Highlights

- 1.1.1 No new trails are proposed. However, a portion of the existing Reserve road may be designated a trail after completion of a recommended future planning effort.

- 1.1.2 The Red Ridge Loop Trail is recommended for closure due to resource damage and because it is redundant to the Red Ridge Trail. No other currently-authorized trails are recommended for closure (authorized trails are shown on Table 1, page 8).
- 1.1.3 No substantial gain or loss of trail numbers, length, or area based on currently-authorized trails is proposed. A suitable re-route should be explored for all trails or trail segments that are found to compromise resources.
- 1.1.4 Should new trails be proposed in the future, they shall not be developed unless it is demonstrated that they provide a "net benefit" to the natural or cultural resources of TPSR. (see 3.2.2)
- 1.1.5 The standard of trail use shall be consistent with a "State Natural Reserve".(see 4.2)
- 1.1.6 An inventory-based trails budget shall be developed to prioritize trail repairs.(see 6.3)
- 1.1.7 Jogging shall be prohibited on the Guy Fleming Trail.(see 9.6)
- 1.1.8 A safe, consistent, long-term access to and from the beach at the terminus of the Beach Trail shall be designed and implemented.(see 9.1)
- 1.1.9 A plan for developing funding sources benefiting TPSR trails shall be created. (see 10.1)
- 1.1.10 A transportation/trail plan for the Reserve road shall be developed and implemented.(see 10.2)
- 1.1.11 An interpretive plan for TPSR that addresses the use of trails for interpretational/educational purposes shall be produced.(see 10.3)
- 1.1.12 A volunteer trail monitoring program shall be established. (see 8.0)
- 1.1.13 The Canyon of the Swifts Trail (currently closed and unauthorized) shall be permanently closed and the trail surface re-vegetated. Overlooks shall be installed at each end of the trail for viewing into the canyon.
- 1.1.14 The Whitaker Garden Trail shall be made accessible. (see 9.9)



Beach Trail – near West Parking Lot

2.0 INTRODUCTION

Torrey Pines State Reserve is a magnificent natural landscape and one of the few remaining functioning native ecosystems along the coast of northern San Diego County. It has been described as a “wilderness island surrounded by an urban sea.” The approximately 1,461-acre Reserve is a place of outstanding scenic beauty as well as a vital sanctuary for native flora and fauna, and historic and archaeological resources. TPSR is home to the rarest native pine tree in North America - the Torrey Pine (*Pinus torreyana*). Each year up to a million visitors come to enjoy TPSR; most of whom utilize the approximately 9 miles of trails that function as the primary visitor amenity and is the only first-hand way to explore the Reserve (see Figure 1).



Welcome sign at visitor center

TPSR is legally designated a “State Natural Reserve” (see App. 1 for definition). The *California Public Resources Code* (PRC), Section 5019.65 (a) “State Natural Reserve”, states that the primary management goal is to protect the Reserve’s natural resources. This Code has a direct influence on the use and management of trails at TPSR.

2.1 Trails System

TPSR has a well-established, effective, and popular trail system that is heavily-used by local residents and out-of-town visitors alike. It provides good access to most areas of the Reserve including Torrey Pine groves in the uplands area, the beach, estuary, and “Extension”. Trail loops are frequent and popular as are several scenic overlooks which offer outstanding coastal views. Many visitors place special value on the ability to hike to or from the beach through TPSR. Hikers and joggers enjoy the scenic beauty of TPSR and its challenging trail grades. In general, the trails protect resources by concentrating foot traffic to small areas of the Reserve and away from sensitive resource areas. Bicycles, horses, and motor vehicles are prohibited on all non-paved trails and are allowed on the Reserve road.

The trails vary in length, difficulty, and areas served (see Figures 2 and 3). In general, there are four main types of trails in the main part of the Reserve. The first are short, easy trails near the visitor center (“Torrey Pines Lodge”) that offer good views to the east and west (Discovery Trail, High Point Trail, and Whitaker Garden Trail). The second are medium length, easy to moderately difficult, bluff-top trails leading to scenic overlooks of the coast (Razor Point Trail, Guy Fleming Trail, and Parry Grove Trail). The third are beach access trails that are moderately long and difficult (Beach Trail and Broken Hill Trail). The fourth is the Reserve road (Old Highway 1) which is effectively used not only as a vehicular route but as a paved pedestrian and bicycle pathway. It offers scenic, through-access for bikers and pedestrians from the beach to the southern boundary of the Reserve and vice-versa. A portion of the Reserve road south of the visitor center has no public motor vehicle access making it safer for trail users. In addition to these four main trail types, other trails occur at the “Extension” (Mar

Scenic Trail, Daughters of the American Revolution Trail (D.A.R.) Trail, Red Ridge Trail, Gully Trail, and Margaret Fleming Nature Trail) and along Los Penàsquitos Marsh (Marsh Trail). Following is a listing of authorized Reserve trails with approximate location and length in miles:

TABLE 1 - Authorized Trails – TPSR (2005)

Location	Trail Name	Approx. Length (miles)
Main Reserve	Beach Trail	0.7
	Broken Hill Trail	
	- North Fork	0.4
	- South Fork	0.6
	- Lower Broken Hill Trail	0.6
	- Broken Hill Trail Overlook	0.1
	Discovery Trail	0.5
	Guy Fleming Trail	0.7
	High Point Trail	0.1
	Hobbit Trail	0.1
	Reserve Road	1.6
	Parry Grove Trail	0.5
	Red Butte Cutoff	0.2
	Razor Point Trail	0.6
	Whitaker Garden Trail	0.1
	Yucca Point Trail	0.2
	Yucca Point / Razor Point Connector	0.2
Reserve "Extension"	Daughters of the America Revolution (D.A.R.) Trail / West Ridge Trail	0.8
	Gully Trail	0.4
	Margaret Fleming Nature Trail	0.6
	Mar Scenic Trail	0.3
	Red Ridge Trail	0.3
	Red Ridge Loop Trail	0.1
Los Penàsquitos Marsh Natural Preserve	Marsh Trail	1.4

At the time of this writing, due to lack of staff and funding, and winter storm damage, the overall condition of the trail system is poor. Many major repairs are needed, and for this reason some trails are closed. Other trails are in a moderately unsafe condition due to severe ruts and tripping hazards, but remain open.

2.2 Trails Management Plan

There were several reasons for the development of this comprehensive trails management plan. These included: 1) increases and shifts in type of trail use at TPSR, 2) lack of documented vision for future trail planning and development, 3) sporadic and under-funded trail work leading to inconsistent trail maintenance standards, and 4) piecemeal solutions to trail problems without benefit of a common goal. The following topics are addressed in this Plan to provide direction and guidance toward rectifying these deficiencies:

- Purpose and goals for/of the trail system.(see 3.0)
- Appropriate trail uses.(see 4.1 thru 4.5)
- Trails closures and re-routes.(see 5.0)
- Annual trail maintenance and Best Management Practices (BMP).(see 6.0 thru 6.2)
- Prioritization criteria for trail repair and improvement projects.(see 6.3)
- Criteria for trail aesthetics, including trail materials, signs, and other human-made trail elements.(see 7.0)
- Trail monitoring program.(see 8.0)
- Recommended trail-specific treatments.(see 9.0 thru 9.11)
- Future trail planning efforts.(see 10.0 thru 10.3)

This document is consistent with statewide trail mandates and guidelines per CSP's *Trail Manual (1991)*. In addition, this document complements the provisions of the CSP's *Torrey Pines State Beach and State Reserve General Plan (July 1984)*.

This document is not intended to be an assessment of current trail conditions. Although a thorough assessment was completed and utilized for this Trails Management Plan, trail conditions vary on a day-to-day, season-by-season basis.

2.3 Planning Team

The planning team for this effort consisted of CSP staff from the San Diego Coast District and TPSR, as well as a representative from the Torrey Pines Docent Society. This team was composed of specialists from a variety of professional backgrounds including maintenance, archaeology, biology, engineering, landscape architecture, and rangers with many years of collective experience involving trail issues. Assistance came from other CSP staff to provide direction on specialized trail issues. These included a statewide trails coordinator, hydrologist, GIS specialist, and traffic engineer. Refer to *Planning Team Members*, page 39 of this document for a list of team members and their areas of expertise.

2.4 Planning Process

The planning process occurred in four general phases. The first phase involved information-gathering and identifying trail issues. This included acquiring and assembling trail maps, locating pertinent historic and archaeological data, and chronicling trail issues. During this phase, the team made a trail-by-trail documentation of issues to identify concerns that needed to be addressed in the plan. The second phase considered potential solutions (alternatives) for the issues. These listed general goals for the trail system as well as alternative plans for certain trail issues (see *App. 4 and App. 5*). The third phase chose preferred alternatives to specific trail issues, and the production of the trail plan document. The fourth and final phase shall include making the plan available for CSP and public review through the CEQA process and is scheduled to be completed after an initial public meeting.

The following information was used by the planning team in order to address trail issues at TPSR and to complete this Trails Management Plan:

- 2.3.1 Existing authorized trails were mapped using Geographic Information Systems (GIS). In addition, digital aerial photographs and topography were purchased from the San Diego Association of Governments (SANDAG) for use on the project and an archive of historic maps and aerial photographs from J. Johnson (2004) was referred to.
- 2.3.2 CSP trail documents and natural and cultural resource information such as site records and maps were collected and applied.
- 2.3.3 General visitor uses of the trails were identified and recorded. A visitor use study was referred to (J. van der Pool n.d.)
- 2.3.4 Resource, maintenance, and operational concerns which have occurred as a result of each trail, its layout, or its use, were assessed and recorded.
- 2.3.5 A public meeting was held in February 2007 to receive comments and answer questions about the Draft Trails Management Plan.
- 2.3.6 Comments about the draft plan shall be received and answered during a public review period required by the California Environmental Quality Act (CEQA).

2.5 California Environmental Quality Act (CEQA)

This document shall undergo a formal public review in 2007 as required by the California Environmental Quality Act (CEQA) to identify potential environmental effects of the plan. The lead agency for this plan is CSP. This document along with an Initial Study will be submitted for public review and to the State Clearing House as part of a mitigated negative declaration, meaning the plan contains potential environmental effects that can be fully mitigated to a level below significance. The plan will be reviewed by the public over a 30-day period. After this period, public comments will be received and responses given by CSP and shall be included in the Appendix (App. 2).

3.0 PURPOSE AND GOALS FOR/OFF THE TRAIL SYSTEM

This Section establishes the purpose for and goals of the trail system at TPSR. These are designed to guide decisions about trail issues and were used to establish the subsequent trail-specific guidelines found in this Plan. The guidelines found in this plan are intended to complement this overall purpose and these goals.

3.1 Purpose for the Trails System

The Purpose for the trail system at TPSR shall be to serve Reserve visitors by providing a means to explore the Reserve's unique environments and features. As a "State Natural Reserve" the protection of natural resources is the primary management goal of the park. Therefore, Reserve trails shall offer a net benefit to Reserve resources by discouraging off-trail use, improving the condition of resources, and promoting a greater public awareness of and appreciation for these resources.

3.2 Trails System Goals

The following trail system goals are intended to complement and fulfill the *Purpose*. These goals apply to the entire trail system:

Goals

- 3.2.1 Trail access shall be provided for acceptable levels of public use, enjoyment and inspiration in a manner consistent with the preservation of natural and cultural resources and features.
- 3.2.2 New trails shall not be developed unless they provide a net benefit to the resources of TPSR. "Net benefit" shall mean that trail development must: 1) lead to a sustained increase in the population number of sensitive species, 2) lead to an increase in the acreage of native habitat, and 3) protect cultural resources.
- 3.2.3 There shall be no substantial gain or loss of trail numbers, length, or area based on currently-authorized trails (year 2005). If a trail or segment of a trail is found to compromise resources, then a suitable re-route should be explored.
- 3.2.4 Trails shall be signed adequately at trailheads to protect resources, minimize confusion, and enhance visitor's experience of Reserve values. Beyond trailheads, trails shall be signed minimally to preserve the views and aesthetic values of the Reserve.
- 3.2.5 Funding for trail staff, labor, tools, and materials is a fundamental need. The implementation of trail repair and improvement projects, as well as reaching these Plan objectives, can only be fully realized if a long-term commitment to staffing and funding is made. Regular staff will have to be augmented by volunteer forces to implement trail monitoring, repair, and improvement projects.

- 3.2.6 Trail maintenance, repairs, improvements, planning, interpretation, signing, and closure policies shall remain consistent with the State Natural Reserve designation (*California Public Resources Code* (PRC) Section 5019.65), CSP Statewide Trail Plan(s), CSP *Trail Plan for Accessibility*, and CSP *Operations Manual* (DOM).
- 3.2.7 Trail routes shall be easily identifiable and offer access to a diversity of Reserve scenery.
- 3.2.8 To minimize user conflicts and maximize appreciation of Reserve values, some trails may be closed to jogging.
- 3.2.9 Staff should work to eliminate unauthorized trails throughout TPSR, especially in the “Extension”, to minimize damage to and loss of resources and avoid user confusion.

4.0 GUIDELINES

The following guidelines are intended to support and fulfill the preceding *Trail System Goals*:

4.1 TRAIL USE

The use of trails at TPSR has increased significantly over the past several years. Although no official records have been kept to date documenting numbers of visitors using Reserve trails, informal surveys by staff and docent volunteers indicate an increase in both peak season and non-peak season trail use. This rise in use corresponds to general visitor counts kept by CSP for TPSR. The reason for this increase can most likely be attributed to an increase in the local population and improved freeway access to the coast from outlying regions. The amount of trail use at TPSR has historically been high as compared to less-populated regions in the state and the trend for increased use is likely into the future as the population of San Diego County continues to grow.



Group tour on Parry Grove Trail

The types of trail use have been changing as well. Increases in active forms of recreation in the region, such as running and cycling, have carried over to TPSR. TPSR is seen by many local residents and office-workers as an ideal training ground because of its proximity, beauty, and favorable trails and terrain. The Reserve road is particularly popular for exercise because it is a steep, challenging route generally protected from high speed vehicle traffic. Other popular trails used for exercise are the Broken Hill Trail, Beach Trail, and Guy Fleming Trail, although several other trails are used less frequently. In the future, new forms of recreation may place new threats or added pressures on trails, infrastructure and natural resources. It

will be the responsibility of CSP staff to insure that potential new trail uses are appropriate in a State Natural Reserve and consistent with the *General Plan*, *CSP Mission*, and this Trails Management Plan. It will also be the responsibility of CSP staff to ascertain if levels and types of trail usage are appropriate in the future.

In addition to active forms of recreation the desire for accessible trail facilities continues to grow in the region. Existing CSP mandates clearly encourage the development or conversion of trails for the disabled at TPSR. Accessible trail conversion or development should be consistent with the preservation of natural and cultural resources.

Learning about TPSR and its unique resources is of interest to an increasing number of local residents, school children, and tourists. The Reserve's interpretive programs and facilities support CSP's mission to provide education to the people of California. Trails play an important role in bringing visitors and Reserve resources together. This type of trail use and interpretation of Reserve resources from trails will likely continue to grow.

4.2 Appropriate Trail Uses

As a State Natural Reserve, the *Public Resources Code* (PRC) Section 5019.65 stipulates that *"improvements undertaken shall be for the purpose of making the areas available, on a day use basis, for public enjoyment and education in a manner consistent with the preservation of their natural features."* Trails are considered an "improvement" for public enjoyment and education, and provide for access to most areas of TPSR. Although current trail use is consistent with this section of the PRC, in the future there may be public pressure for new types of trail uses or an increase in trail use beyond carrying capacities and inconsistent with PRC Section 5019.65. For this reason, the following guidelines are intended to set parameters for appropriate trail use consistent with the PRC, *General Plan*, and CSP goals and policies.

Guidelines

- 4.2.1 The standard of trail use shall be consistent with a "State Natural Reserve." Therefore, if a trail activity or level of use is inconsistent with the preservation of natural or cultural features, the enjoyment of the prime resource values, detracts from or degrades these values, or is unsafe, it shall be deemed inappropriate and discontinued.
- 4.2.2 The following hierarchy shall be used when evaluating the importance of a trail use and order of priority:
 - A. preservation of resources
 - B. interpretation of resources
 - C. promote quality outdoor experiences
 - D. provide recreational value

4.3 Jogging on Trails

With the overall level of trail use increasing and active forms of recreation becoming more prevalent at TPSR, it is becoming more difficult to accommodate active and passive uses at the same time. There have been and continue to be instances where trail walkers are startled, disturbed or endangered by runners passing too quickly and/or closely. This can negatively affect other visitor's enjoyment of the Reserve's primary resources. The *General Plan* recognizes jogging as a use within the Reserve and sets forth the policy that it is appropriate only on designated roadways and roadside shoulders. In addition, the *General Plan* sets forth the policy that, *"The Department shall also eliminate any recreational activity from taking place in the Reserve which is an attraction in itself and which does not directly enhance the enjoyment of the Reserve's primary resources."*



Jogger on upper Beach Trail

Guidelines

- 4.3.1 CSP recognizes that jogging on Reserve trails will continue to be a popular activity and is an appropriate use on trails where other visitor's enjoyment of the Reserve's primary resources is not compromised. It is arguable, however, that jogging is an "attraction in itself and...does not directly enhance the enjoyment of the Reserve's primary resources." For these reasons CSP shall continue to allow jogging on all Reserve trails that are not specifically prohibited from that use.
- 4.3.2 In the event that the activity of jogging clearly and regularly detracts from other visitors' enjoyment of the Reserve's primary resources on a particular trail, then after an evaluation jogging may be deemed an inappropriate and prohibited use on that trail.

4.4 Trails Accessibility

At present, TPSR is considered a "Level 2" park by the CSP Accessibility Section. This means that according to the *Trail Plan for Accessibility in California State Parks (Updated December 2003* CSP Accessibility Section) the goal is to have a minimum of one accessible trail 1/2-mile long and one at least 1-mile long. The Discovery Trail satisfies the first goal of an accessible trail 1/2-mile long. The CSP Accessibility Section has developed a long-term funding plan for the construction or adaptation of a 1-mile long accessible trail in the future.



Accessible path from parking lot to visitor center

Another trail that is moderately accessible is the Whitaker Garden Trail. This trail can become more accessible through an added parking stall at the trailhead and access improvements to the overlook (end of trail). The *General Plan* calls for the Guy Fleming Trail to be "made

available” to the disabled. At approximately 0.7 miles long, this trail is generally level and has the potential to be accessible if the trailhead and sections of the trail are significantly improved. Although not identified in the General Plan, the portion of the Reserve road south of the visitor center to the southern Reserve boundary also has the potential for being identified as an accessible trail. The CSP Accessibility Section may consider one or more of these trails as candidates for future funding.

Guidelines

- 4.4.1 Provide a full range of accessibility while providing for the preservation of resources. "Range" shall mean varying degrees of accessibility with corresponding differences in experience from trail to trail. Some trails shall be as accessible as possible, some moderately accessible, while others less accessible (more rugged). Therefore, the Discovery Trail shall be considered the most accessible trail, the Whitaker Garden Trail the second most accessible, and the Guy Fleming Trail the third most accessible (or potentially accessible). The Beach Trail shall be considered the least accessible (most rugged). In general, the level of accessibility of the remaining trails at TPSR shall fall somewhere in between the Guy Fleming Trail and Beach Trail.
- 4.4.2 Trail accessibility assessment, signing and ratings shall be based on the statewide standards adopted by the CSP. Currently, the UTAP (Universal Trail Assessment Process) serves as this standard (See 4.4.3).
- 4.4.3 Planning and design of accessible trails shall be consistent with the *Trail Plan for Accessibility in California State Parks* (CSP Accessibility Section, 2003) and any updated or future CSP accessibility plans. Information about the UTAP (See 4.4.2) can also be found in this document.
- 4.4.4 Major renovation of trails and major reroutes that are connected to a trailhead or to an accessible portion of an existing trail shall be constructed to meet federal and CSP accessibility guidelines.
- 4.4.5 Improved access to and along the Whitaker Garden Trail shall be accomplished. (See 9.9)

4.5 Overlook Areas

Overlook areas at TPSR are very popular and are an important component of the trail system. They offer outstanding coastal viewpoints and when supplied with guardrails they keep people away from potentially dangerous cliffs and protect resources from off-trail use. Existing developed overlooks are generally in suitable locations and sufficient numbers. It is not anticipated that new overlooks will be needed. However, the following guidelines are provided should



Yucca Point Overlook

replacement overlooks be considered in the future:

Guidelines

- 4.5.1 Consider on-grade solutions as opposed to elevated structures. The benefits can include lower initial costs, reduced maintenance requirements, and improved aesthetics.
- 4.5.2 Keep overlooks back away from cliffs, slopes and unstable areas and avoid structures that cantilever over these areas. Conduct and/or refer to geologic and geotechnical reports while considering designs and placement of overlooks.

5.0 TRAIL CLOSURES AND RE-ROUTES

The trail system on what is now TPSR was formed over a long period of time. Kumeyaay Indians, private landowners, and public entities have each contributed through the years to the formation of the present trail system. Many of the existing trails were created between 1899, when the City of San Diego created the initial Torrey Pines Park, and 1959, when the CSP acquired the park property. Because a majority of the trail system was inherited, the focus of CSP has been on existing trail improvements, maintenance, and realignments, not new trail development. Considering the Reserve's status as a State Natural Reserve, current mitigation requirements for impact to protected habitat and sensitive species, and adequacy of the current trail system, it is likely that CSP will continue this focus.

This section establishes guidelines for evaluating whether a trail or segment of a trail shall be permanently closed or realigned so as to reduce or eliminate resource impacts, ensure public safety, minimize maintenance, and/or improve trail experiences. Specific trail closures of authorized trails (2005) and re-routes are identified in the *Trail-Specific Guidelines* section.

Guidelines

- 5.0.1 If any of the following criteria are evident then the trail shall be re-routed or permanently closed:
 - The trail compromises significant Reserve resources and its repair or improvement would not mitigate this condition.
 - The trail creates a potentially hazardous condition for users and it would be financially or otherwise unfeasible to repair or improve it to a safe condition.
 - The trail is so severely damaged that it cannot reasonably be made serviceable.
 - Closing or re-routing the trail shall not cause a significant, negative effect on Reserve resources.
- 5.0.2 A trail re-route shall be considered and ruled-out before closing a trail.
- 5.0.3 In the event that a trail is documented as traveling through a resource site, it shall be considered for realignment through an area that does not contain significant resources, receive site-specific protection, or abandoned.

- 5.0.4 Closure and rehabilitation of unauthorized (way) trails shall be a priority. Such trails often lead to resource degradation, increased erosion, and trail user confusion.
- 5.0.5 CSP shall only be responsible for trailheads located on Reserve property, not on private lands. However, there may be trail access points that will have continued public use even though they cross private lands. CSP shall be aware of these locations and monitor them for problems that could affect Reserve resources.

6.0 TRAIL MAINTENANCE AND REPAIR

Trail maintenance is the process of keeping a trail at or near its original constructed or intended standards. Many of the trails at TPSR were created prior to CSP ownership and do not meet CSP trail design standards. In some instances they were formed not by design but through historic, informal use. Many of these trails are difficult to maintain because they are steep, direct water down the trail (increasing erosion), or have excessive switchbacks. A re-route of the trail is most often not an option, due to nearby, sensitive resources. These conditions often increase the need for regular trail maintenance, especially in Relative Landslide Susceptibility Area 4 (Johnson, 2004 pp. 25 and 32, Fig. 22).

The purpose of this section is to define annual trail maintenance, Best Management Practices (BMP), and guidelines for prioritizing trail maintenance projects at TPSR.

6.1 Annual Trails Maintenance

Annual trail maintenance is crucial at TPSR because of high use, eroding soils, and poor or lack of initial design of some trails. Trails can quickly become entrenched and act as water courses. Occasionally high winter rainfall can accelerate erosion and lead to gulying of trail surfaces. Annual maintenance can alleviate many of these problems and prolong a trail's durability, as well as avoid future deferred maintenance costs.



Erosion gully on Beach Trail

Guidelines

- 6.1.1 "Annual Trail Maintenance" at TPSR is defined as trail surface repair, clearing drains, brush trimming and clearance, mulching, mending fences and trail delineation, trail sign repair, and stair and overlook repair.
- 6.1.2 A goal of annual maintenance shall be to maximize trail longevity while reducing the need for future maintenance. Trail repairs shall be as sustainable as possible while maintaining aesthetic, and natural and cultural resource values.
- 6.1.3 An annual maintenance budget and schedule, with due consideration of natural and cultural resource monitoring costs and scheduling, shall be completed each year following CSP guidelines and methods.

- 6.1.4 Prior to conducting annual trails maintenance, resource, maintenance, and ranger staff, as well as pertinent volunteers, shall jointly assess maintenance needs and determine the best course of action. In particular, cultural resource staff should be consulted prior to any ground disturbing maintenance activity to avoid new impacts to archeological sites. In addition, resource and maintenance staff shall determine if cut vegetation is chipped on-site or removed.
- 6.1.5 During maintenance activities it may be necessary to temporarily close trails in order to conduct repairs, maintain public safety, and reestablish vegetation. These shall be re-opened as soon as possible. In addition, trail loops and connections to other trails shall be left open as much as possible.
- 6.1.6 Global Positioning System (GPS) database referenced points, or future, more advanced locational devices shall be installed to designate locations along a trail and be used for trail maintenance and monitoring, and for emergency response. These shall be as small and inconspicuous as possible.
- 6.1.7 The CSP shall not conduct any maintenance on non-authorized trails and/or trails on private property.
- 6.1.8 In the case where trails are maintenance-intensive due to poor initial design or progressive tread wear and erosion, the priority shall be to correct deficiencies as opposed to providing continued maintenance.

6.2 Best Management Practices (BMP)

The trails at TPSR are different from any other California State Park because of the unique soils, topography, use patterns, weather conditions, and fact that they exist in a State Natural Reserve. Trail maintenance practices that work at other parks may not be suitable at TPSR. For this reason, the following guidelines are provided to help staff and volunteers determine appropriate, site-specific trail repairs.

Guidelines

- 6.2.1 Major renovation of trails and major reroutes that are connected to an accessible portion of an existing trail shall be constructed to meet CSP and federal accessibility guidelines.
- 6.2.2 Simulate natural water flow patterns and return the flow back to its natural course as soon as possible (except through archaeological sites). Promote water sheet flow across trails where possible. Out-slope trails in all cases except where they lead to a switchback. Where appropriate, install ditch-outs to move water off trails. Avoid the use of water bars as they often lead to increased, down-trail erosion.
- 6.2.3 Trail repairs and reconstruction shall be designed to minimize visual change and the need for regular maintenance, and be as sustainable as possible. Develop repair standards that are efficient and repeatable.

- 6.2.4 Consider the installation of small sediment ponds to contain sediment for erosion control and collection. The containment basin shall blend with the terrain and be out of view as much as possible. Coordinate locations with natural and cultural resource staff.
- 6.2.5 Collect and utilize soils generated from trail projects.
- 6.2.6 Incorporate geologic features on trails as opposed to creating structures over them (if geologic features can remain in a protected state).
- 6.2.7 Imported material used for trail surfacing must be sterile, avoiding introduction of non-native flora, and blend in color and texture with surrounding terrain. Use local material where possible.
- 6.2.8 Consider stepping switchbacks to avoid erosion and gulying of trail surfaces.
- 6.2.9 Because of the highly erosive nature of native soils, slough and berm removal shall be a priority. Limits of this activity shall be reviewed and approved by natural and cultural resource staff.
- 6.2.10 Vegetation shall be trimmed from the trail edge only when it clearly encroaches on the path of travel. Typically, the distance from edge to edge is no greater than four feet. In some instances where the topography or trail tread can only accommodate single file travel, then the vegetation shall be trimmed to no greater than three feet. In general, keep trail widths to a minimum needed for safe access. Consider re-vegetating trails that are over four feet in width.
- 6.2.11 During maintenance activities, consideration shall be given to specimen tree/shrub species as well as sensitive plants that prefer disturbed areas such as the trail edge. Consultation with resource staff to determine limits of disturbance shall occur at this time. Re-seeding of these species shall be conducted when known areas are disturbed.
- 6.2.12 In lieu of replacing dilapidated wooden overlook structures, consider removing them and replacing with an on-grade solution with guardrail. The benefits include improved aesthetics, and reduced maintenance costs.
- 6.2.13 Any areas where native soils are disturbed, or where offsite (including elsewhere at TPRS) materials are introduced, shall be monitored for exotic species and treated if exotic species are introduced. Treatment shall continue until exotics are completely eradicated.



Geologic feature at Red Butte

- 6.2.14 Soils or brush trimmings collected from areas with aggressive exotic species shall not be relocated elsewhere in the Reserve. If they cannot remain in place, they shall be removed to an appropriate, offsite landfill.
- 6.2.15 Brush removal, trimming, or use of noisy equipment shall not take place during state/federally-listed bird breeding season (approximately March 1 to August 30). If this is not feasible, then a survey shall be conducted to determine presence and/or a biological monitor provided.
- 6.2.16 Materials used in trail repair, maintenance, or construction shall not be detrimental to natural resources (e.g., mesh on wattles that gill net reptiles, decomposed granite stabilizer that negatively affects invertebrates or other wildlife). All materials shall be non-toxic.

6.3 Prioritization of Trails Maintenance Activities

The prioritization of trail maintenance activities depends on a number of factors. These include funding and staffing levels, emergency, public safety, and resource protection needs, seasonal rainfall amounts, and levels of use. At TPSR, these factors can change on a day-to-day basis making it difficult to prioritize activities. For this reason, the following guidelines are intended to assist staff in determining these priorities. These guidelines apply to emergency repairs as well as annual maintenance and periodic trail improvements or re-routes.

Guidelines

- 6.3.1 Develop an inventory-based trail budget to prioritize trail repairs. This inventory shall be based, in part, on the classification and ranking of all trails in the Reserve. This classification system is currently in use on a state-wide basis in CSP. An additional factor in the prioritization of trail repairs shall be the criteria established in Section 6.3.2. Also, utilize the list of trail problems developed by the volunteer trail monitoring program when identifying potential repair and improvement projects (See 8.0).



Warning sign on Beach Trail

- 6.3.2 The following criteria (in order of importance) shall be used as a factor in determining the order in which trails are repaired or improved:
1. public safety requirements
 2. protection of resources
 3. unauthorized trails (closure and habitat rehabilitation)
 4. highest usage
 5. availability of funding for a particular trail

6. interpretive/educational needs
7. user experience

- 6.3.3 Encourage funding for trail repairs within CSP as well as from grants and other outside sources.
- 6.3.4 Be aware that beach access trails such as the Beach Trail and Broken Hill Trail will need coastal development permits when major trail work is proposed. In some cases access to the beach will need to be maintained during repairs.
- 6.3.5 Keep lines of communication open with California Indian and Californio descendents during trail projects. In particular, descendent representatives should be informed of any trail work that may affect archaeological sites, historic landscapes, or traditional cultural properties. Coordinate work with a CSP archaeologist.

7.0 TRAILS AESTHETICS

The appearance of human-made elements in the Reserve is a complicated issue because there is a wide range of opinion about aesthetics. The appropriateness of a material or whether it “blends in” with the surroundings is, in some ways, largely subjective to one’s personal tastes. TPSR has a variety of trail materials that have been used through the years. The choice of these materials has been influenced by cost, durability, ease of installation, trends, and personal tastes. The inconsistency of materials has caused TPSR to lack a cohesive aesthetic theme. In addition, some materials clearly do not complement the natural scenery. Instead, they stand out from it. In general, it is important that trail materials blend to the maximum degree possible with Reserve features so as not to detract from a visitor’s experience of the Reserves’ natural features. Uncomplimentary or unsightly trail materials can have a negative effect on a visitor’s appreciation of Reserve values. Furthermore, it is important to have consistent materials so that a unified image is projected to the public.



Bridge on Razor Point Trail

When human-made features are within a State Natural Reserve, they should complement the natural resources of the Reserve. These resources include the natural aesthetic values and vistas. These need to be preserved to maximize the visitor’s experience of those resources as well as to maximize their appreciation and education of all Reserve resources. In addition, appropriately designed materials and structures demonstrate sensitivity to Reserve values as well as resource stewardship.

The following guidelines shall be used while considering potential trail materials, structures such as stairs and overlooks, signs, markers, trail delineation and railings, and other

associated human-made trail elements. The intent of this section is to establish guidelines for trail aesthetics, appropriate trail materials, the aesthetic component of trail feature design, and construction of appropriately appearing structures within the Reserve.

Guidelines

- 7.0.1 Minimize “built” structures and features while maximizing the visitor’s experience of the natural environment. Minimize the amount of any human-made material along or in view from trails. Strive for non-visibility of built features. These features shall be as unobtrusive and inconspicuous as possible. Remove unwanted and unnecessary human-made elements from trails or in view from trails.
- 7.0.2 Materials shall be non-toxic, naturally-appearing, and blend with natural surroundings as much as possible. They shall also be consistent on a particular trail within the Reserve. Material colors and textures shall match nearby vegetation, soils, or other adjacent natural features. Consider historic precedence when choosing material styles so as to maintain continuity and a unified image.
- 7.0.3 Utilize available, on-site materials or ones that match as closely as possible. Do not harvest native materials and avoid off-site materials. If off-site materials are used they shall match on-site materials to the maximum degree possible.
- 7.0.4 Limit trail delineation to areas absolutely needing it (i.e.; areas with off-trail use or expanding disturbance, resource protection needs, or public safety requirements). Trail delineation should be kept 18-inches or below in height and/or below the height of adjacent vegetation. Where possible use only plant re-vegetation as trail barriers.

8.0 TRAILS MONITORING PROGRAM

There is a great need for trail monitoring at TPSR. Trail monitoring is defined herein as observing, assessing, and documenting the condition of trails on a regular basis. It is not possible for Reserve staff to be constantly aware of all trail conditions due to the size of the Reserve and the limited number of staff. The trail system is too extensive and dispersed for staff to patrol on a daily, or even weekly, basis. There is currently no system in place to document progressive trail damage so that a complete understanding of conditions at any particular time is known. By having knowledge of current trail conditions, especially after periods of rainfall, staff can respond more quickly to emergency and progressive trail repair needs. Furthermore, trail monitoring can benefit public safety and resource protection as staff are better informed of current conditions.

The following guidelines establish the purpose, goals, and objectives of a volunteer trail monitoring program:

Guidelines

- 8.0.1 The primary purpose of trail monitoring shall be to increase staff’s awareness of trail problems so that they can be solved as quickly as possible. This will be accomplished by increasing the presence of volunteers on the trails and the reporting of trail conditions through a volunteer trail monitoring program. Currently, the Torrey Pines Docent Society provides this service. An increase in volunteer

presence on trails has the added benefit of enhanced public contact, which helps elevate the public's awareness and enjoyment of Reserve resources, as well as reporting of resource damage.

- 8.0.2 The volunteer trail monitoring program shall report emergencies, violations of Reserve regulations, jeopardized or damaged resources, and unsafe trail conditions to Reserve staff. In addition, they shall record all pertinent trail conditions in a log book on a regular, pre-determined basis. Three times per year (March, June, and September) they shall photo-document and record the location of problem areas. Utilizing the log book and photos they shall develop a list of repair items and make it available to Reserve maintenance and ranger staff. Reserve staff shall utilize this list when prioritizing repair and maintenance projects.
- 8.0.3 The trail conditions to be recorded in a log book include erosion issues such as tread surface wear, gullying, down-cutting, and slope failures, public safety issues such as slip and fall hazards, and structural issues such as disrepair of stairs, overlooks, railings and trail signs.

9.0 TRAIL-SPECIFIC GUIDELINES

Several of the trails at TPSR currently require specific treatment. Each of these is unique and requires treatment guidelines that are responsive to the trail's specific needs. Only trails currently identified as needing specific treatment are included in this section. The following guidelines, in alphabetical order by trail name, are for this purpose:

9.1 Beach Trail (Terminus)

The terminus of the Beach Trail offers the only beach access from the uplands area of TPSR, and vice versa. For this reason, it is one of the Reserve's most popular trails. The trail's condition has been affected through the years by eroding soils and periods of heavy rainfall. Sloughing of soil materials adjacent to and above the trail has been a perennial problem in keeping the trail maintained and open. The trail terminus has a section elevated approximately 15 feet above the beach that has a sheer drop off on one side. For this reason, this trail section is precarious and intimidates some visitors.



Beach Trail (Terminus)

Finding a viable, long-term solution to the problem of reliable access at this location has been a challenge through the years. Factors such as cost, constructability, functionality, and permit-

related issues, have all played a role in determining improvement options. These factors are, at times, in conflict with one another. For this reason, no perfect solution exists.

According to the *CSP Operations Manual*, Natural Resources Section 0307.3.2.1 *Coastal Development Siting Policy*, construction on a sea cliff requires sensitivity to the natural coastal processes such as sea cliff retreat, and objects within this zone shall be expendable or movable:

- *“New structures and facilities located in areas known to be subject to ocean wave erosion, sea cliff retreat, or unstable bluffs shall be expendable or movable.”*
- *“Where existing developments must be protected in the short run to achieve park management objectives, including high-density visitor use, the Department should use the most natural-appearing method feasible, while minimizing impacts outside the threatened area.”*

These CSP policies reflect the coastal development policies of the California Coastal Commission and any development proposals will require a coastal development permit.

The following guidelines are outlined below to provide direction on repair and improvement efforts at the terminus of the Beach Trail.

Guidelines

- 9.1.1 Be aware that repair and improvement projects of the Beach Trail will require Coastal Development Permits as this trail provides coastal access.
- 9.1.2 Design and build a safe, consistent, long-term access to and from the beach at the terminus. This design shall address the following criteria:
 - Provide safe, effective public use.
 - Reduce public exposure to soil movement and bluff failures
 - Blend improvements and/or structures into the surrounding terrain using the most naturally-appearing method feasible
 - Balance cost versus the longevity of the improvement
 - Design to reduce the effects of erosion
 - Obtain Coastal Commission approval
 - Minimize maintenance needs

9.2 Beach Trail and Yucca Point Trail Intersection

The intersection of the Beach Trail and Yucca Point Trail is unnecessarily large, uneven in grade, and confusing to trail users.

Guideline

- 9.2.1 Redesign this intersection to reduce the size of the overall footprint, protect resources, eliminate major changes in grade, avoid user confusion, and improve signage.

9.3 Canyon of the Swifts Trail

The Canyon of the Swifts Trail is popular for several reasons and has been closed for over two years due to unsafe conditions. The trail hugs the southern canyon wall of Canyon of the Swifts, one of the most picturesque canyons in the Reserve, and is an off-shoot of the Razor Point Trail. It offers excellent views of the canyon geology and weathered rock formations making it an ideal place to interpret resources. It is also within proximity to the Visitor Center making it reasonably accessible to most visitors. For these reasons the trail is a favorite of docent volunteers for group tours.



Canyon of the Swifts Trail

A portion of the trail has an elevated wood deck that is in disrepair and the retaining wall near its footings has failed, compromising the structural integrity of the deck. The trail is located on a geologically unstable hillside and is susceptible to soil movement during wet periods. Because of this, the trail will continue to require a high degree of maintenance and may pose risks to visitor safety.

Guidelines

- 9.3.1 Permanently close the Canyon of the Swifts Trail and re-vegetate the trail surface.
- 9.3.2 Install overlooks at each end of the trail for viewing into the canyon.

9.4 Daughters of the American Revolution Trail (D.A.R. Trail)

The D.A.R. Trail forms a loop along the western ridge of the Extension and meets up in two places with the Mar Scenic Trail. An unmarked trailhead at the end of Hidden Pines Lane provides unofficial access to a spur trail that connects with the D.A.R. Trail. Currently, it is unclear where the State Reserve boundary lies and who owns the property in this trailhead area.

Guidelines

- 9.4.1 Conduct a survey and title search of the property to determine ownership. If owned by the State, sign and maintain the trail according to CSP standards. If privately owned, support efforts to acquire the property.

9.5 Discovery Trail

The Discovery Trail is approximately one-half mile long and designated by the CSP Accessibility Section as an accessible trail. The trail forms a relatively level loop featuring inland and coastal views and an interpretive panel provides accessibility information at the

trailhead near the visitor center. This trail currently offers access for wedding ceremonies at the west overlook area of the trail. Additional accessibility improvements are currently needed.

Guidelines

- 9.5.1 Support the use of the Discovery Trail for interpretation and tours, as this trail is relatively wide, close to the visitor center, short, accessible, and suitable for large groups.
- 9.5.2 Complete accessibility improvements on the trail and maintain the surface treatment so as to continue to accommodate wheelchairs, while keeping the trail as natural in appearance as possible.
- 9.5.3 The Discovery Trail shall remain accessible for wedding ceremonies in the west overlook area. These activities shall be limited to this trail and the High Point Trail while restricted on other trails at TPSR.



Discovery Trail – West Side

9.6 Guy Fleming Trail

The Guy Fleming Trail traverses through an area of TPSR with very high scenic and resource values. The trail forms a relatively level loop with no through access. There continue to be repeated, documented instances of hikers being startled, disturbed and/or endangered by joggers passing too closely and quickly.

The *General Plan* recommends that the trail be made available to the disabled. The CSP Accessibility Section plans to fund the adaptation of one trail of at least one-mile long. The Guy Fleming Trail, although shorter at 0.7 miles, could accommodate this plan.

Guidelines

- 9.6.1 Because the Guy Fleming Trail traverses through an area of TPSR with very high scenic and resource values, has no through access, has repeated instances of hikers being startled and endangered by joggers, and is recommended for being made available for the disabled, jogging shall be prohibited on this trail.
- 9.6.2 Support the *General Plan's* and CSP Accessibility Section's accessibility goals for the Guy Fleming Trail.

9.7 High Point Trail

The High Point Trail is a short route from the Reserve road that leads to the highest point in TPSR. This area offers excellent views and is a location for wedding ceremonies and cremation memorials.

Guideline

- 9.7.1 The High Point Trail shall continue to be made available for wedding ceremonies and cremation memorials. These activities shall be limited to this trail and the Discovery Trail and restricted elsewhere in the Reserve.

9.8 Mar Scenic Trail – Adjacent Drainage Channel

The Mar Scenic Trail runs alongside and, at times, into the major drainage channel for the Extension Area. This drainage carries water from within the extension and also handles runoff from the adjacent city streets. 21 gabion weirs that were built in the 1970's to contain sediment have failed and have increased the problem of water side cutting the channel. Sedimentation at the downstream end of the drainage continues to be a problem as it enters the adjacent private property.



Drainage channel at Mar Scenic Trail with weir

Guideline

- 9.8.1 Work with the City of San Diego to reduce runoff and contain sediment on adjacent city streets.
- 9.8.2 Consider the installation of permeable “brush boxes” in the drainage channel (see App. 3 for diagram and description). The non-functioning weirs should be removed.

9.9 Whitaker Garden Trail

The Whitaker Garden Trail is a short, relatively level, mostly accessible trail near the visitor center that incorporates a native plant demonstration garden (Whitaker Garden). The trail links up with the eastern end of the Parry Grove Trail. The terminus of the Whitaker Garden Trail is an excellent coastal viewpoint. However, this section is not currently accessible to wheelchairs due to rough trail conditions and an extensive “dip” in the trail.

Guideline

- 9.9.1 Make the Whitaker Garden Trail accessible from the trailhead to the overlook. Install one van-accessible parking stall along the Reserve road shoulder at the trailhead. Build a new, short, accessible trail segment from this parking area to the current trail and close the existing inaccessible trail section to the road. Improve access to the overlook. Re-vegetate areas where pedestrian traffic has excessively widened the trail.

9.10 Via Grimaldi Area

Via Grimaldi is a road on the southeastern side of the Extension that acts as an unofficial access area. Visitors must cross private land to get into the Extension and because of the many unauthorized trails located there it is difficult to control access. Some resource damage is occurring as a result of these multiple access points.

Guideline

- 9.10.1 Close the unauthorized access points off of Via Grimaldi and monitor for resource damage.

9.11 Los Peñasquitos Marsh Area

Currently, the only trail in the Los Peñasquitos Marsh Area is the South Marsh Trail, which skirts the south side of the marsh. There is a lack of safe access to the west end of the trail because of high speed vehicle traffic on North Torrey Pines Road. In addition, resource damage is occurring on the west end of the trail where it goes into the marsh and is inundated at high tides.

The multi-use Trans-County Trail, which is planned to extend from the Salton Sea to Torrey Pines State Beach, is proposed to travel along Carmel Valley Road on the north side of the marsh. Coordination and planning is needed to make sure that trail uses complement those at TPSR and resources are protected.

Guidelines

- 9.11.1 Work with local agencies and planning groups to create safe access to the west end of South Marsh Trail. Also, re-align the trail out of the marsh high-tide line while avoiding archeological resources.
- 9.11.2 Work with Trans-County Trail planning organizations to implement this trail. Consider opportunities for interpretation of Los Peñasquitos Marsh as well as resource protection needs.

9.12 Red Ridge Loop Trail

The Red Ridge Loop Trail is located in the eastern portion of the Extension and is redundant to the Red Ridge Trail. Archaeological and natural resource damage has occurred as a result of the use of this trail.

Guideline

- 9.12.1 Permanently close the Red Ridge Loop Trail and re-vegetate the trail surface.

10.0 FUTURE PLANNING EFFORTS

This section defines recommended trail planning efforts that are beyond the scope of this Trails Management Plan and are intended to provide additional guidance in conjunction with plan recommendations.

10.1 Trails Funding

In recent years state funding of much-needed trail repairs has been insufficient and has not kept pace with increasing use. Consequently, many necessary repairs must be deferred for long periods of time which often leads to progressive trail damage. CSP recognizes the

importance of trails to the overall mission at California State Parks. For this reason, there is a great need for additional staffing, volunteer efforts, and funding for trail repair and improvement projects.

- 10.1.1 Create a plan for developing funding sources benefiting TPSR trails. As the non-profit foundation that provides financial support to TPSR, The Torrey Pines Association may assist CSP in developing this plan.

10.2 Reserve Road

The Reserve road traverses the Reserve from the intersection of North Torrey Pines Road (Reserve entrance) to the southern boundary and is approximately 1.6 miles long. Originally built in 1915, the historically named “Torrey Pines Park Road” is listed on the National Register of Historic Places (Bevil, 1998). This road is currently open to vehicles up to the western parking lot. From this point south to the Reserve boundary it is open to CSP vehicles only and used as an undesignated trail. The entire Reserve road is a very popular unofficial trail for hikers, bikers, and joggers. It is used to access the upland areas of the Reserve, trails, and to pass through the Reserve, and it is a popular exercise route because it is paved, wide, steep, and scenic. The Reserve road is becoming increasingly unsafe as greater numbers of vehicles, hikers, joggers, and bicyclists compete for space on the road. Cyclists are particularly vulnerable to accidents when they travel down the Reserve road at high speeds.

Guidelines

- 10.2.1 Develop and implement a transportation/trail plan for the Reserve road. The overall goal should be to provide a viable alternative transportation system to and from the visitor center while offering safer access for people on foot or bike. Consider the option of closing the Reserve road to public vehicles (except emergency and CSP vehicles) and establishing a transport system for Reserve visitors and volunteers. In addition, consider the designation of one lane of the Reserve road to an official trail for hikers, joggers, and bicyclists and limiting bicycle access to one direction (uphill). Determine the potential for a concession-run transportation operation. Some factors to consider are start-up and operating costs, accessibility, staff involvement, noise, interpretation, and visitor safety. Consider the opportunity to interpret TPSR while providing transport to the visitor center.
- 10.2.2 Prior to implementing a transportation/trail plan, consider the option of designating the Reserve road as one-way only for private vehicles, allowing entrance at the South Beach parking lot through to an exit at the southern Reserve boundary. Some factors to consider are visitor safety and coordination with the City of San Diego.
- 10.2.3 The CSP Accessibility Section has identified the need and potential funding for a 1-mile long accessible trail at TPSR. Look at the feasibility for a portion of the Reserve road from the upper parking lots to the southern Reserve boundary to be re-designated as this accessible trail.

10.3 Interpretational/Educational Component of Trails

Trails play a vital role in bringing visitors “in touch” with Reserve resources. They are one means by which people learn first-hand about important Reserve values. This section addresses the interpretational and educational goals of the Reserve as they relate to trail use. The intent is to supplement any CSP-wide, District-wide, or Reserve-specific interpretation goals with the following guidelines.

Guideline

10.3.1 Produce an interpretive plan for TPSR that addresses the use of trails for interpretational/educational purposes and considers the following issues:

- Encourage the use of the Discovery Trail for interpretational/educational purposes for people with limited mobility or disabilities as it is close to the visitor center, relatively short, wide, and accessible.
- In order to not detract from the Reserve’s natural and cultural values, physical interpretive features like markers, numbered posts, panels, signs, plaques, etc., should be placed near Reserve buildings or trailheads and minimized on trails.
- Existing interpretive markers such as those on the Perry Grove Trail and Margaret Fleming Nature Trail should be considered for removal.
- Include appropriate interpretive themes for each trail, effective methods or media to deliver the interpretive themes, and mechanisms for implementation.
- The process for developing this plan should include stakeholders, staff, volunteers and relevant documents such as the *General Plan* and interpretive prospectus.



Interpretive Panel at Discovery Trail (West Parking Lot)

11.0 APPENDIX

App. 1 State Natural Reserve PRC Section 5019.65(a) Definition

State Natural Reserves, consisting of areas selected and managed for the purpose of preserving their native ecological associations, unique faunal or floral characteristics, geological features, and scenic qualities in a condition of undisturbed integrity. Resource manipulation shall be restricted to the minimum required to negate the deleterious influence of man.

Improvements undertaken shall be for the purpose of making the areas available, on a day use basis, for public enjoyment and education in a manner consistent with the preservation of their natural features. Living and nonliving resources contained within State Natural Reserves shall not be disturbed or removed for other than scientific or management purposes.

App. 2 Public Comments and CSP Responses During CEQA 30-Day Review Period (To be completed in 2007)

App. 3 Brush Box Diagram (Mar Scenic Trail – Adjacent Drainage Channel)

Brush boxes utilize live or dead vegetation to form permeable barriers to water movement. They should be placed at regular intervals with each successive box slightly lower than the previous. As water flows through these boxes the sediment is deposited behind the box so that it is conserved on site. The locations require careful selection as they must accommodate a corresponding widening and/or elevating in the flow profile.

App. 4 Reserve Road Alternatives

The following alternatives were evaluated while developing the guidelines presented in Section 10.2:

11.4.1 "Do Nothing" (Maintain public vehicle access and use Reserve road as a defacto trail for all users). *Pros:* 1) No cost, 2) No restrictions in existing use. *Cons:* 1) Continued public safety concerns, 2) Conflicts between cars, bikes, pedestrians potentially increasing with time.

11.4.2 "One Way Road" (Establish one-way, public vehicle traffic in one lane and establish an official trail for all users in the other lane)
Pros: 1) Would establish a wide trail on existing hard surface, 2) Accommodates vehicles, buses, parking at visitor center, 3) Improves public safety with one-way traffic, 4) Enforceable.
Cons: 1) Creates new intersection of Reserve road and N. Torrey Pines Road at south end of park, 2) Road easement with City of San Diego required, 3) Removal of eucalyptus necessary; 4) Would require a new roadway including fill embankment and possible retaining wall; 5) Potentially significant costs; 6) Coordination with City

of San Diego and Golf Course may be necessary; 7) Realignment of entrance to golf course maintenance facility necessary; 8) Additional intersection control (two-way stop) necessary; 9) Signal maintenance agreement with City required; 10) A loop road would cause increase driving/patrol response time.

11.4.3 "Signing" (Install pedestrian directional signs to regulate location of pedestrian crossing points)

Pros: 1) Relatively low cost; 2) Some maintenance replacement required.

Cons: 1) May increase enforcement needs; 2) May increase public confusion; 3) May be ineffective.

11.4.4 "Curb and Pedestrian Pathway" (Install a paved pedestrian pathway and curb on the east side of the Reserve road)

Pros: 1) Relatively low cost, 2) Increases public safety, 3) Facilitates improved drainage/erosion control.

Cons: 1) Potential impacts to archaeological resources, 2) May increase enforcement, 3) May be ineffective (many visitors may still use roadway); 4) May pose a safety concern as users step over curb in the process of passing slower users.

11.4.5 "New Pedestrian Trail"

Pros: 1) Would provide an enforceable alternative for pedestrian traffic at one of the highest vehicle-bike/pedestrian conflict section of roadway, 2) Scenic.

Cons: 1) Resource concerns, 2) moderate costs, 3) Many visitors may still use roadway - strollers, bikes, runners, 4) introduces another trail to maintain, 5) does not route pedestrians away from the second highest pedestrian/vehicle-bike conflict sections, 6) inconsistent with PRC and this Trails Management Plan.

11.4.6 "Tram" (Operate a public transportation system from the South Beach parking lot to the visitor center and vice-versa)

Pros: 1) Would portion the existing roadway to pedestrian (striped) and vehicle-bike use 2) provides opportunity for increased interpretation/visitor contact, 3) increases safety by eliminating the majority of vehicles, 4) Would allow for and improve the already high use by trail users.

Cons: 1) High operating costs, 2) Would need concession or volunteer effort, 3) Would not eliminate pedestrian/bike/vehicle conflicts because two way road width would still be required and as a pedestrian zone would absorb a significant portion (absorb 4'-6' of an existing 18'-22' wide road) the already somewhat narrow roadway width.

App. 5 Beach Trail (Terminus) Alternatives

The following alternatives were evaluated while developing the guidelines presented in Section 9.1:

11.5.1 "Do Nothing" (Beach access remains as-is)

Pros: 1) Unofficial trail remains open and accessible to beach

Cons: 1) Continued public safety issues (slope failures, slip and falls), 2) Continued maintenance issues

11.5.2 “Down The Chute” (Build a stair system down the chute to access beach)

Pros: 1) Reduced exposure to rock falls, 2) Return trail to historic location shown in 1931 aerial photograph (J. Johnson, 2004, Section 4.3), 3) May be possible without a permanent structure, 4) Could be done to fit in aesthetically with topography/soils thereby remaining consistent with CSP coastal development policies.

Cons: 1) Pathway is a drainage course; 2) A large structure/stairway could be expensive and may not get coastal development permits, 3) Lower section may need to be non-permanent

11.6 “Alternate Location For Beach Access” (Find and develop an alternate location for beach access and close the existing access)

Pros: 1) May simplify access, 2) May minimize constraints due to difficult bluff topography

Cons: 1) There may not be a viable alternative for access to beach because of topography, 2) Possible resource concerns in new trail access, 3) May just be moving from one difficult topographic area to another.

12.0 TRAIL MAPS

Figure 1 Trails System Map - TPSR

Figure 2 Trails System Map – Extension Area

Figure 3 Trails System Map – Main Reserve Area

13.0 REFERENCES

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With thanks to:

Members of the Torrey Pines Docent Society and the Torrey Pines Association, and the San Diego Coast District, North Sector, and Torrey Pines State Reserve staff, who provided considerable knowledge and support