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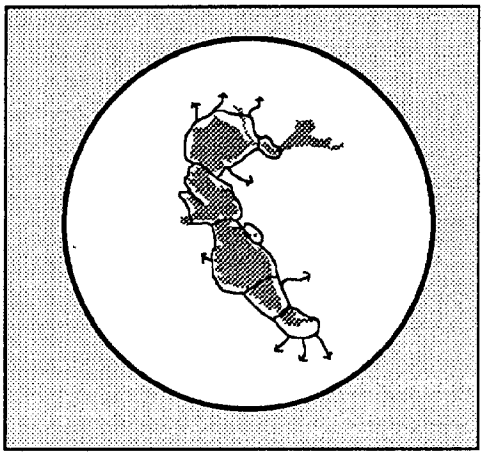
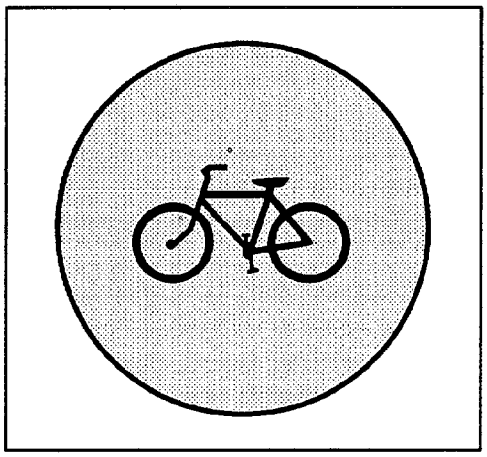
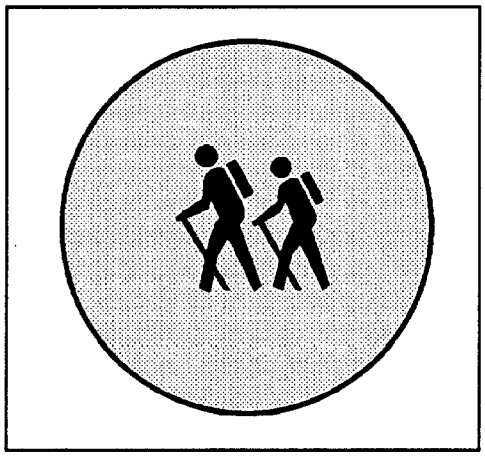
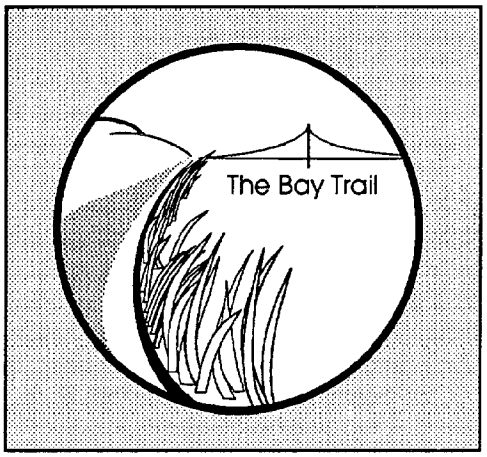
Bay Trail Plan









January, 1989

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Acknowledgements i

Executive Summary iii

Section I: Introducing the Bay Trail I-1

The Vision of a Trail Around the Bay I-1
Making the Bision a Reality I-2
Benefits of the Bay Trail I-3

Section II: Planning the Bay Trail II-1

Physical Setting of the Bay Trail II-1
The Bay's Natural Environments II-1
The Bay's Built Environments II-2
Institutional Setting for Bay Trail Planning II-4
Framework for Developing the Bay Trail Plan II-5

Section III: Bay Trail Plan Recommendations III-1
Bay Trail Alignment III-1
Bay Trail Policies III-16
Meeting the Mandate of SB 100 ..... III-23
Providing Connections to Existing Park and RecreationFfacilities III-23
Providing Links to Existing and Proposed Transportation Facilities III-23
Protecting Sensitive NaturalEenvironments III-30

Section IV: Next Steps: A Framework for Implementation IV-1
Financing Challenges IV-1
Implementation Strategies—Preliminary Recommendations IV-2
Next Steps IV-3

Section V: References V-1

Section VI: Appendices
Senate Bill 100 ..... Appendix A
Bay Trail Committees ..... Appendix B

List of Figures
Summary Figure v
Figure II-1: Bay Area Wetlands II-3
Figure III-1: Proposed Bay Trail III-2
Figure III-2: Bikeway Classifications III-5
Figure III-3: Bay Trail Alignment III-6
Figure III-4: Bay Trail Park Connections III-24
Figure III-5: Water Trail Connections III-28
Figure III-6: Transportation System Connections III-29

List of Tables
Table III-1: Bay Trail System Length III-4
Table III-2: Bay Trail Policies III-16
Table III-3: Public Lands Accessible from the Proposed Bay Trail III-25
Table III-4: Boating and Fishing Facilities of the San Francisco and San Pablo Bays III-30
Table IV-1: Trail Construction Cost Estimates IV-2

The Bay Trail Plan

The Bay Trail Plan proposes development of a regional hiking and bicycling trail around the perimteter of San Francisco and San Pablo Bays. The Plan was prepared by the Association of Bay Area Governments pursuant to Senate Bill 100, which mandated that the Bay Trail:

- provide connections to existing park and recreation facilities,
- create links to existing and proposed transportation facilities, and
- be planned in such a way as to avoid adverse effects on environmentally sensitive areas.

Bay Trail Alignment

This plan proposes an alignment for what will become a 400-mile recreational "ring around the Bay." When developed, the Bay Trail will be a trail *system* comprised of three components:

- spine trails, encircling the Bay and creating a continuous recreational corridor which links all nine Bay Area counties;

- spur trails, providing access from the spine trail to points of natural, historic and cultural interest along the Bay shoreline; and

- connector trails, providing restricted access to interpretive trails in environmentally-sensitive areas along the shoreline and connections to recreational opportunities as well as residential and employment centers inland from the Bay.

Approximately one-third of the trail already exists, either as hiking-only paths, hiking and bicycling paths or as on-street bicycle lanes.

Bay Trail Policies

The Bay Trail Plan also contains policies to guide selection of the trail route and implementation of the trail system. Policies fall into five categories:

1) *Trail alignment policies* reflect the goals of the Bay Trail program—to develop a continuous trail which highlights the wide variety of recreational and interpretive experiences offered by the diverse bay environment and is situated as close as feasible to the shoreline, within the constraints defined by other policies of the plan.

2) *Trail design policies* underscore the importance of creating a trail which is accessible to the widest possible range of trail users and which is designed to respect the natural or built environments through which it passes. Minimum design guidelines for trail development are recommended for application by implementing agencies.

3) *Environmental protection policies* underscore the importance of the San Francisco Bay's natural environment and define the relationship of the proposed trail to sensitive natural environments such as wetlands.

4) *Transportation access policies* reflect the need for bicycle and pedestrian access on Bay Area toll bridges, in order to create a continuous trail and to permit cross-bay connections as alternative trail routes.

5) *Implementation policies* state that successful implementation of the Bay Trail Plan will require continuing trail advocacy, oversight, and a structure for trail management.

Overview of Issues

When completed, the Bay Trail will create connections between more than 90 parks and publicly-accessible open space areas around San Francisco and San Pablo Bays. By providing access to a wide array of commercial ferries and public boat launches, the trail will establish connections to "water trails" which will enable outdoor enthusiasts to appreciate the Bay not only from the shoreline, but from the water as well.

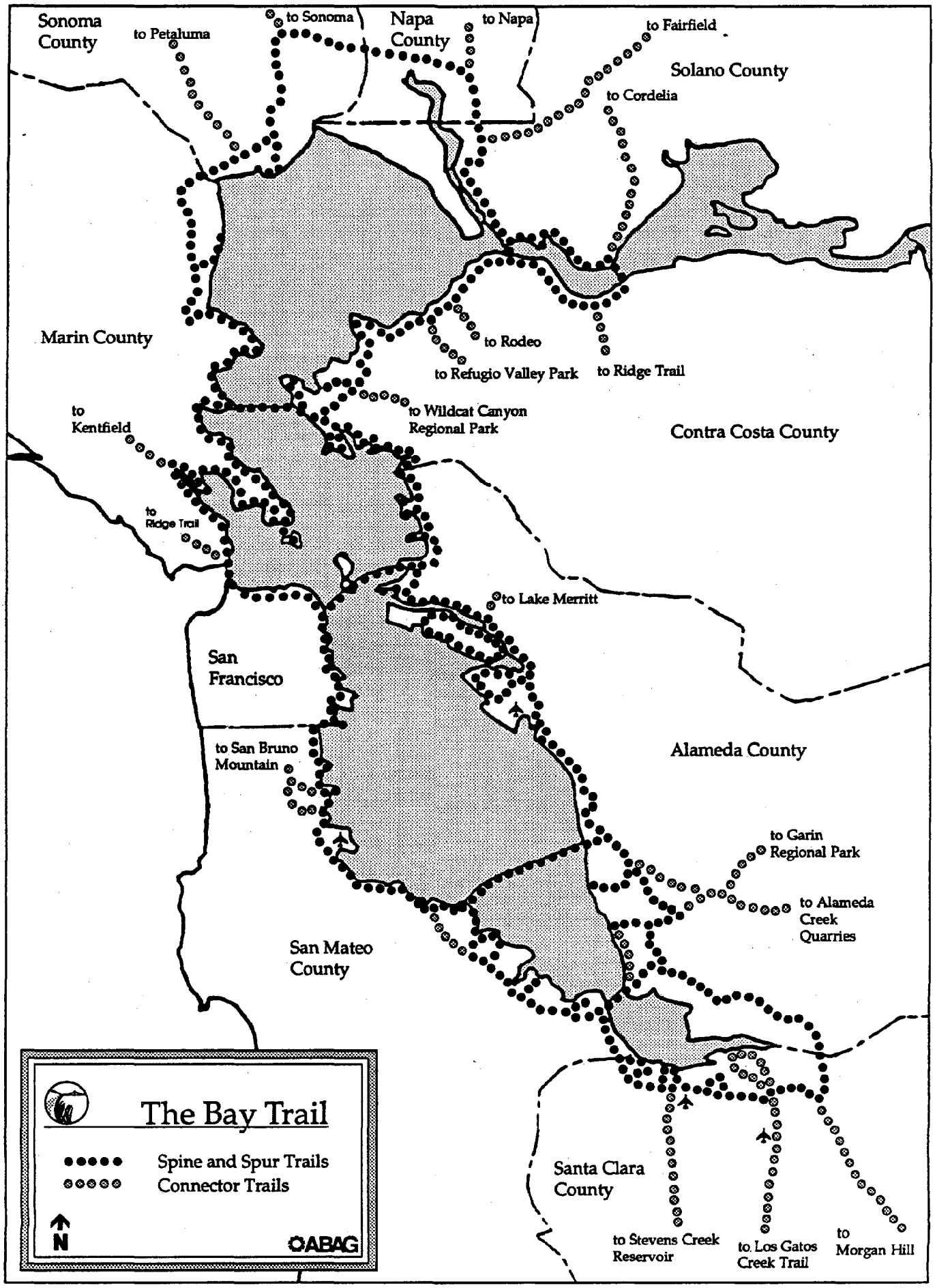
Trail access across all seven of the Bay Area's toll bridges is proposed, defining a series of trail "loops" which will provide a variety of excursions for hikers and bicyclists of varying abilities. To increase options for trail access from homes and worksites, the proposed alignment provides connections to local and regional transit--BART, Santa Clara County's light rail trolley system, and Caltrain--which can themselves become extensions of the Bay Area's recreational network. Trail connections to existing and planned local bikeway systems will encourage recreational as well as commute bicycling, as safer bicycle networks are established and expanded.

While the trail will provide access to wetlands and other sensitive natural features along the Bay's shoreline, Bay Trail policies were designed specifically to protect these areas. Existing bay fill (primarily in the form of levees) provides shoreline trail access in many locations, and trail design policies require that trail design, construction and use be appropriate to the surroundings.

Relationship to Other Plans and Policies

Bay Trail policies and design guidelines are intended to complement, rather than supplant the adopted regulations and guidelines of local managing agencies. Implementation of the Bay Trail will rely on the continued cooperation among shoreline property owners, the hundreds of local, regional, state and federal agencies with jurisdiction over the trail alignment, the numerous trusts and foundations which operate in the region, and the countless environmental and recreational interests whose members care deeply about the future of the Bay Area.

This extraordinary regional cooperation has already begun with the work of the Bay Trail Advisory Committee, which drafted the recommendations presented here, and the ABAG Regional Planning Committee and Executive Board, which will adopt the final plan. Specific recommendations for structuring a framework for Bay Trail implemention which can build on these initial efforts are currently being developed by the Bay Trail Advisory Committee, and will be incorporated into the final Bay Trail Plan.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to Fairfield
Solano County
to Cordelia
Marin County
to Rodeo
to Refugio Valley Park
to Ridge Trail
to Wildcat Canyon Regional Park
Contra Costa County
to Kentfield
to Ridge Trail
to Lake Merritt
San Francisco
to San Bruno Mountain
Alameda County
to Garin Regional Park
to Alameda Creek Quarries
San Mateo County
Santa Clara County
to Stevens Creek Reservoir
to Los Gatos Creek Trail
to Morgan Hill
The Bay Trail
Spine and Spur Trails
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Section I
Introducing the Bay Trail

- **The Vision of a Trail Around the Bay**
- **Making the Vision a Reality**
- **Benefits of the Bay Trail**

You always remember the first time you saw San Francisco Bay.

It comes back to you in later years with vivid intensity: the sudden, breath-taking impact of that initial moment when the great bay was first spread out before you, fresh and new and shining like a banner and a herald of things to come.

Even if you were a native of the area and grew up on these shores, it is probable that there was some single instant, on a bridge or a hilltop or some unfrequented beach, when you suddenly became conscious of the bay, when you really saw it for the first time--no longer an accustomed part of the background but a thing of beauty and power that had somehow become part of you.

Or, if you came from another part of the country, you may have seen it first from the air or from one of its highway approaches or from the deck of the Oakland ferry at sundown, when the water around you was luminous with crimson fire and vertical patterns of lights glowed from the darkening towers of San Francisco. Then, suddently, no matter what your age, you were young, and the bay around you and the city beyond it were the future, full of great and glowing promise.

--Harold Gilliam[1]

The Vision of a Trail Around the Bay

When Padre Pedro Font, accompanying Juan Bautista de Anza in 1776, first viewed San Francisco Bay, he described it as "a prodigy of nature." De Anza himself referred to the Bay as "a marvel of nature [which] might well be called the harbor of harbors."[2]

With a keen sense of the Bay's poential, Richard Henry Dana prophesied:

> If California ever becomes a prosperous country, this bay will be the center of its prosperity. The abundance of wood and water; the extreme fertility of its shores; the excellence of its climate, which is as near to being perfect as any in the world; and its facilities for navigation, affording the best anchoring-grounds in the whole western coast of America--all fit it for a place of great importance.[3]

---

[1] Harold Gilliam, San Francicso Bay, Doubleday & Co., Garden City, New York, 1957, pp. 46-47.
[2] Ibid., pp. 51-52.
[3] Ibid., p. 57.

While the face of the Bay has changed greatly since it was described by early explorers and adventurers, its importance as the physical and emotional focus of the region has not. The ancient peoples of California—the Ohlone, Coast Miwok and Patwin Indians—were drawn to the richness of hunting and fishing the Bay provided. Later, with European exploration and trade along the Pacific Coast, sailors and explorers marveled at the Bay's extraordinary beauty and prized its natural harbor as a center for exploration and commerce. As the region began to modernize, industrial activities proliferated along the shoreline, and commercial waterfronts developed in response to the region's increasing prominence and prosperity. Now, although industry and commerce still occupy strategic portions of the Bay's shoreline, public attention increasingly is being placed on recreational and open space uses at the water's edge.

Enhancing opportunities for public access to the bayshore became a State priority in 1965 with the passage of the McAteer-Petris Act. Establishment of the San Francisco Bay Conservation and Development Commission (BCDC), signalled State recognition of the Bay's importance and a governmental commitment to enhancing opportunities for public access to this extraordinary natural resource.

Progress in this respect has been startling. In 1965, only four miles of the Bay shoreline was accessible to the public. After only 20 years, this figure had grown to more than 100 miles, due to the combined efforts of BCDC and initiatives by local, regional, state and federal agencies which created new shoreline recreational opportunities throughout the Bay Area.

With the proliferation of public access, the value of enhancing the recreational experience by creating a network of accessways has been increasingly apparent. BCDC's Bay Plan underscores this need:

> Federal, state, regional and local jurisdictions, special districts, and the San Francisco Bay Conservation and Development Commission should cooperate to provide new public access, ***especially to link the entire series of shoreline parks and existing public access areas*** to the extent feasible without additional Bay filling or adversely affecting natural resources.[1]
> *(Public Access Policy #8, emphasis added)*

Making the Vision a Reality

The dream of continuous access around the Bay moved one step closer to reality in the fall of 1987, when Senate Bill 100 became law. Conceived and authored by State Senator Bill Lockyer, the "ring around the Bay" legislation received widespread support from local agencies and organizations throughout the San Francisco Bay Region, and was coauthored by the entire Bay Area legislative delegation. Passage of SB 100 brought State support and planning funds to the project and initiated the regional planning program which has resulted in the recommendations presented here.

SB 100 proposed that a plan be developed for a bicycling and hiking trail around San Francisco and San Pablo Bays. The legislation directed the Association of Bay Area Governments (ABAG), in cooperation with a wide array of local and regional agencies, environmental organizations and recreational interests, to develop and adopt a plan and implementation program for what has become known as the Bay Trail. The complete text of SB100 appears in Appendix A. The principal provisions of the measure were:

- to provide connections to existing park and recreation facilities,
- to create links to existing and proposed transportation facilities, and
- to plan the trail in such a way as to avoid adverse effects on environmentally sensitive areas.

Section III describes how the proposed trail alignment and policies meet the mandate of SB 100.

---

[1] San Francisco Bay Conservation and Development Commission, San Francisco Bay Plan, p. 28.

Benefits of the Bay Trail

Trails are playing an increasingly prominent role in recreation planning for many reasons. Trails serve multiple purposes: providing opportunities for recreation and exercise near the home and the workplace, creating visual amenities in developed areas, offering alternatives for shorter commute and shopping trips, and creating friendlier, more human-scale connections between communities.

The Bay Trail will offer Bay Area residents and visitors improved access to the Bay and enhanced opportunities to enjoy of the full range of the region's natural, recreational, historic and cultural resources. It will create an enjoyable way for Bay Area residents to learn more about the Bay and to appreciate its many facets. It will provide an incentive for expanding public access to the shoreline, and preservation of the Bay's natural resources. It can create recreational and aesthetic amenities for local economic development and waterfront planning projects, and will focus increased attention on existing waterfront commercial and recreation areas.

By connecting existing parks and recreation facilities, the Bay Trail can provide foot and bicycle access to these areas, offering an alternative to increased automobile travel to the shoreline. Where the trail expands the region's network of bikeways, it will create new commute alternatives for those who might prefer to commute to work by bicycle. It will reinforce the recreation potential of the region's transit systems, by linking recreational destinations along the trail to bus service throughout the Bay region, and to rail transit services, such as BART, the Santa Clara County light rail system, and Caltrain. Opportunities for additional connections will be explored as other transit links become available.

Finally, the Bay Trail will reinforce the Bay Area's growing sense of regionalism, by underscoring the connection all Bay Area communities share—the connection to San Francisco Bay.

Why trails are increaing in popularity:

- *As land values increase and land supplies diminish in the face of continued urbanization, new recreational opportunities in the traditional form of parks are more difficult and expensive to provide. Trail development is an attractive alternative, particularly in urban areas, where linear rights-of-way may already exist along flood control channels and transportation facilities.*

- *Heath-conscious Americans are seeking ways to fit exercise into their busy schedules. Lunchtime recreation and exercise is growing in popularity, increasing the demand for recreation facilities at the workplace. Trails are well-suited to serving this work-based recreational need.*

- *As people age or experience injuries from more strenuous forms of recreation, they are turning to lower-impact forms of exercise. Walking provides a wide variety of health benefits for people of all ages and abilities.*

- *More than ever before, employers are recognizing the relationship between a healthy workforce and a productive business. Moderate exercise promotes employee health and relieves stress, thus reducing lost productivity due to illness and absenteeism.*

Section II
Planning the Bay Trail

- **Physical Setting of the Bay Trail**
- **Institutional Setting for Bay Trail Planning**
- **Framework for Developing the Bay Trail Plan**

Physical Setting of the Bay Trail

The San Francisco Bay Area is one of the most highly urbanized estuaries in the world. Eight counties and thirty-six cities touch the Bay shoreline. Many more communities are connected to the Bay by the network of rivers, streams and creeks which flow into the Bay. Despite the fact that the majority of the 5.8 million people who now live in the San Francisco Bay Area live within five miles of the Bay, general appreciation and understanding of the Bay and its pivotal importance to the region is surprisingly limited.

As a natural resource, the San Francisco Bay Area owes its famous climate to the Bay, as its open expanse of water moderates extreme heat and cold, creating the moderate climate Bay Area residents enjoy. Wildlife in the Bay is remarkably diverse. The Bay's mudflats and vegetation provide food, shelter and nesting habitat for the birds which follow the Pacific flyway, the migratory path used by millions of birds each year as they travel south from the arctic. Fifty species of these migratory birds remain in the Bay Area during the winter; another three dozen are year-around residents of the Bay.

As a living classroom for the study of natural history, the Bay is an extraordinary resource for as diverse a group as scientists, university students and elementary school children who participate in the broad range of educational programs offered at interpretive centers scattered throughout the region.

San Francisco Bay continues to serve as an important economic resource for the region. Thriving ports, commercial waterfronts, and industrial uses along the Bay are vital components of the Bay Area's economic diversity. Each of these natural and built environments poses a variety of opportunities and challenges to the development of aregional recreational trail system such as the Bay Trail.

The Bay's Natural Environments

Of the Bay's natural environments, wetlands are one of the most prevalent and environmentally valuable, producing the basic nutrients that form the foundation of the food chain. Where the flow from creeks and rivers blend with the ocean tides, the nutrient levels are particularly rich. The marshes and mudflats along the San Fancisco Bay shoreline are, therefore, a source of food and shelter to a wide variety of fish and wildlife.

The San Francisco estuary has historically been the largest contiguous tidal marsh system on the Pacific Coast of North America.[1] Although wetlands were once common along the bayshore, they are relatively scarce now, having diminished by 95 percent since the 19th century. Despite this, the approximately 31,360 acres of undiked marsh that remain represent 40 percent of all salt marshes in the state.[2]

[1] Michael Josselyn, The Ecology of San Francisco Bay Tidal Marshes: A Commnity Profile, 1983, p.1.
[2] Frederic Nichols, et. al. "The Modification of an Estuary," Science, Volume 231:7, February 1986.

The value of this resource was acknowledged in 1972, when the San Francisco Bay National Wildlife Refuge was established. The Refuge includes more than 18,000 acres of South Bay wetlands in Alameda, Santa Clara and San Mateo Counties. Additional acreage in Sonoma and Solano Counties is included in the San Pablo Bay National Wildlife Refuge. Public access is limited to about 2 percent of the Refuge to minimize disturbance to the estuarine life, the resident harbor seals, and the multitude of waterfowl and shorebirds that rest and feed there, especially during the winter.

In addition to Refuge trails, public access trails and observation platforms for viewing wildlife are scattered throughout the Bay Area. Figure II-1 highlights locations of existing public access near wetlands. Due to the sensitive nature of this resource, access in wetlands is generally limited to hiking only. Frequently, access is restricted or eliminated during nesting season. Other regulations, particularly restrictions on domestic pets, reflect the concern that trail users respect wildlife's need for a secure environment in which to feed, nest and rest. Trails in these locations are generally unpaved; instead of asphalt surfacing, they may be left as natural-surface trails, improved with a compacted gravel or crushed rock surface, or developed as boardwalks.

The Bay's Built Environments

Land uses along the San Francisco Bay shoreline represent a microcosm of land uses throughout the region. Residential development along the proposed trail route ranges from very low-intensity rural residential to multifamily development in urban settings. Some newer communities have trails integrated into their site design, creating a direct link to the Bay.

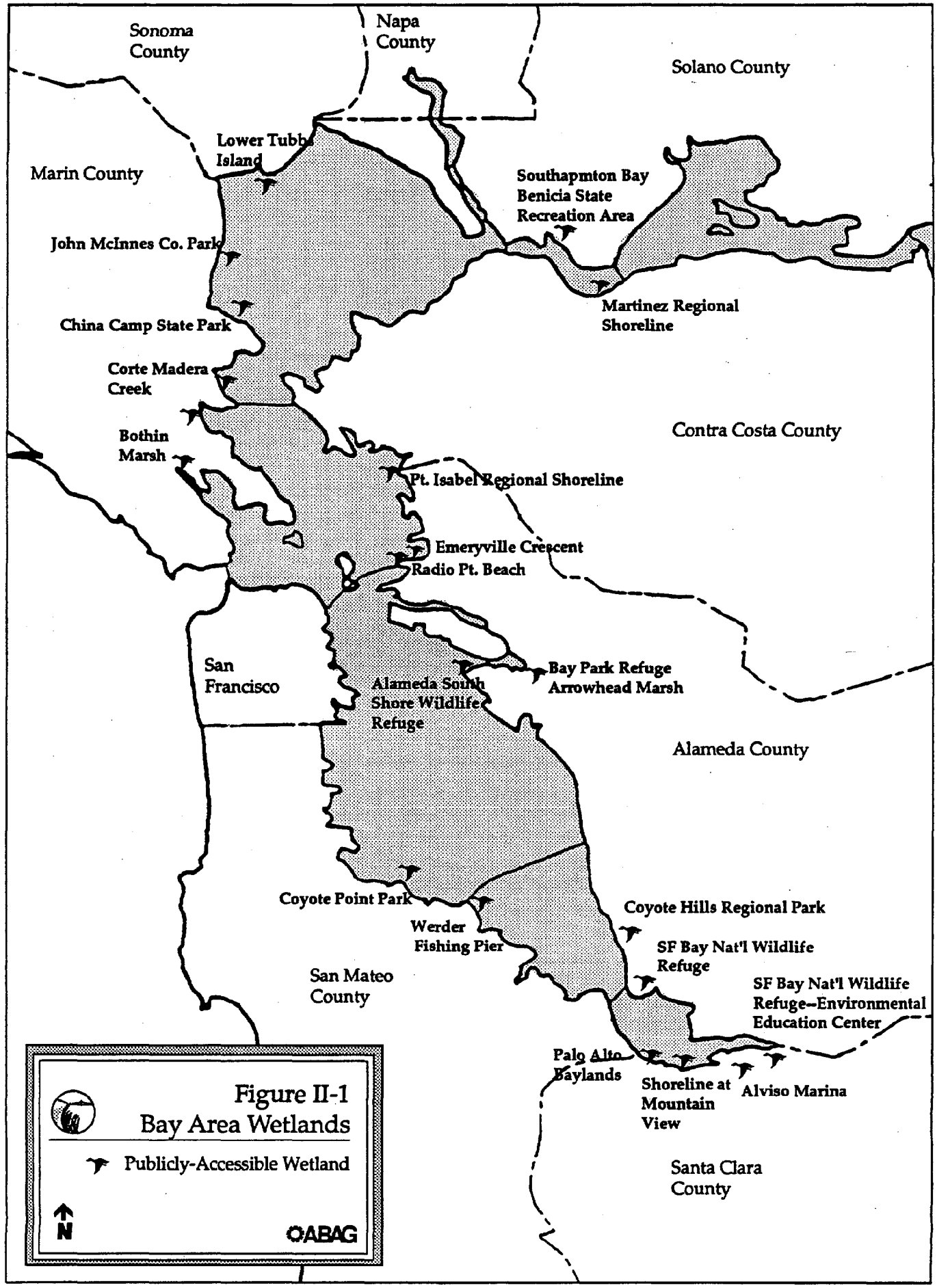
Commercial land uses will be among the most common activities near the trail, due in large measure to the proliferation of office and light industrial parks along the bayfront. Commercial waterfronts and retail commercial activities are also common along the route; examples of these are Ghirardelli Square and Fisherman's Wharf in San Francisco, Jack London Square in Oakland, and the active commercial waterfronts of Emeryville, Benicia, Tiburon and Sausalito.

Mining, in the form of salt production, occurs on 22,000 acres of diked wetlands in the southern part of the Bay, making this activity by far the largest user of bayfront land. More than 15,000 acres of the salt evaporation ponds are within the San Francisco Bay National Wildlife Refuge.

Industrial land uses represent less than five percent of total bayfront land use. Two major ports—the Port of Oakland and the Port of San Francisco—occupy strategic locations along the shoreline. Other traditional heavy industries are concentrated in Contra Costa County, where eleven companies operate refineries, tank farms and storage and blending facilities between Richmond and Martinez. Hazards associated with heavy truck traffic and the criss-crossing of the industrial zones by railroad tracks present special challenges to trail development in these areas. Military facilities located along the shoreline, particularly Moffett Field Naval Air Station near Mountain View, Point Molate Naval Fuel Depot in Richmond and the U.S. Naval Air Station in Alameda, pose other challenges, due to their special security requirements.

Overall, industrial land uses in the Bay Area have been decreasing relative to commercial and residential uses. One indication that this trend is continuing is the number of ongoing development projects involving the conversion of industrial areas into mixed commercial and housing developments, a trend which is especially apparent in the East Bay.

The shoreline is also a focus for considerable recreation-oriented development, including marinas, boat launches, fishing piers, beaches, and shoreline parks. Many newer parks, such as Shoreline at Mountain View, and proposed parks in San Mateo and Sunnyvale, disguise former sanitary landfills. The extent of recreational opportunities along the trail will be explored more fully in Section III.


Sonoma County
Napa County
Solano County
Marin County
Lower Tubbs Island
Southapmton Bay Benicia State Recreation Area
John McInnes Co. Park
Martinez Regional Shoreline
China Camp State Park
Corte Madera Creek
Contra Costa County
Bothin Marsh
Pt. Isabel Regional Shoreline
Emeryville Crescent
Radio Pt. Beach
San Francisco
Bay Park Refuge
Arrowhead Marsh
Alameda South Shore Wildlife Refuge
Alameda County
Coyote Point Park
Coyote Hills Regional Park
Werder Fishing Pier
SF Bay Nat'l Wildlife Refuge
San Mateo County
SF Bay Nat'l Wildlife Refuge--Environmental Education Center
Palo Alto Baylands
Shoreline at Mountain View
Alviso Marina
Santa Clara County
Figure II-1
Bay Area Wetlands
Publicly-Accessible Wetland
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Institutional Setting for Bay Trail Planning

San Francisco Bay is the center of a complex web of regulation and land use control. Jurisdiction over use of the San Francisco Bay shoreline is shared by numerous federal, state, regional and local agencies. Cooperative, coordinated efforts by them all will be necessary to ensure that the Bay Trail is successfully implemented. The list which follows is not exhaustive; it does, however, illustrate the range of agencies on which successful implementation of the Bay Trail will depend.

Cities and Counties around the Bay are the principal land use regulatory authorities. Each agency exercises direct permit control over land use within its jurisdiction. Through General Plans, zoning ordinances, subdivision controls, and plans and budgeting priorities for park and recreation projects, these agencies will provide the most direct and visible framework for establishing the Bay Trail.

A variety of *special districts* have regulatory authority on shoreline land which they own or manage. Notable examples are agencies with flood control powers (e.g., Alameda County Flood Control District, Santa Clara Valley Water District) and park and open space districts (e.g., East Bay Regional Park District , Midpeninsula Regional Open Space District).

The *San Francisco Bay Conservation and Development Commission* (BCDC) is one of the primary permitting agencies for bayshore land uses activities, exercising authority over a 100-foot wide strip of land around the Bay's margin. One of the policies most relevant to the Bay Trail is BCDC's charge, in issuing permits for shoreline development, to require "maximum feasible public access" to the shoreline. The Commission is also required to provide for water-oriented land use on the shore. These principles are enunciated in the Bay Plan, which identifies general locations and standards for creating public access and recreational facilities along San Francisco Bay.

The *California State Coastal Conservancy* implements a program of agricultural protection, wetlands and facilities restoration and resource enhancement in the coastal zone. Conservancy grants to local agencies for public access and resource enhancement projects have contributed to many existing segments of the Bay Trail.

The *California Department of Transportation* (CalTrans) is the State agency authorized to construct and maintain state and federal highways and bridges. CalTrans operates six of the Bay Area's seven major toll bridges, and will play a significant role in determining how the Bay Trail should interface with these facilities, as well as with the Bay Area's highway network.

The *U.S. Army Corps of Engineers* has jurisdiction over all bayshore areas at elevations lower than mean high tide; this includes all historic wetland areas below mean high tide, even if they are now dry. A Corps permit is required prior to the construction of any structures (except for transportation structures) in or across navigable waters.

The *Environmental Protection Agency* (EPA) develops the environmental guidelines which are followed by the Corps of Engineers in evaluating permit proposals under Corps jurisdiction.

Although it is a non-regulatory agency, the *U.S. Fish and Wildlife Service* must be consulted on any federal project that involves the modification of any body of water. It advocates the preservation and restoration of wetlands.

As the state custodian of fish and wildlife resources, the *California Department of Fish Game* provides comments and advice to land use permitting agencies. Fish and Game has limited direct permit authority when a proposed project would alter any streambed.

The *California State Lands Commission* has authority over all tidal and submerged lands and the beds of navigable waters owned by the State. It also retains a "public trust" in those lands which have historically been subject to tidal influence, but which, due to dikes or fill, are now dry. In some instances, it can require a trail easement across these lands to fulfill the public trust interest, as part of negotiating a boundary line agreement (a legal document, drafted to settle the State's interest) with the property owner.

Framework for Developing the Bay Trail Plan

Senate Bill 100 directed ABAG to establish a policy committee to oversee development and implementation of the trail as well as an advisory committee, representing environmental and recreation interests, to assist in preparation of the plan. All meetings of the Bay Trail Policy Committee, Advisory Committee and their subcommittees were open to the public. Committee rosters appear in Appendix B.

Bay Trail Policy Committee

ABAG's Regional Planning Committee (RPC) was designated the Policy Committee for the Bay Trail program. The RPC is a standing committee of ABAG, comprised of 34 local elected officials and representatives of business, labor, community organizations, and other regional agencies. In its capacity as the Bay Trail Policy Committee, RPC membership was expanded to include representatives of two additional environmental organizations—Save San Francisco Bay Association and the Santa Clara Valley Chapter of the National Audubon Society. The RPC and its Environmental Management and Open Space Subcommittee oversee progress of Bay Trail planning, review Advisory Committee recommendations, will hold public hearings on the Bay Trail Draft Plan and Environment Impact Report, and will forward recommendations to the ABAG Executive Board for action on the final Bay Trail Plan.

The Executive Board directs ABAG's operations. A body of 38 elected officials from member cities and counties, the Executive Board, after considering recommendations from the Advisory Committee and Regional Planning Committee, will review and adopt a final Bay Trail Plan for submittal to the State Legislature by July 1, 1989.

Bay Trail Advisory Committee

Bay Trail Advisory Committee was formed in December, 1987, to advise project staff and the Bay Trail Policy Committee during preparation of the Bay Trail Plan. Thirty-seven delegates and twenty alternates, representing thirty-one local, regional, state and federal organizations and agencies serve on the Advisory Committee.

To facilitate the Advisory Committee's work, five subcommittees were formed: Transportation, Trail Design, Financing, Environmental Issues subcommittees developed policy recommendations. Three geographic area subcommittees were formed to review possible trail alignments in the North Bay (Marin, Sonoma, Napa and Solano Counties), East Bay (Alameda and Contra Costa Counties) and Peninsula and South Bay (San Francisco, San Mateo and Santa Clara Counties). Subcommittee meetings were conducted very informally, to allow all those interested in Bay Trail planning an opportunity to participate fully in the work of the Committee. In all, 8 Advisory Committee meetings and 23 subcommittee meetings were held in developing the draft Bay Trail Plan.

Bay Trail Technical Committee

A Bay Trail Technical Committee was also formed, to provide an opportunity for all interested public agencies to participate directly in the Bay Trail planning process. Some agencies were represented both on the Technical and Advisory Committees. More than 110 agency representatives, representing 69 local, regional, state and federal agencies participated in the work of the Technical Committee.

Section III
Bay Trail Plan Recommendations

- **Bay Trail Alignment**
- **Bay Trail Policies**
- **Meeting the Mandate of SB 100**

The Bay Trail Plan consists of two components: a proposed alignment for the Bay Trail and policies to guide the selection of a trail route and implementation of the trail system.

Bay Trail Alignment

This plan proposes an alignment for what will become a roughly 400-mile recreational "ring around the Bay."[1] As Figure III-1 indicates, once completed, the Bay Trail will represent a trail *system* comprised of three components: spine trails, spur trails, and connector trails.[2] The spine and spur trails create the framework of the Bay Trail system. The spine trail encircles the Bay, providing a continuous recreational corridor which links all nine Bay Area counties. Depending on the location, spine trails may be multiple use trails (hiking and bicycling) or may be restricted to hiking or bicycling only. In some areas, site constraints force the spine trail inland.

Where the spine trail does not follow the shoreline, spur trails provide access from the spine trail to points of interest along the Bay. Existing spur trails are predominantly hiking-only trails, which permit restricted access in environmentally-sensitive areas along the shore.

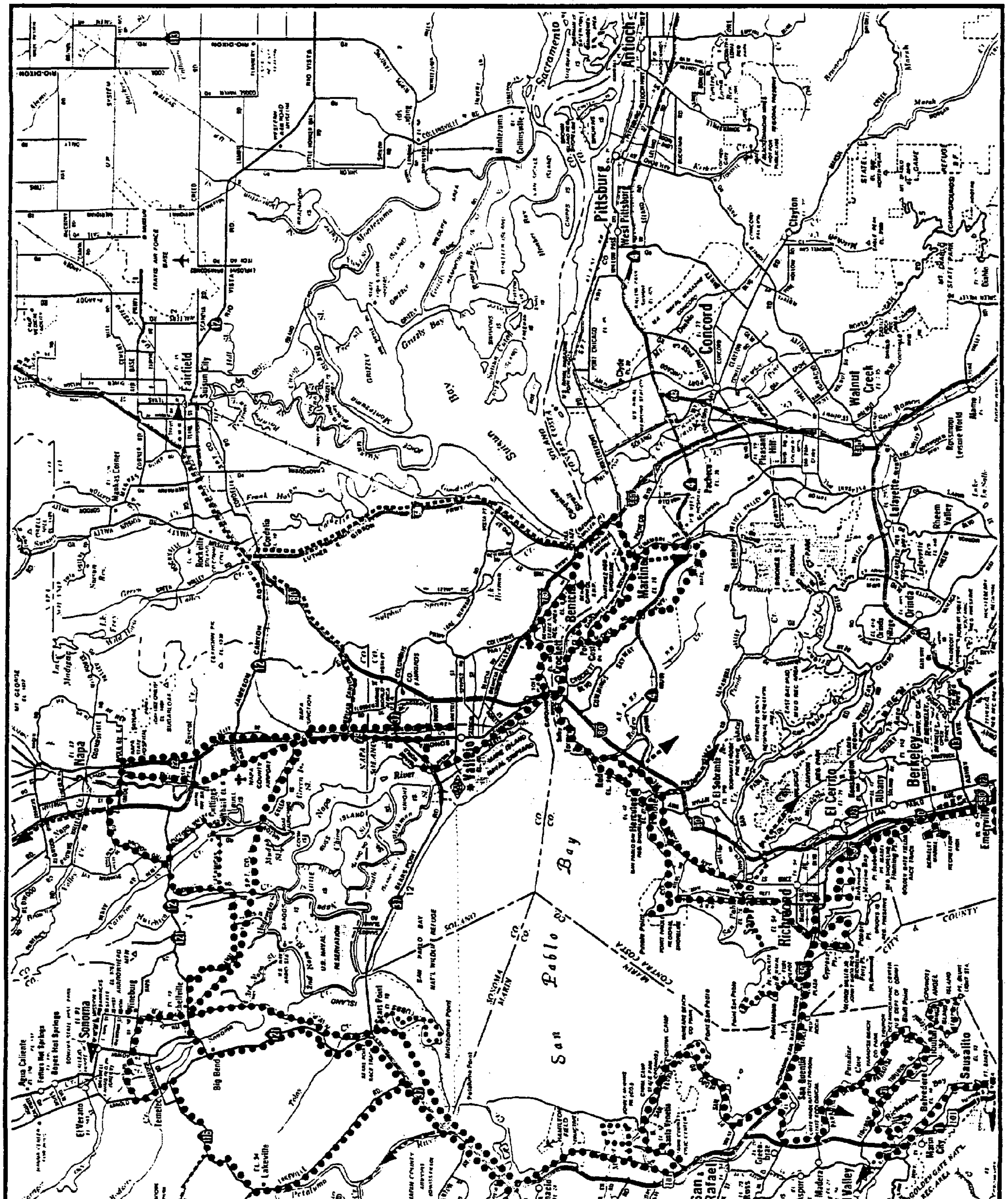
In addition to the spine and spur trails, Figure III-1 shows a series of connector trails. Connector trails fall into two categories: existing shoreline trails which connect to the Bay Trail but which have not been incorporated as part of the Bay Trail alignment, and trails which provide connections to urban centers located inland from the Bay. Trails falling into the first category are primarily those within the San Francisco Bay National Wildlife Refuge. Wildlife Refuge trails are generally passive, interpretive trails, rather than active, recreational facilities. Their use is restricted to pedestrians only and the trails may be subject to closing during certain times of the year in order to protect nesting wildlife.

Trail connections to inland urban centers principally rely on rivers or creeks to provide connections to the Bay. These trail connections are important because they tie residential and job centers into the Bay Trail system. They also create an alternative means of trail access for users who prefer not to rely solely on automobile transportation to reach staging areas along the shoreline. Some of these connector trails will ultimately serve as links between the Bay Trail and the proposed Ridge Trail, eventually forming a comprehensive regional trail network.

In one location (Robert's Landing in San Leandro), an observation platform is proposed in lieu of a trail connection along the shoreline. This will allow trail users to view, but not disturb, the fragile dune environment which exists there.

[1]The routes shown on the following alignment maps actually represent approximately 550 miles of trails, even though the Bay Trail is described as a 400-mile trail. This discrepancy is due to the fact that alternative routes have been suggested for some segments of the alignment where only one route will ultimately be shown in the final plan.

[2]In addition to the following figures, detailed maps showing county-long segments of the trail are available separately. Please see the last page of this report for information about obtaining County reach maps.



Spine Trail ●●●●●

Spur Trail ●●●●●

Connector Trail ▬▬▬►

Proposed Bay Trail

Figure III-1
Plate 1

Approx. Scale 2 0 2 4 miles ← N

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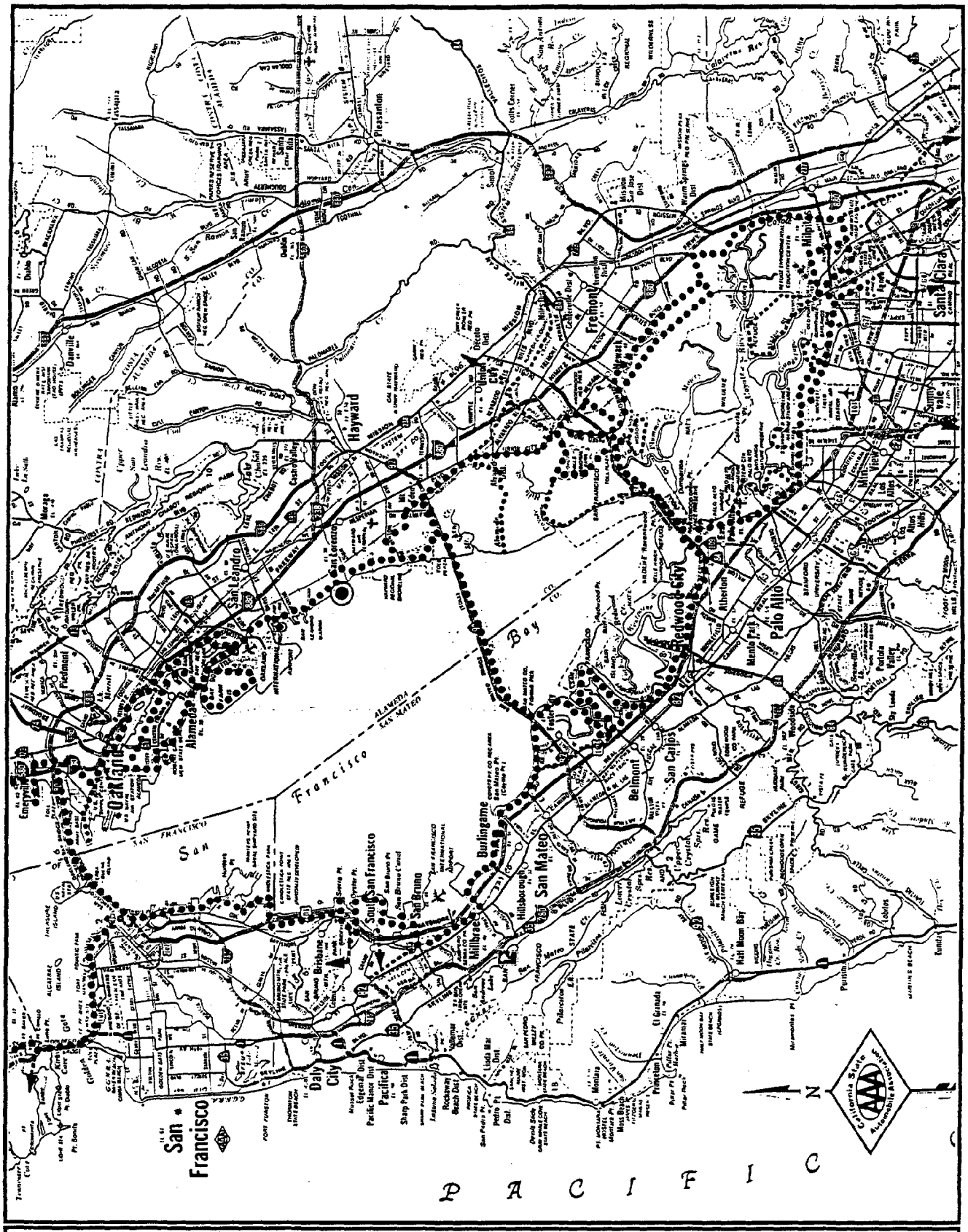

The Bay Trail

Spine Trail

Spur Trail

Connector Trail

Observation Platform

Proposed Bay Trail

Figure III-1
Plate 2

Approx. Scale 2 0 2 4 miles

N

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Table III-1 provides a breakdown of Bay Trail mileage. It indicates that approximately one-third of the trail already exists, either as hiking-only paths, hiking and bicycling paths (Class I bikeways) or as on-street bicycle lanes (Class II bikeways). Figure III-2 illustrates the different types of bikeways which are likely to be incorporated into the Bay Trail.

Figure III-3 shows the proposed Bay Trail alignment in more detail. These maps illustrate some of the many opportunities and challenges facing the Bay Trail Advisory Comittee as it sought to locate a continuous trail around the Bay.

Table III-1

Bay Trail System Length
Length of Spine and Spur Trails by County

County	Trail Segment Length (in miles)				
	Spine Trails		Spur Trails		Total
	Existing	Proposed	Existing	Proposed	
Alameda	41 [1]	70	4	24	139
Contra Costa	4	56	1	7	68
Marin	19 [2]	29	9	4	61
Napa	3 [3]	38	0	4	45
San Francisco	6	8	0	1	15
San Mateo	27 [4]	24	3	4	58
Santa Clara	5	25	7	1	38
Solano	56	15	0	0	71
Sonoma	0	53	3	3	59
Total	161	318	27	48	554
	479		75		

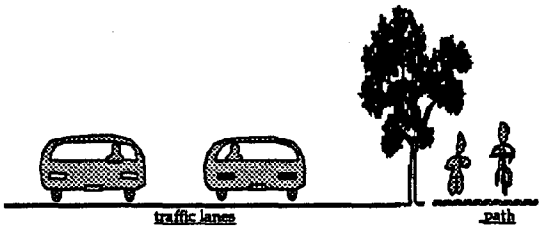
notes:
Trail lengths are generalized and are provided for comparative purposes only, due to the margin of error and the varying scales of resources used to calculate trail mileage.
[1] includes 9 miles class II bicycle lanes
[2] includes 3 miles class II bicycle lanes
[3] includes 3 miles class II bicycle lanes
[4] includes 2 miles class II bicycle lanes

Figure III-2

Bikeway Classifications

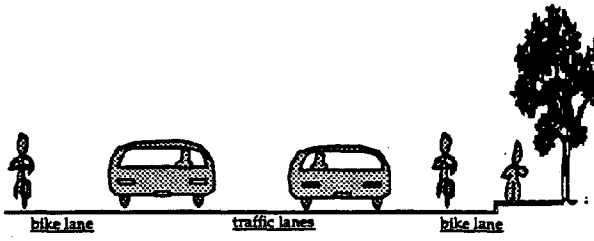
Class I
Bicycle/Pedestrian Path

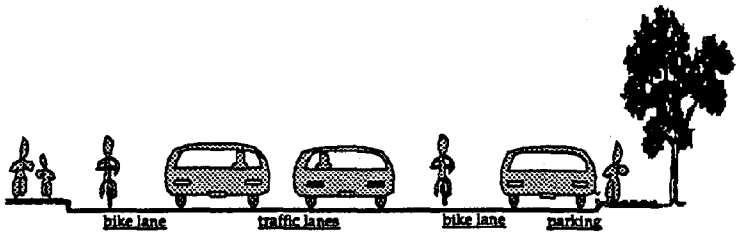
- exclusive right-of-way for bicyclists and pedestrians
- pathway completely separated from motor vehicles by space or physical barrier
- minimal cross-flow by motor vehicles (e.g., at intersections)



Class II
Bicycle Lane

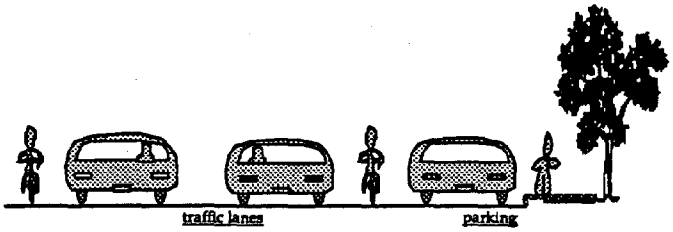
- restricted right-of-way designated for the exclusive flow of bicycles
- travel by motor vehicles or pedestrians prohibited, but vehicle cross-flow allowed for parking and turning
- signed as a bike lane
- lane designated by solid white striping (dashed striping at intersection approaches, where vehicles may cross to make turns)

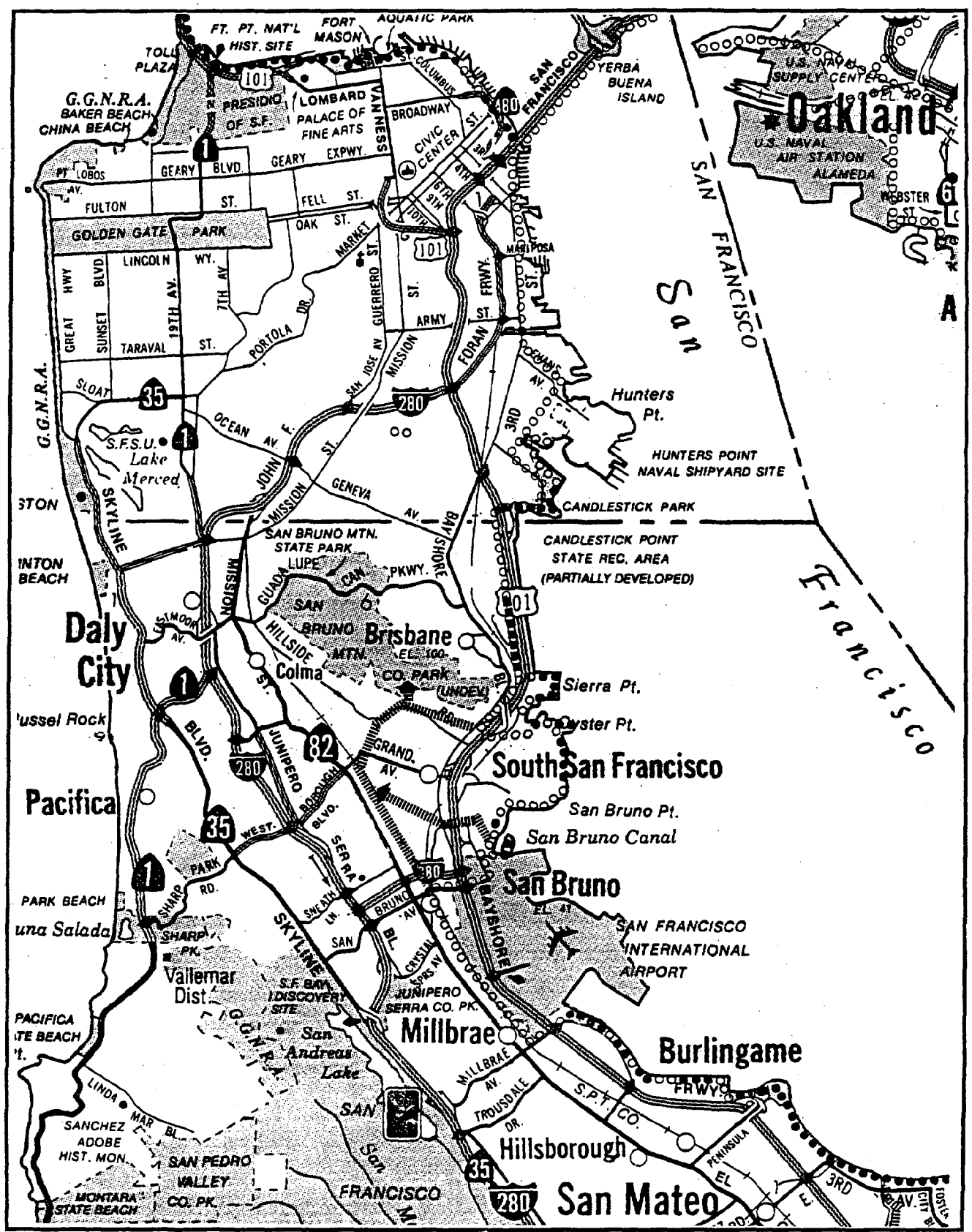




Class III
Bicycle Route

- shared right-of-way for motor vehicles and bicycles
- signed as a bike route





	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◐◐◐◐◐
Connector Trail	▮▮▮▮▮▶	(same)

Bay Trail Alignment

Figure III-3
Plate 1

Approx. Scale ▬▬▬ miles
0.5 0 1

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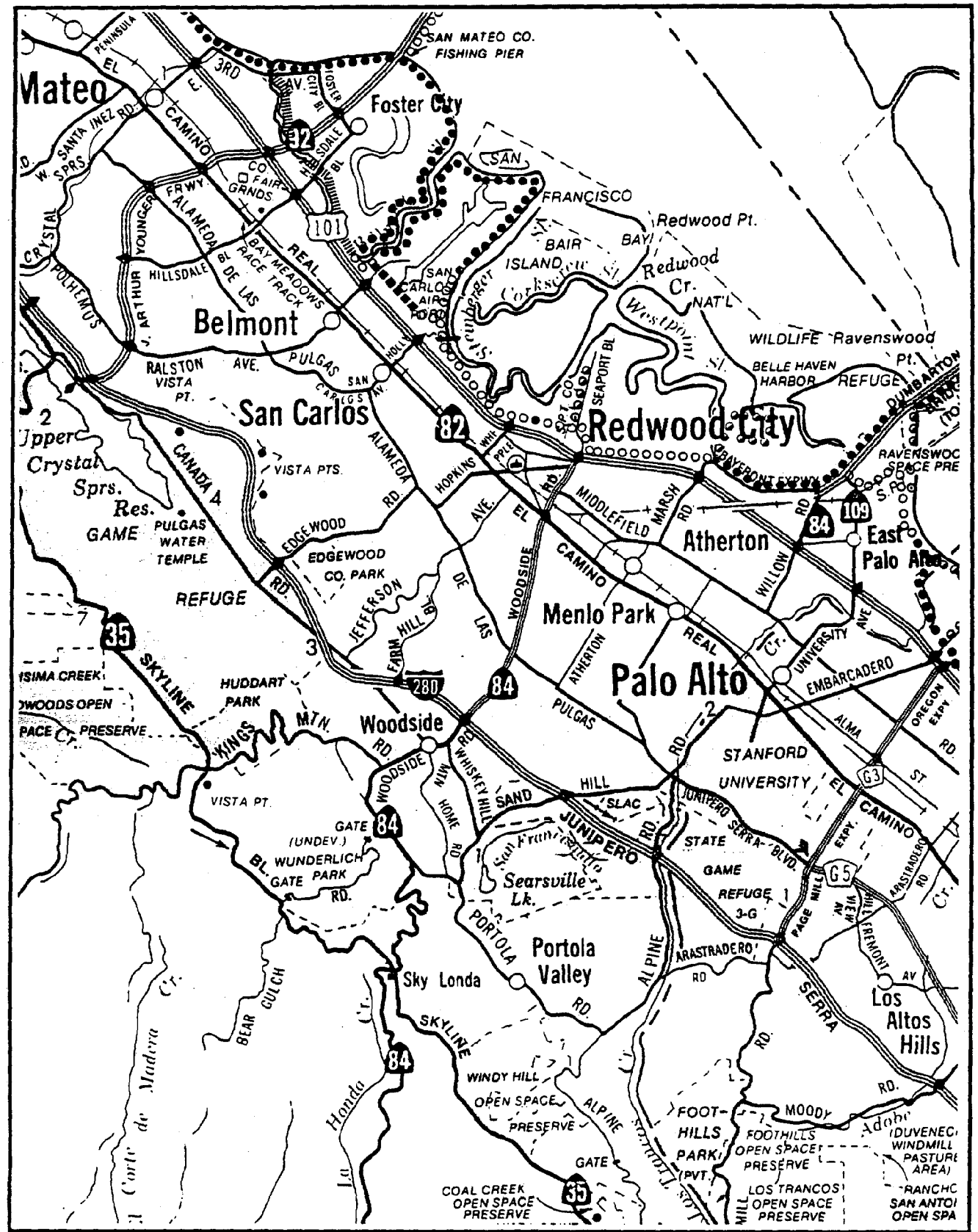

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◐◐◐◐◐
Connector Trail	▮▮▮▮▮▶	(same)

Bay Trail Alignment

Figure III-3
Plate 2

Approx. Scale — 0.5 0 1 miles

N

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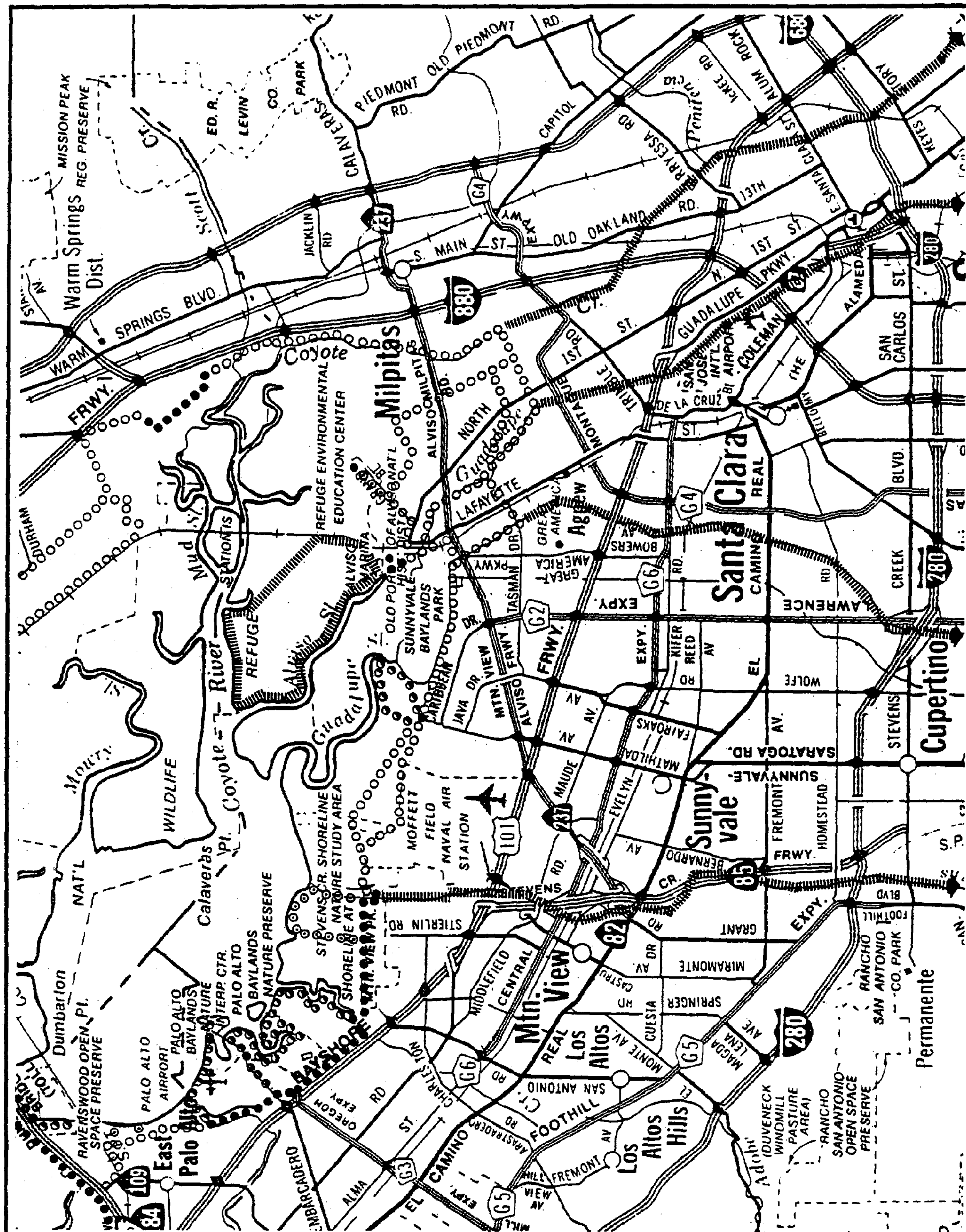

Bay Trail Alignment

Figure III-3
Plate 3

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◕◕◕◕◕
Connector Trail	IIIIIIIIII▶	(same)

Approx. Scale 0.5 0 1 miles

← N

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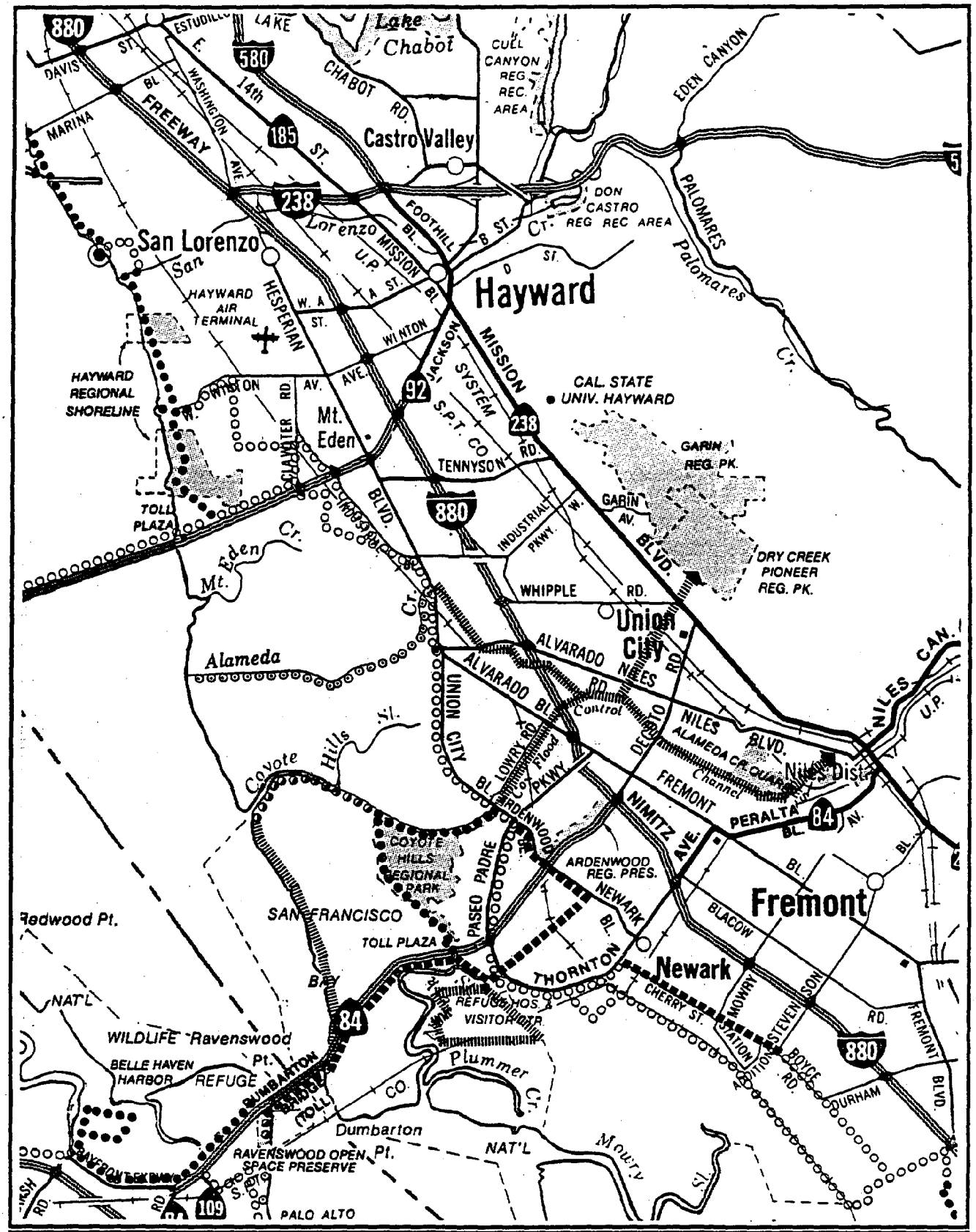

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◐◐◐◐◐
Connector Trail	▮▮▮▮▮▶	(same)

Bay Trail Alignment

Figure III-3
Plate 4

Approx. Scale 0.5 0 1 miles

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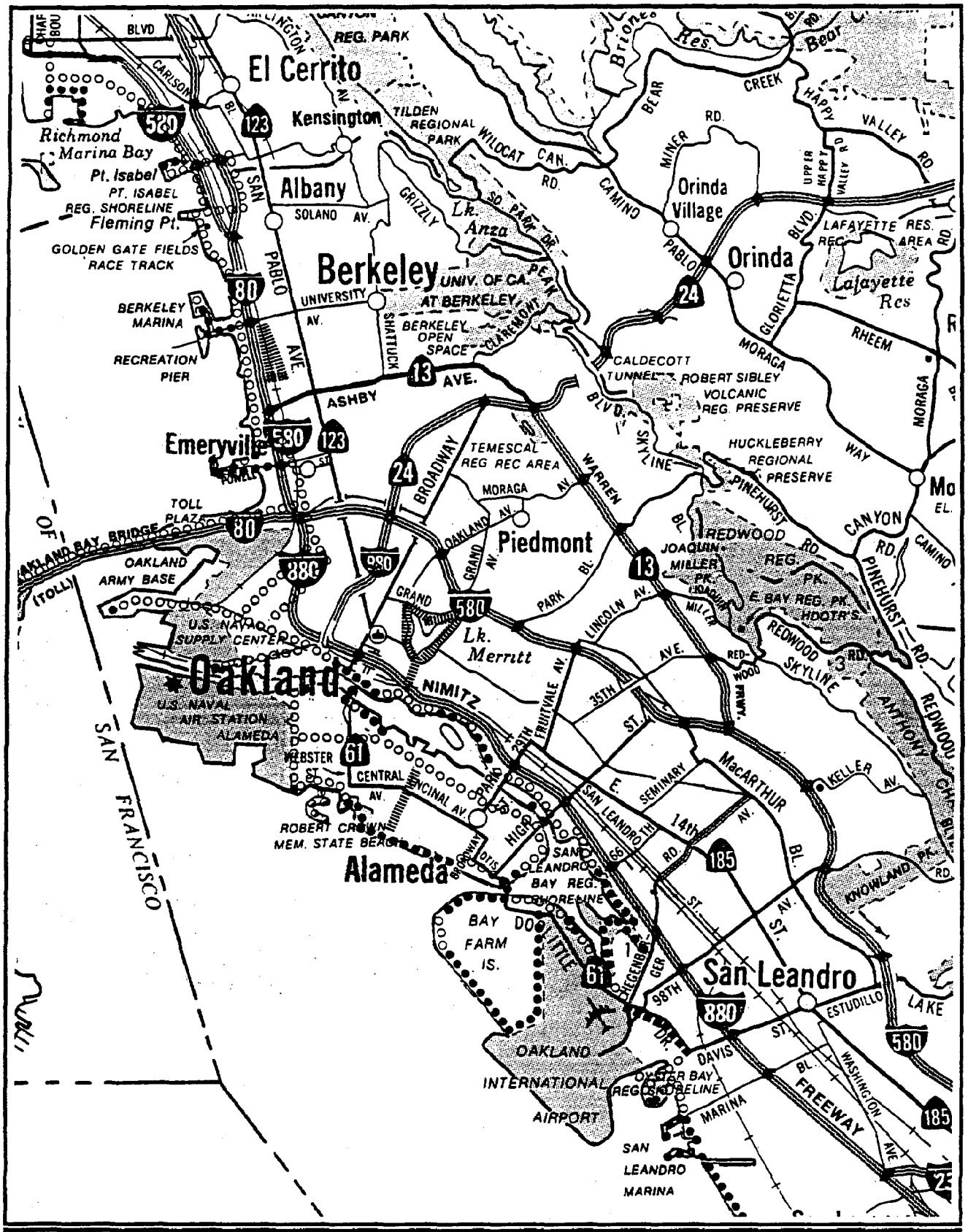

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◐◐◐◐◐
Connector Trail	▮▮▮▮▮▶	(same)

Bay Trail Alignment

Figure III-3
Plate 5

Approx. Scale 0.5 0 1 miles

N

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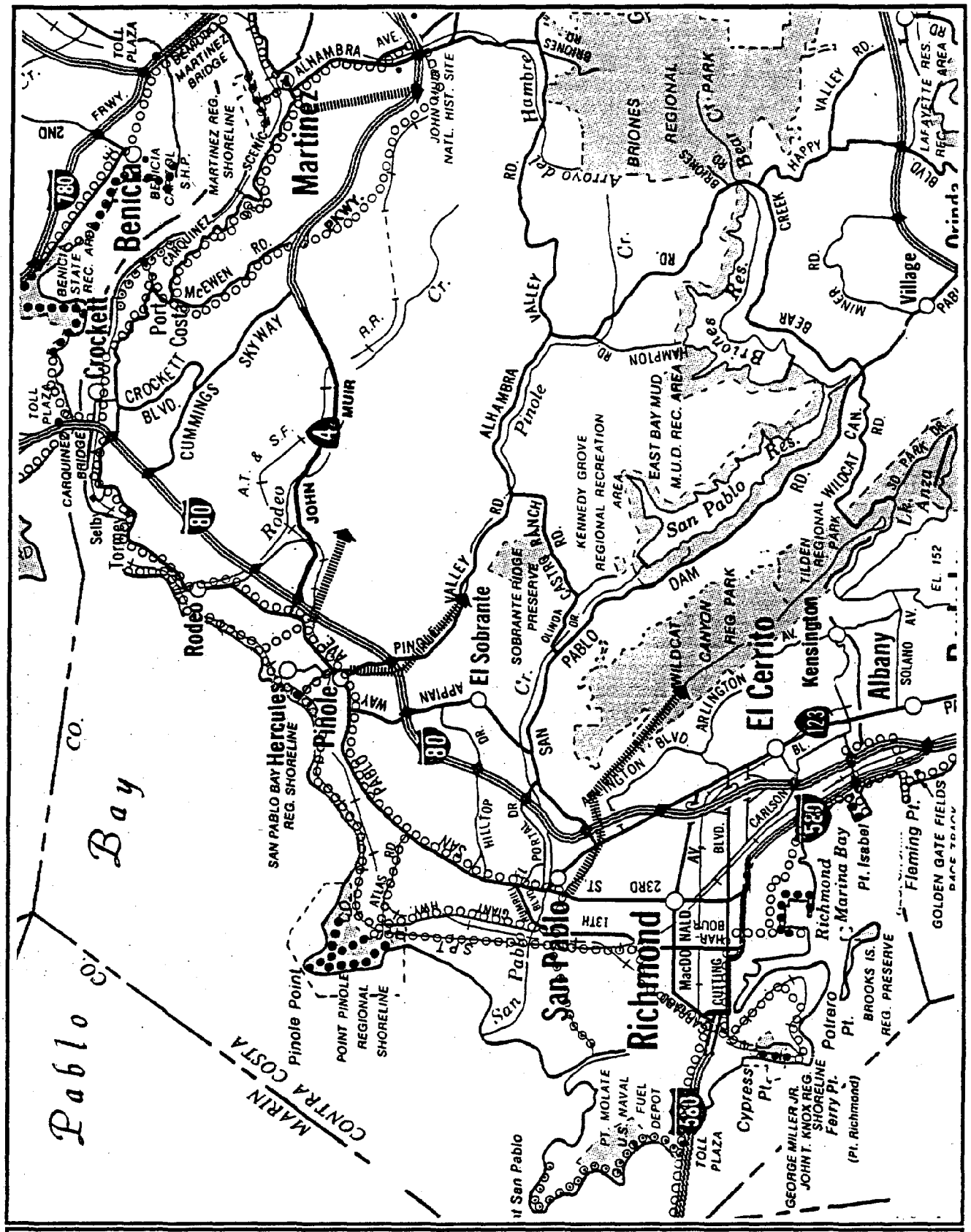

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◐◐◐◐◐
Connector Trail	▮▮▮▮▮▮▶	(same)

Bay Trail Alignment

Figure III-3
Plate 6

Approx. Scale 0.5 0 1 miles

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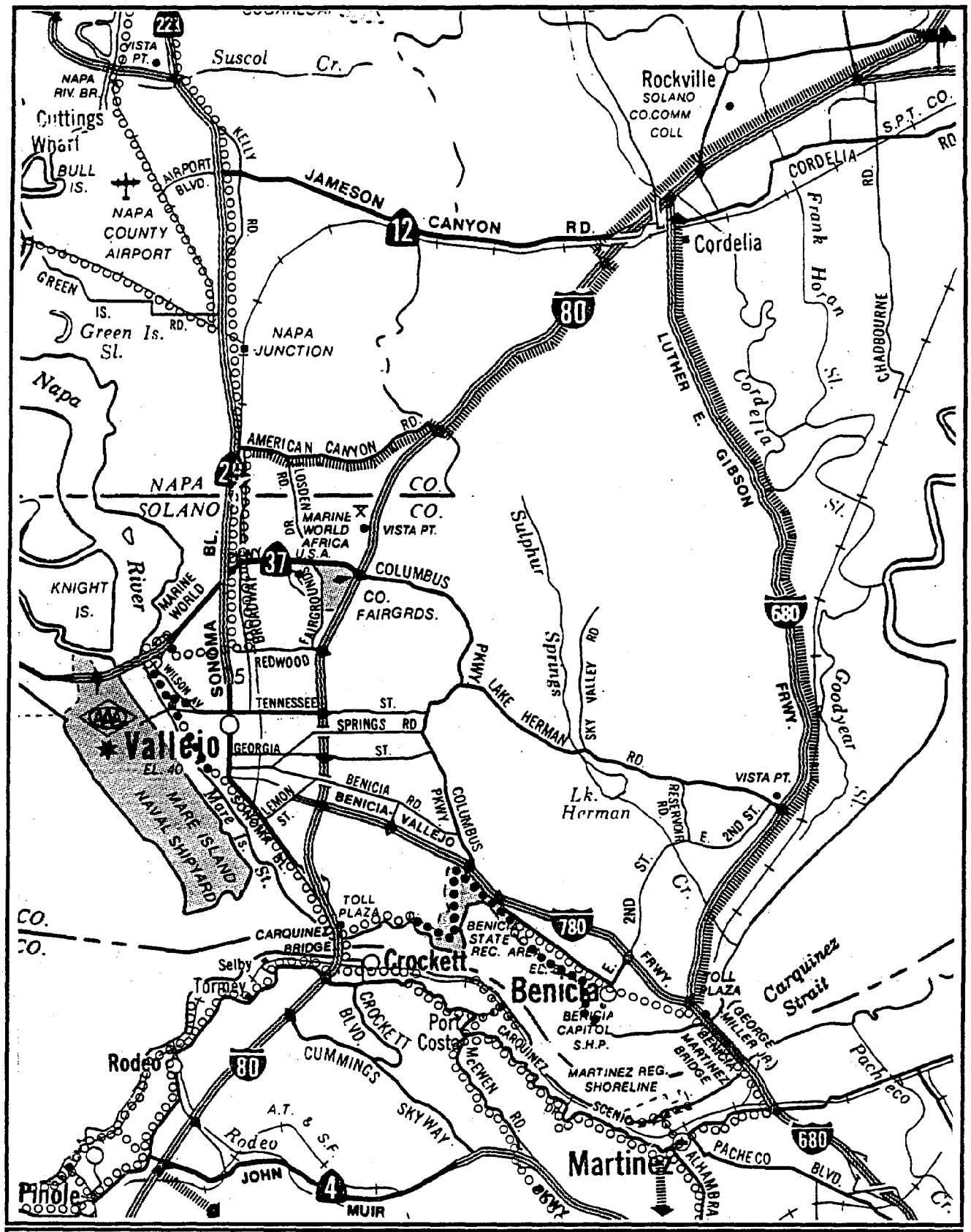

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◕◕◕◕◕
Connector Trail	▮▮▮▮▮▮▶	(same)

The Bay Trail

Bay Trail Alignment

Figure III-3
Plate 7

Approx. Scale 0.5 0 1 miles

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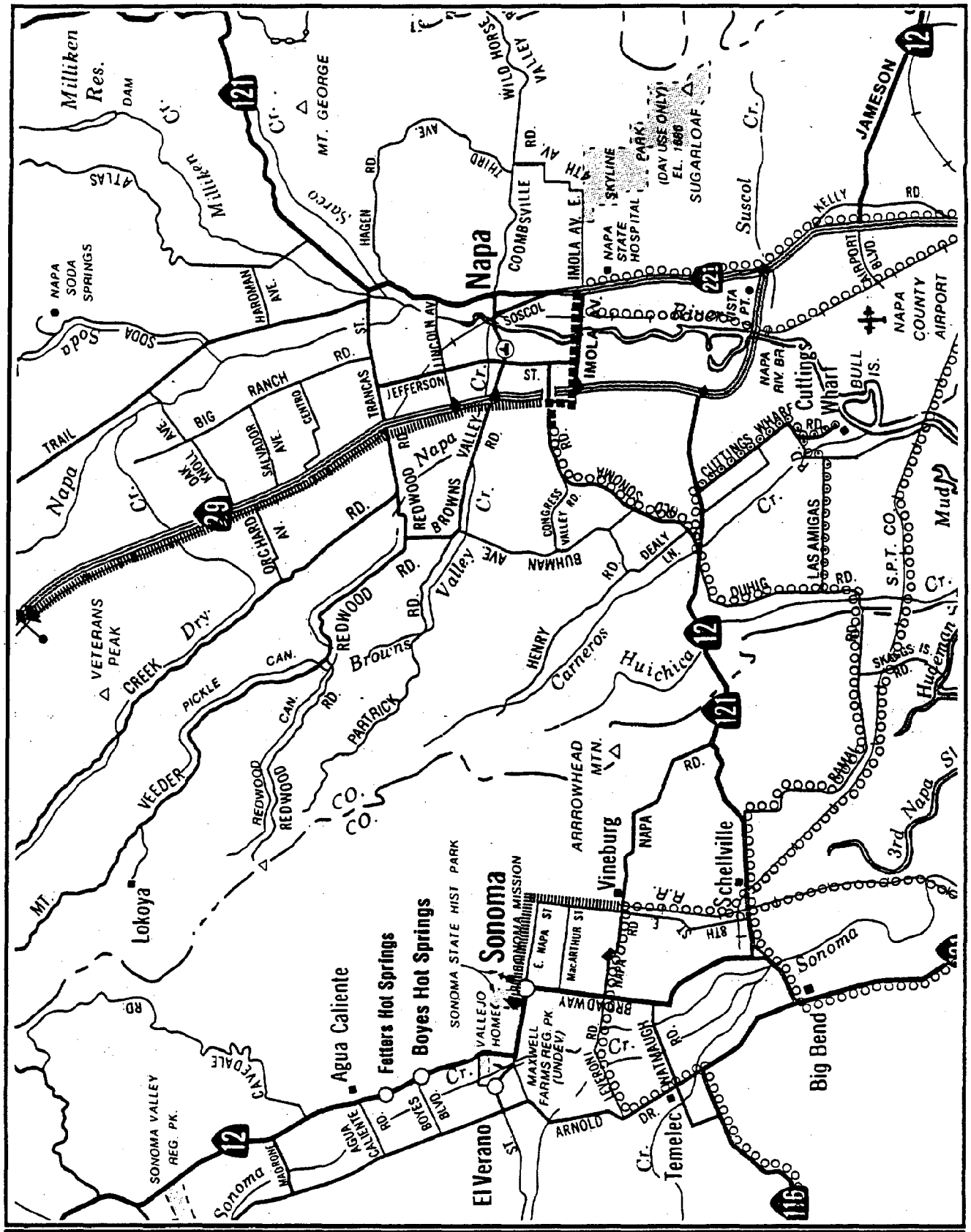

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◐◐◐◐◐
Connector Trail	▥▥▥▶	(same)

Bay Trail Alignment

Figure III-3
Plate 8

Approx. Scale — 0.5 0 1 miles

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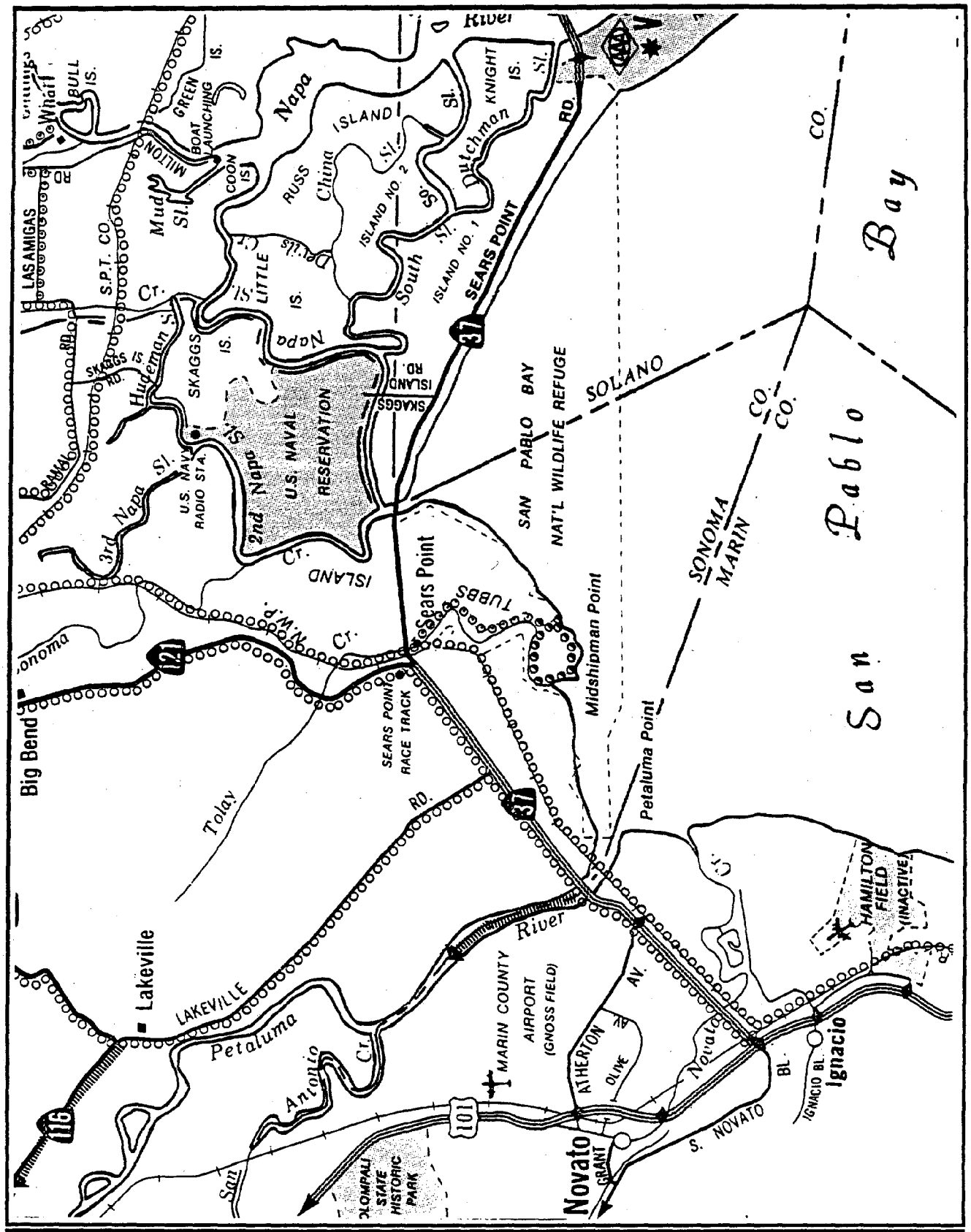

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◐◐◐◐◐
Connector Trail	▮▮▮▮▮▶	(same)

The Bay Trail

Bay Trail Alignment

Figure III-3
Plate 9

Approx. Scale 0.5 0 1 miles

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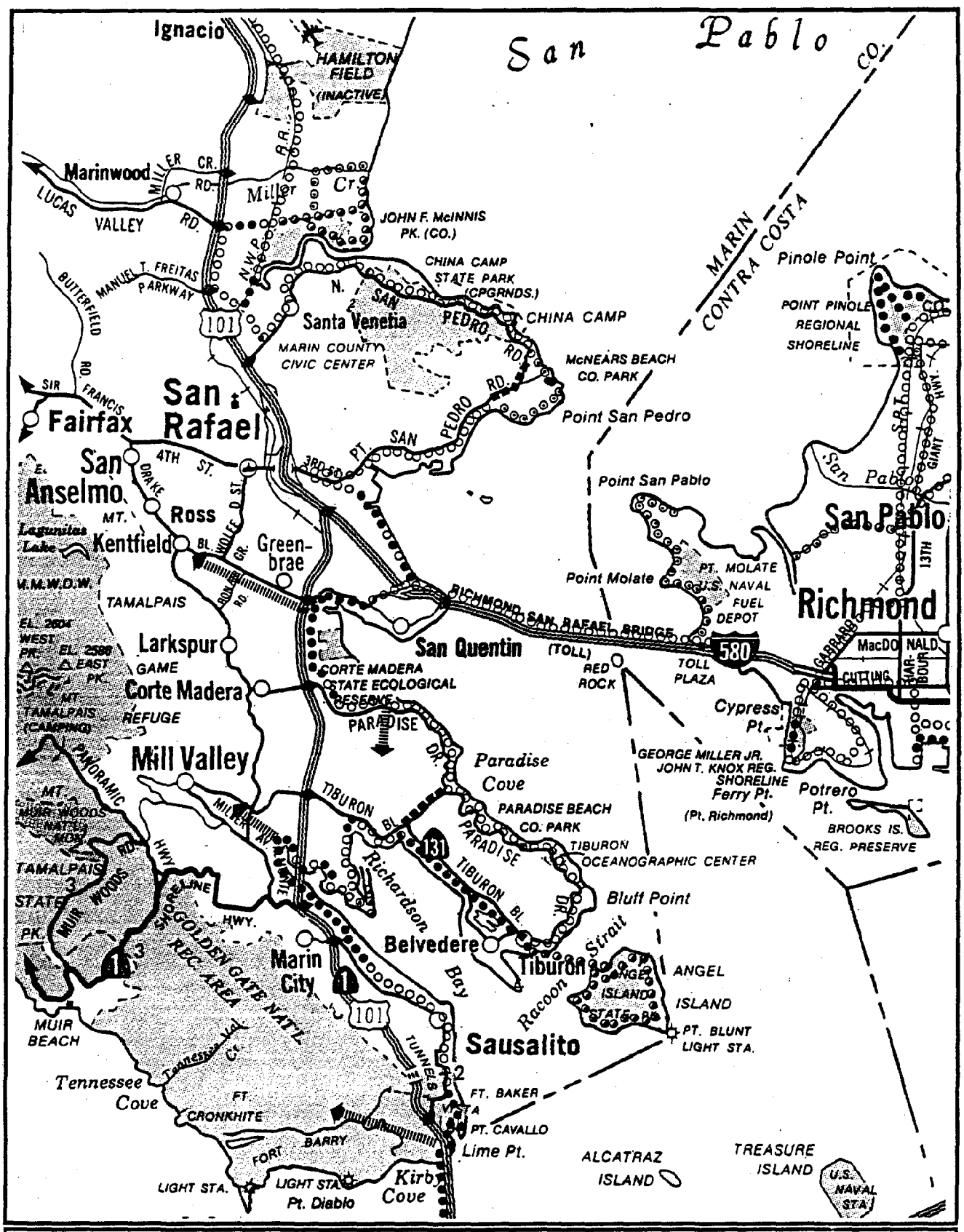

	Proposed	Existing
Spine Trail	○○○○○	●●●●● (path)
		■■■■■ (bike lane)
Spur Trail	⊙⊙⊙⊙⊙	◐◐◐◐◐
Connector Trail	▥▥▥▶	(same)

The Bay Trail

Bay Trail Alignment

Figure III-3
Plate 10

Approx. Scale 0.5 0 1 miles

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Bay Trail Policies

The Bay Trail policies are described in detail in Table III-2. The policies are grouped into five categories:

1) *Trail alignment policies* reflect the goals of the Bay Trail program—to develop a continuous trail which highlights the wide variety of recreational and interpretive experiences offered by the diverse bay environment and is situated as close as feasible to the shoreline, within the constraints defined by other policies of the plan.

2) *Trail design policies* underscore the importance of creating a trail which is accessible to the widest possible range of trail users and which is designed to respect the natural or built environments through which it passes. Minimum design guidelines for trail development are recommended for application by implementing agencies.

3) *Environmental protection policies* underscore the importance of the San Francisco Bay's natural environment and define the relationship of the proposed trail to sensitive natural environments such as wetlands.

4) *Transportation access policies* reflect the need for bicycle and pedestrian access on Bay Area toll bridges, in order to create a continuous trail and to permit cross-bay connections as alternative trail routes.

5) *Implementation policies* state that successful implementation of the Bay Trail Plan will require continuing trail advocacy, oversight, and a structure for trail management. The preliminary recommendations presented in the draft Plan will be the subject of continued study by the Bay Trail Advisory Committee in the spring of 1989. Refined policies will be included in the final plan.

Table III-2

Bay Trail Policies

Trail Alignment Policies	Discussion
1. Ensure a feasible, continuous trail around the Bay.	*In developing the trail alignment, attention was focused on providing a realistic route for trail development, consistent with the need to balance the constraints posed by the different natural and built environments around the Bay. Use of the spine and spur trail system provides the means to accomplish this goal.*
2. Minimize impacts on and conflicts with sensitive environments.	*Natural areas are not the only sensitive environments around the Bay. Military facilities, sewage treatment facilities, landfills, and areas of heavy industry each have special requirements and constraints for locating public use. Security and safety are two considerations which play prominent roles in selecting trail alignments and in determining whether a separate trail facility (e.g., bike path, hiking trail) will be required.*
3. Locate trail, where feasible, close to the shoreline.	*A range of constraints—physical, environmental, and safety-related—will prevent the trail from being located entirely along the Bay shoreline. Where a shoreline alignment is feasible, it is the preferred Bay Trail route.*

Bay Trail Policies

Table III-2, continued

Trail Alignment Policies, continued	Discussion
4. Provide a wide variety of views along the Bay and recognize exceptional landscapes.	*The richness of the Bay is reflected in the widely divergent views from its shoreline--vast expanses of marshland, open expanses of water, the lights of an urban panorama, the bustle of a working waterfront. Each of these scenes represents a valued facet of the San Francisco Bay experience.*
5. Investigate water trails as an enhancement to the trail system where necessary or appropriate.	*The use of ferries and other forms of water transportation may be a feasible means of providing connections between shoreline areas. For example, the Bay Trail alignment shows ferry service to Angel Island trails. Additional ferry service may eventually be possible in the East Bay and across the Carquinez Strait.*
6. In selecting a route for the trail, incorporate local agency alignments where shoreline trail routes have been approved. Incorporate San Francisco Bay Conservation and Development Commission public access trails where they have been required.	*Many agencies and jurisdictions are preparing plans for trails and other forms of public access to the shoreline. Where these plans have been adopted, the trail routes have been incorporated into the Bay Trail. In other cases, local planning is still ongoing.*
7. Where feasible and consistent with other policies of this plan, new trails may be routed along existing levees.	*Levees will be an important component in the Bay Trail system. Existing trails in Hayward, Sunnyvale and Mountain View in the South Bay and Lower Tubb's Island in the North Bay are examples of levees which provide shoreline access. Because levees represent existing bay fill, they are one of the few options for trails in natural areas near the shoreline.*
8. Where existing trails through wetlands are well-maintained and well-managed, the Bay Trail can feasibly be routed there. In these cases, trails should be used according to current regulations. Alternate routes should be provided where necessary and additional buffering may be recommended where appropriate.	*The Bay Trail alignment incorporates a number of existing trails through wetlands, where there is an established use pattern and where the facilities are well-maintainted and well-managed. Among these are trails in the Hayward Regional Shoreline and near the Hayward Shoreline Interpretive Center. In other locations around the Bay, notably the Corte Madera Ecological Reserve, the Bay Trail has been routed inland, and marsh trails have not been incorporated into the Bay Trail alignment.*
9. In selecting a trail alignment, use existing stream, creek, slough and river crossings where they are available. This may require bridge widenings in some locations. In selecting trail alignments, new stream, creek and slough crossings should be discouraged. Where necessary because acceptable alternatives do not exist, bridging may be considered.	*The Bay shoreline is cut by a number of rivers, streams, creeks and sloughs. Use of existing fill (foot or vehicle bridges) is preferred for locating trail crossings. In some instances, existing foot and vehicle bridges can accommodate bicycle and pedestrian use. Where bridges are designed for vehicle use only, some widening or cantilevering trail sections on the esxisting structure may be necessary to accommodate trail users safely.*

Table III-2, continued

Bay Trail Policies

Trail Design Policies	Discussion
10. Provide access wherever feasible to the greatest range of trail users on each segment.	*It is the goal of the Bay Trail Plan that the full range of trail users be able to enjoy the trail, regardless of physical limitations due to age or disability. Separate standards have not been developed for "accessible trails"—segments of the trail which would be designed for disabled access. Accessibility guidelines have been incorporated throughout the trail design guidelines, which appear at the end of this table. This policy also refers to the Bay Trail Plan's goal to accommodate, as much as possible, the various modes of travel for which the trail is being designed (e.g., bicycling and hiking). Multiple use of trails will not always be possible or appropriate. In some instances, it may not be feasible to allow hikers or joggers on a specific portion of trail, due to traffic safety or environmental concerns. In other cases, use restrictions on existing trails may preclude bicycle access in some areas. The goal, however, is to have an alignment (or multiple alignments) that will meet the needs of all users.*
11. Create a trail that is as wide as necessary to accommodate safely the intended use, with separate alignments, where feasible, to provide alternative experiences.	*In some instances, competition among trail users for right-of-way may be relieved by providing a wide path. In other cases, separate facilities will be necessary. Throughways for long-distance bicycling will likely follow different routes than paths which are suitable for more leisurely bicycle activity, or for combined bicycle and pedestrian use.*
12. Highlight the interpretive potential of certain trail segments, including opportunities for interpretation, education, rest and view enjoyment.	*The Bay's varied landscapes offer opportunities for environmental and historical education, as well as a great diversity of natural and urban views. Enjoyment of the trail, especially by first-time trail users, can be enhanced by effective signing and other interpretive information and programs.*
13. Incorporate necessary support facilities, using existing parks, parking lots, and other staging areas wherever possible.	*Support facilities, such as parking lots, restrooms, water fountains, picnic tables and benches are important components of a trail system. They also have significant land use implications if they are not properly situated and designed. The Bay Trail alignment has been proposed to take advantage of existing facilities in parks and other shoreline access areas. As the trail is developed and use patterns emerge, the need for additional facilities can more accurately be evaluated and new or expanded facilities properly located and designed. Cooperative use of some existing private parking facilities may be possible by negotiating agreements between property owners and trail management agencies.*

Bay Trail Policies

Table III-2, continued

Trail Design Policies, continued	Discussion
14. Design the highest practical standards and regulations, depending on the nature and intensity of anticipated use, terrain, existing regulations, and standards on existing portions of the trail.	*In designing the trail, it will be important to ensure that new connecting segments of trail are built to a standard which not only is compatible with the terrain, but with existing trails, and to accommodate use restrictions on existing trails as well.*
15. Minimum and maximum standards by use, width, surface, etc. should be developed, to ensure safe enjoyment of the trail and compatibility with surroundings and existing facilities, and to encourage use and design of surfaces for which long-term maintenance will be cost-effective.	*The Advisory Committee adopted the trail design guidelines which appear at the end of this table. These guidelines identify minimum standards which meet CalTrans standards for bikeways and incorporate standards for accessibility.*
16. A consistent signing program should be established throughout the trail system, using a Bay Trail logo which will identify trails within the Bay Trail system as distinct from other connecting trails. The choice of materials used should be the concern of the individual implementing jurisdictions and agencies.	*Because the distance covered by the trail--roughly 400 miles--is so great, it will be important to maintain a consistent form of identification along the length of the trail, so that trail users can orient themselves easily. At the same time, it is important to ensure that Bay Trail signs are compatible with and complementary to trail signs used by managing agencies, and "public trail" identification signs required on B.C.D.C. trails.*
17. Design and route the trail to discourage use of undesignated trails.	*Undesignated trails can be observed in areas where formal trails do not exist. These informaal paths are also known as "casual," "bandit" or "social" trails. Use of these trails frequently creates severe environmental damage and destruction of habitat values. Proper alignment and design of formal trails can divert trail users away from areas where access should be restricted.*
18. Domestic pets should be prohibited on new trails. This prohibition is not intended to apply to service animals such as guide dogs.	*Uncontrolled animals on trails pose hazards to bicyclists as well as to wildlife. For this reason, the Advisory Committee recommends restrictions on domestic pets. It is not the Committee's intent, however, to interfere with the policy-making authority of managing agencies.*
19. The trailhead signing program should include information describing the relative difficulty of the trail as a guide for trail users with mobility limitations.	*Trail users with mobility limitations should be able to gauge the difficulty of trail sections before starting off down the path. Signage describing the relative difficulty of the trail (e.g., grades, trail surfaces, high winds) should be provided at staging areas.*

Table III-2, continued

Bay Trail Policies

Environmental Policies	Discussion
20. The Committee is aware of the ecological value of wetlands. In the San Francisco Bay Area, these areas serve as a vital link in the Pacific flyway for feeding, breeding, nesting and cover for migratory birds. To avoid impacts in wetland habitats, the Bay Trail should not require fill in wetlands, and should be designed so that use of the trail avoids adverse impacts on wetland habitats.	*The environmental issues recommendations reflect the Advisory Committee's strong concern that the Bay Trail respect habitat values. While the Committee has approved of trail alignments on existing fill (e.g., levees), the following policy language is clear in its intent that additional fill should not be necessary to accommodate the Bay Trail alignment.*
21. The Bay Trail should not be defined as a continuous asphalt loop at the Bay's edge, but as a system of interconnecting trails, the nature of which will vary according to the locale and the nature of the terrain and resouces in the vicinity of each particular trail segment.	*Some duplication between certain of the environmental protection policies and trail design policies will be apparent. The policies in this section differ slightly in that they reflect the more direct connection between environmental concerns and the policy intent represented by the recommendation. This policy reiterates the need to plan trail alignments and incorporate trail designs which respect the characteristics of the environment through which the trail passes.*
22. The path will not always follow the Bay shoreline; inland reaches may be more appropriate, especially for bicycle travel, in some parts of the bay region.	*As the proposed alignment reflects, some segments of the Bay Trail divert inland to avoid sensitive environments.*
23. The path should be designed to accommodate different modes of travel (such as bicycling and hiking) and differing intensities of use, possibly requiring different trail alignments for each mode of travel, in order to avoid overly intensive use of sensitive areas.	*In some locations, parallel trails are proposed to accommodate hiking and bicycling activity on separate paths. One example of this is the dual trail connection between Shoreline at Mountain View and the Palo Alto Baylands.*
24. Where the alignment of the Bay Trail may more appropriately be located away from the shoreline, access to shoreline areas may be possible by connecting the Bay Trail to existing loop trails and other interpretive facilities. These access points should be planned and designed to make clear the distinction between the continuous Bay Trail and the interpretive trail. (These may include different trail surfaces, marked entry points to interpretive areas, expanded facilities for education and shoreline interpretation, signage, regulation and enforcement of regulations.)	*As the alignment maps demonstrate, the Bay Trail will provide connections to interpretive trails within the San Francisco Bay National Wildlife Refuge. As connector trails, these paths will broaden the opportunities available to Bay Trail users.*

Table III-2, continued

Bay Trail Policies

Environmental Protection Policies, continued	Discussion
25 Provision of land or funds for Bay Trail planning or construction shall not be considered mitigation for wetland losses.	*This policy reiterates the very clear language in SB 100.*

Transportation Access Policies	Discussion
26. Bridges will be important connections in the Bay Trail system, providing not only commute routes, but enhancing the recreational use of the trail by creating trail loops which will allow a greater number of people to enjoy the trail.	*The proposed alignment shows Bay Trail connections across all seven of the major Bay Area toll bridges. This policy stresses the importance of bridge connections for both commute and recreational use.*
27. In the short term, attention should be focused on improving safe access to the bridges, possible expansion of bicycle shuttle services and public transit accommodations of bicycles to allow cross-bay access.	*This policy reflects the need to look to both short-and long-term solutions for creating bicycle and pedestrian access on bridges. Unconstrainted access (i.e., a path) is preferred for the flexibility that paths provide for trail users. Where this is not feasible, other alternatives should be pursued to provide cross-bay access for trail users.*
28. In the long term, unconstrained access on bridge structures is preferred. This can more easily be accomplished in planning future facilities, as long as public access is a requirement for new structures. Legislative action which would require bicycle and pedestrian access on new facilities should be actively sought.	*Current state law requires that bicycle access be considered in connection with construction of new bridges. If CalTrans determines that bicycle access is not feasible, physically or economically, it is required to report the basis for this finding to the Legislature. This policy reflects the need for a greater commitment to the provision of bicycle and pedestrian access in conjunction with construction of new bridges, due to the tremendous difficulty and cost associated with retrofit of a bridge structure once built without provision for bicycle access. Currently, CalTrans has plans for two new bridges in the Carquinez Strait—one in the vicinity of the Benicia-Martinez Bridge and one to replace the older span of the Carquinez Bridge*
29. Opportunities for cooperative funding of pedestrian and bicycle accessways should be investigated in order to make financing feasible.	*In some cases, it may be appropriate to seek joint funding for pedestrian and bicycle access facilities on bridges. Use of recreational funding as well as transportation funding may make bicycle and pedestrian access more economically feasible.*

Table III-2, continued

Bay Trail Policies

Preliminary Implementation Policies	Discussion
30. Establish "Friends of the Bay Trail." Investigate alternatives and develop details of operation and structure prior to July 1, 1989, to enable the organization to be operational as soon as feasible after adoption of the final Bay Trail Plan. Continue trail oversight, using the framework provided by the Regional Planning Committee. 31. Explore the establishment of a management authority to coordinate maintenance, patrolling and liability functions for portions of the Bay Trail.	*Three basic requirements have been identified for successful implementation of the Bay Trail Plan:* • *Advocacy* • *Coordination/Oversight* • *Management* *The implementation policies which appear here have been adopted as preliminary recommendations only. At the direction of the ABAG Executive Board, the Advisory Committee will continue its work in the spring of 1989, developing more explicit recommendations for Bay Trail financing and implementation. The final recommendations will be incorporated in the final Bay Trail Plan.*

Bay Trail Design Guidelines

Item	High-use Facilities (separate paths)[a]	Multi-Use Paths[a]	Bicycle-only Paths[a]	Hiking-only Paths	Natural Trails
Min. width (one-way)	8-10'	10'	8'	5'	3-5'[a]
Min. width (two way)	10-12'	10-12'	10-12'	8-10'	5'
Surface	asphalt[b]	asphalt	asphalt	hardened	natural or boardwalks[c]
Horiz. clearance (incl. shoulders))	12-16'	14-16'	10'	9-12'	7-9'
Shoulder	2' area on both sides of the trail.....				unspecified
Vert. clearance	10'.....				unspecified
Cross slope	2% Max.....				unspecified
Max. grades	5%[d] for short distances with flat rest areas at turn outs...				unspecified

[a] Standards meet Caltrans Class I Bikeway Standards
[a] Min. widths that are less than 5' will be required to have 5x5 turnouts at intervals to meet accessibility standards.
[b] High-use pedestrian path could be hardened surface other than asphalt
[c] Natural surfaces may require surface hardening to provide accessibilty.
[d] Except where site conditions require a greater slope for short distances.

Meeting the Mandate of SB 100

Providing Connections to Existing Park and Recreational Facilities

As the connecting feature of a system of shoreline open spaces, the Bay Trail will create connections between more than 90 parks and publicly-accessible open space areas around San Francisco Bay. Figure III-4 identifies some of the larger recreation and open space facilities with which the Bay Trail will connect. As Table III-3 suggests, this represents trail connections from Bay Trail spine and spur segments to more than 57,000 acres of publicly-accessible open space throughout the San Francisco Bay Area. Connector trails provide access to an additional 7000 acres of recreation and open space facilities.

These figures actually underrepresent the total amount of publicly-accessible land to which the Bay Trail will provide access. Not included in these figures, for example, is much of the BCDC-required public access trail network along the shoreline, and numerous small community parks and playgrounds.

The Bay Trail will enable outdoor enthusiasts to appreciate the Bay not only from the shoreline looking toward the water, but from the water looking toward the shore as well. Boating, recreational fishing and sports hunting are popular activities throught the Bay. By establishing trail connections to "water trails"--commercial ferries, public boat launches and fishing piers--the Bay Trail will multiply the recreational benefits associated with the trail. The magnitudof boating and fishing facilities on the Bay is explored in Table III-5. Locations of ferry terminals and boat launches are illustrated in Figure III-5.

Providing Links to Existing and Proposed Transportation Facilities

Creation of a continuous trail around the Bay focuses attention on the importance of the Bay Area's toll bridges as regional connectors. Completion of a recreational "ring around the Bay" requires trail connections between San Francisco and Marin, where the Golden Gate Bridge already provides bicycle and pedestrian paths, as well as across the Carquinez Strait, where no trail access currently exists. The Bay Trail alignment proposes connections across all seven of the Bay Area's toll bridges; this will create a series of trail "loops" which will provide shorter, non-repetitive excursions for hikers and bicyclists of varying abilities.

In planning the Bay Trail alignment, great care was taken to provide connections to local and regional transit. Figure III-6 illustrates the relationship between the Bay Trail and fixed-guideway transit systems. Although at present these facilities are not widely used for recreational access, service on such carriers as BART, Santa Clara County's light rail trolley system, and Caltrain have enormous potential for serving recreational, as well as commute purposes. BART and the Santa Clara County trolley system currently allow bicycles on board. Bicycle advocates continue to work for expanded opportunities on other transit systems as well.

The importance of incorporating transit facilities into the trail system will become more apparent as staging areas (primarily parking facilities) for shoreline recreation facilities become more and more crowded. Creating convenient alternatives for reaching shoreline trails and recreation areas will reduce the burden on existing facilities and will suppress the need to build costly new ones. Another long-term benefit may be that new populations are introduced to local transit service, furthering regional efforts to encourage public transit as a commute alternative.

Finally, the trail alignment has been designed to interface with existing and planned local bikeway systems. Most local jurisdictions plan on-street bicycle lanes (Class II bikeways) or bicycle routes (Class III bikeways) through urban areas to encourage bicyclists to use safer cycling routes. The Bay Trail alignment has, where possible, incorporated these local systems into on-street segments of the trail. Where this was not possible, the Plan attempts to provide connections to local bicycle facilities, creating a bikeway grid that will be useful not only for recreational cyclists, but for commute cyclists as well.

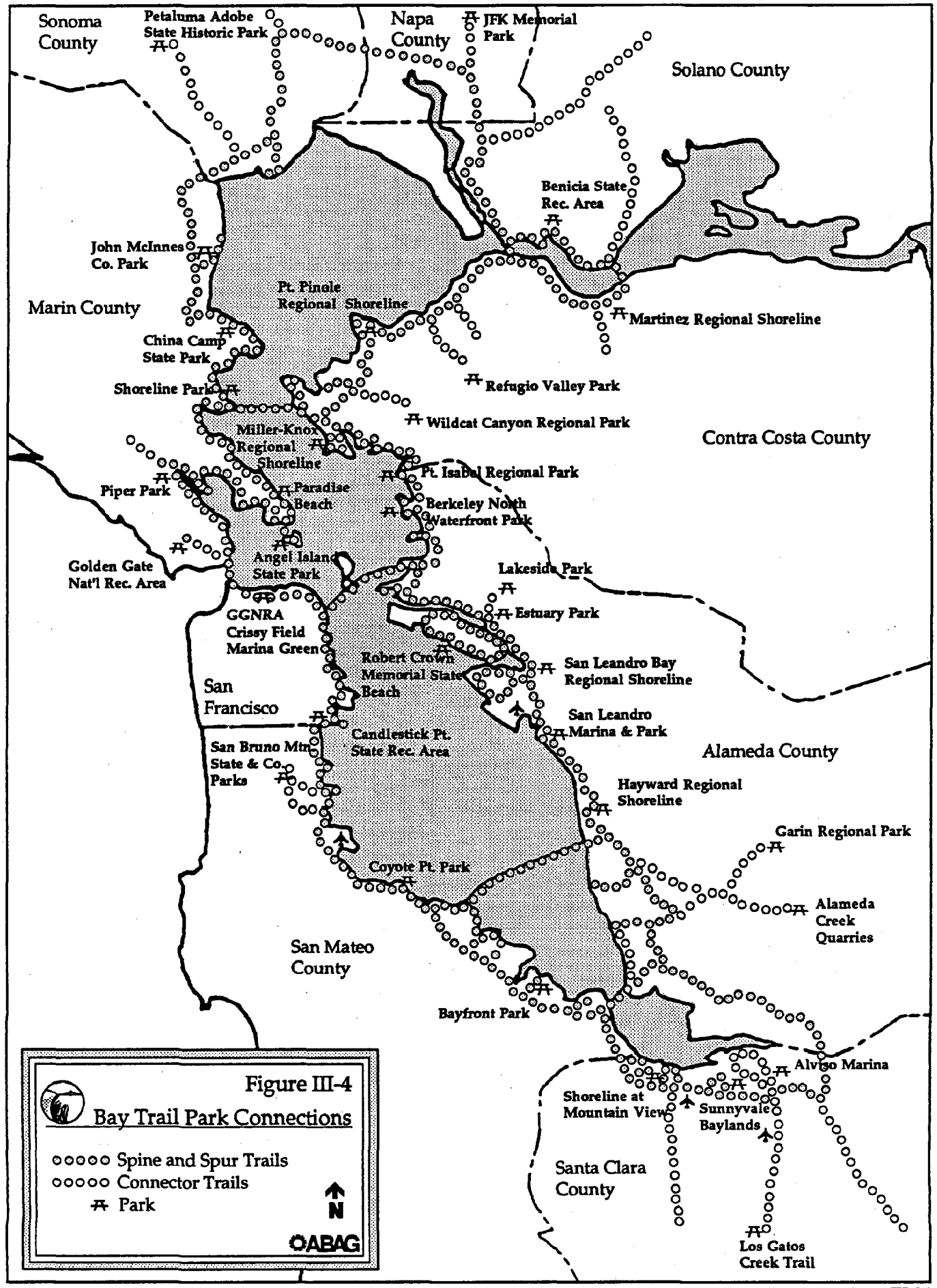

Sonoma County
Petaluma Adobe State Historic Park
Napa County
JFK Memorial Park
Solano County
Benicia State Rec. Area
John McInnes Co. Park
Marin County
Pt. Pinole Regional Shoreline
Martinez Regional Shoreline
China Camp State Park
Refugio Valley Park
Shoreline Park
Wildcat Canyon Regional Park
Contra Costa County
Miller-Knox Regional Shoreline
Pt. Isabel Regional Park
Piper Park
Paradise Beach
Berkeley North Waterfront Park
Golden Gate Nat'l Rec. Area
Angel Island State Park
Lakeside Park
Estuary Park
GGNRA Crissy Field Marina Green
Robert Crown Memorial State Beach
San Leandro Bay Regional Shoreline
San Francisco
San Leandro Marina & Park
Candlestick Pt. State Rec. Area
San Bruno Mtn State & Co. Parks
Alameda County
Hayward Regional Shoreline
Garin Regional Park
Coyote Pt. Park
Alameda Creek Quarries
San Mateo County
Bayfront Park
Alviso Marina
Shoreline at Mountain View
Sunnyvale Baylands
Santa Clara County
Los Gatos Creek Trail
Figure III-4
Bay Trail Park Connections
Spine and Spur Trails
Connector Trails
Park
N
ABAG

Table III-3 Public Lands Accessible from the Proposed Bay Trail
Peninsula/South Bay Reach

Facility Name	City Location	Agency	Primary Use	Access	Acreage
San Francisco City & County					
Candlestick Point State Rec. Area	San Francisco	State Parks	Recreation	Open	135
Fort Point National Historic Site	San Francisco	National Parks	Historic[2]	Open	29
Golden Gate National Rec. Area	San Francisco	National Parks	Recreation[2]	Open	586
Marina Green	San Francisco	City/County	Recreation	Open	74
Presidio of San Francisco	San Francisco	Army	Military	Open	1774
Subtotal					2598
San Mateo County					
Bayfront Park	Menlo Park	City	Recreation[2]	Open	160
Bayside Park	Burlingame	City	Recreation	Open	12
Brisbane Lagoon	Brisbane	City	Recreation	Open	122
Coyote Point	San Mateo	County	Recreation	Open	727
Foster City Wildlife Refuge	Foster City	City	Recreation	Open	33
Marina Park	Belmont	City	Recreation	Open	22
Orange Memorial Parkc	S. San Francisco	City	Recreation	Open	30
Ravenswood Baylands	Menlo Park	MROSD	Habitat[1]	Restricted	372
Redwood City Municipal Marina	Redwood City	City	Recreation	Open	20
Redwood Shores Ecolog.	Redwood City	Ca Fish & Game	Habitat	Open	152
San Bruno Mtn Parkc	San Mateo Co.	County	Habitat[1]	Open	2054
San Bruno Mtn. State Parkc	San Mateo Co.	State Parks	Recreation	Open	298
SF Bay Nat'l Wildlife Refuge	San Mateo Co.	US Fish & Wildlife	Habitat	Restricted	4301
Sea Cloud Park	Foster City	City	Recreation	Open	26
Shoreline Park	San Mateo	City	Recreation	Open	41
Tom Fry Golf Course	San Mateo	City	Recreation	Open	111
Subtotal					8481
Santa Clara County					
Alviso Marina	San Jose	County	Recreation	Open	29
Coyote Creek Parkc	San Jose	County	Recreation	Open	223
Coyote Creek Park Chainc	San Jose	City	Recreation	Open	399
Los Gatos Creek Parkc	San Jose	County	Recreation	Open	30
Palo Alto Baylands Preserve	Palo Alto	City	Recreation	Open	2134
Palo Alto Municipal Golf Course	Palo Alto	City	Recreation	Open	184
SF Bay Nat'l Wildlife Refuge	Santa Clara Co.	US Fish & Wildlife	Habitat	Restricted	4301
Shoreline at Mountain View	Mountain View	City	Recreation	Open	544
Stevens Creek Nature Study Area	Mountain View	MROSD	Habitat[1]	Open	54
Sunnyvale Baylands	Sunnyvale	City/County	Recreation	Open	217
Subtotal					8115

Recreation-related 6157 acres (primary use)
8637 acres (primary & secondary use)

Habitat-related: 11,234 acres (primary use)
12,009 acres (primary & secondary use)

Other: 1803 acres (primary use)

Total Peninsula/South Bay Reach 19,194

[c]Access from connector trail
[1]Recreation is a secondary use
[2]Habitat is a secondary use
MROSD: Midpeninsula Regional Open Space District
Source: People for Open Space/Greenbelt Congress. Public Lands Database for the San Francisco Bay Area. March 1988.

Table III-3 **Public Lands Accessible from the Proposed Bay Trail**
Peninsula/South Bay Reach

Facility Name	City Location	Agency	Primary Use	Access	Acreage
Alameda County					
Albany Point	Albany	City	Recreation	Open	32
Aquatic Park[c]	Berkeley	City	Recreation	Open	33
Ardenwood Regional Preserve	Fremont	EBRPD	Historic[1]	Open	208
Casa Verde Park[c]	Union City	City	Recreation	Open	17
Coyote Hills Regional Park	Fremont	EBRPD	Recreation[2]	Open	966
Crown Beach	Alameda	EBRPD	Recreation[2]	Open	383
Crown Memorial State Beach	Alameda	State Parks	Recreation	Open	131
Galbraith Golf Course	Oakland	City	Recreation	Open	169
Garin Regional Park[c]	Hayward/Union	EBRPD	Recreation	Open	1317
Hayward Regional Shoreline	Cy Hayward	EBRPD	Recreation[2]	Open	817
Hayward Shoreline Interp. Center	Hayward	HARD	Recreation[2]	Open	800
Lakeside Park[c]	Oakland	City	Recreation	Open	122
Marina Park	San Leandro	City	Recreation	Open	30
Municipal Golf Course	Alameda	City	Recreation	Open	300
North Waterfront Park	Berkeley	City	Recreation	Open	90
Oyster Bay Regional Shoreline	San Leandro	EBRPD	Recreation[2]	Open	157
SF Bay Nat'l Wildlife Refuge	Fremont	US Fish & Wildlife	Habitat	Restricted	3603
San Leandro Bay Reg'l Shoreline	Oakland	EBRPD	Recreation[2]	Open	663
Sportsfield Park	Newark	City	Recreation	Open	26
Washington Park	Alameda	City	Recreation	Open	14
Subtotal					9878
Contra Costa County					
Davis Park	San Pablo	City	Recreation	Open	16
Carquinez Open Space	Martinez	City	Recreation	Open	100
Carquinez Strait Reg'l Shoreline	Contra Costa Co.	EBRPD	Recreation[2]	Open	147
Miller Knox Regional Shoreline	Richmond	EBRPD	Recreation[2]	Open	259
Martinez Regional Shoreline	Martinez	EBRPD	Recreation[2]	Open	343
Point Isabel Regional Shoreline	Richmond	EBRPD	Recreation	Open	21
Point Pinole Regional Shoreline	Richmond	EBRPD	Recreation[2]	Open	2147
Rankin Park	Martinez	City	Recreation	Open	30
San Pablo Bay Reg'l Park	Pinole/Hercules	EBRPD	Habitat	not yet	56
Waterfront Park	Martinez	City	Recreation	Open	10
Wildcat Canyon[e]	Richmond	EBRPD	Recreation	Open	2420
Subtotal					5549

Recreation-related 11,560 acres (primary use)
Habitat-related: 3659 acres (primary use)
10,549 acres (primary & secondary use)

Other: 208 acres (primary use)

Total East Bay Reach acres: 15,427

[c]Access from connector trail
[1]Recreation is a secondary use
[2]Habitat is a secondary use

EBRPD: East Bay Regional Park District
HARD: Hayward Area Recreation & Park District

Source: People for Open Space/Greenbelt Congress. Public Lands Database for the San Francisco Bay Area. March 1988.

Public Lands Accessible from the Proposed Bay Trail — Table III-3
North Bay Reach

Facility Name	City Location	Agency	Primary Use	Access	Acreage
Solano County					
Benicia State Recreation Area	Benicia	GVRPD	Recreation	Open	450
Glen Cove Waterfront	Vallejo	GVRPD	Recreation	Open	15
Marina Park	Vallejo	GVRPD	Recreation	Open	12
River Park	Vallejo	GVRPD	Flood Control[1]	Open	55
Subtotal					532
Napa County					
Kennedy Park[c]	Napa	City	Recreation	Open	340
Subtotal					340
Sonoma County					
Petaluma Adobe State Historic Pk[c]	Petaluma	State Parks		Open	41
San Pablo Bay Nat'l Wildlife Refg. (Lower Tubbs Island)	Sonoma Co.	US Fish & Wildlife	Historic[1] Habitat[1]	Open	332
Sonoma State Historic Park[c]	Sonoma	State Parks	Historic[1]	Open	64
Subtotal					437
Marin County					
Angel Island State Park	Tiburon	State Parks		Open	758
Blackie's Pasture	Belvedere	City	Recreation	Open	14
Bothin Marsh Open Space Pres.	Mill Valley	MCOSD	Recreation	Open	112
China Camp State Park	San Rafael	State Parks	Recreation[2]	Open	1512
Corte Madera Marsh Ecol Pres	Corte Madera	Ca Fish & Game	Recreation	Open	621
Dunphy Park	Sausalito	City	Habitat	Open	10
Golden Gate National Rec. Area	Marin Co.	Nat'l Parks	Recreation	Open	23,155
Co. Fairgrounds & Civic Center	San Rafael	County	Recreation[2]	Open	140
McInnis Park	San Rafael	County	Recreation	Open	441
McNears Beach County Park	San Rafael	County	Recreation[2]	Open	52
Paradise Beach County Park	Tiburon	County	Recreation	Open	19
Pickleweed Park	San Rafael	County	Recreation	Open	25
Piper Park[c]	Larkspur	City	Recreation	Open	30
Richardson Bay Park	Tiburon	City	Recreation	Open	55
Richardson Bay Open Space	Tiburon	MCOSD	Recreation	Open	113
Richardson Bay Wildlife Pres.	Tiburon	Audubon	Habitat[1]	Open	891
Ring Mountain Open Space Pres.	San Rafael	Sempivirons Fund	Habitat[1]	Open	377
San Rafael Bayfront	San Rafael	MCOSD	Habitat	Open	121
Strawberry Recreation District	Tiburon	Strawberry Rec. Dist.	Habitat[1]	Open	48
Tiburon Uplands Nature Preserve	Tiburon	County	Recreation Recreation[2]	Open	24
Subtotal					28,518

Recreation-related: 27,212 acres (primary use)
28,829 acres (primary & secondary use)

Habitat-related: 2455 acres (primary use)
26,187 acres (primary & secondary use)

Total North Bay Reach 29,827

[c]Access from connector trail
[1]Recreation is a secondary use
[2]Habitat is a secondary use

GVRPD: Greater Vallejo Recreation & Park District
MCOSD: Marin County Open Space District

Source: People for Open Space/Greenbelt Congress. Public Lands Database for the San Francisco Bay Area. March 1988.

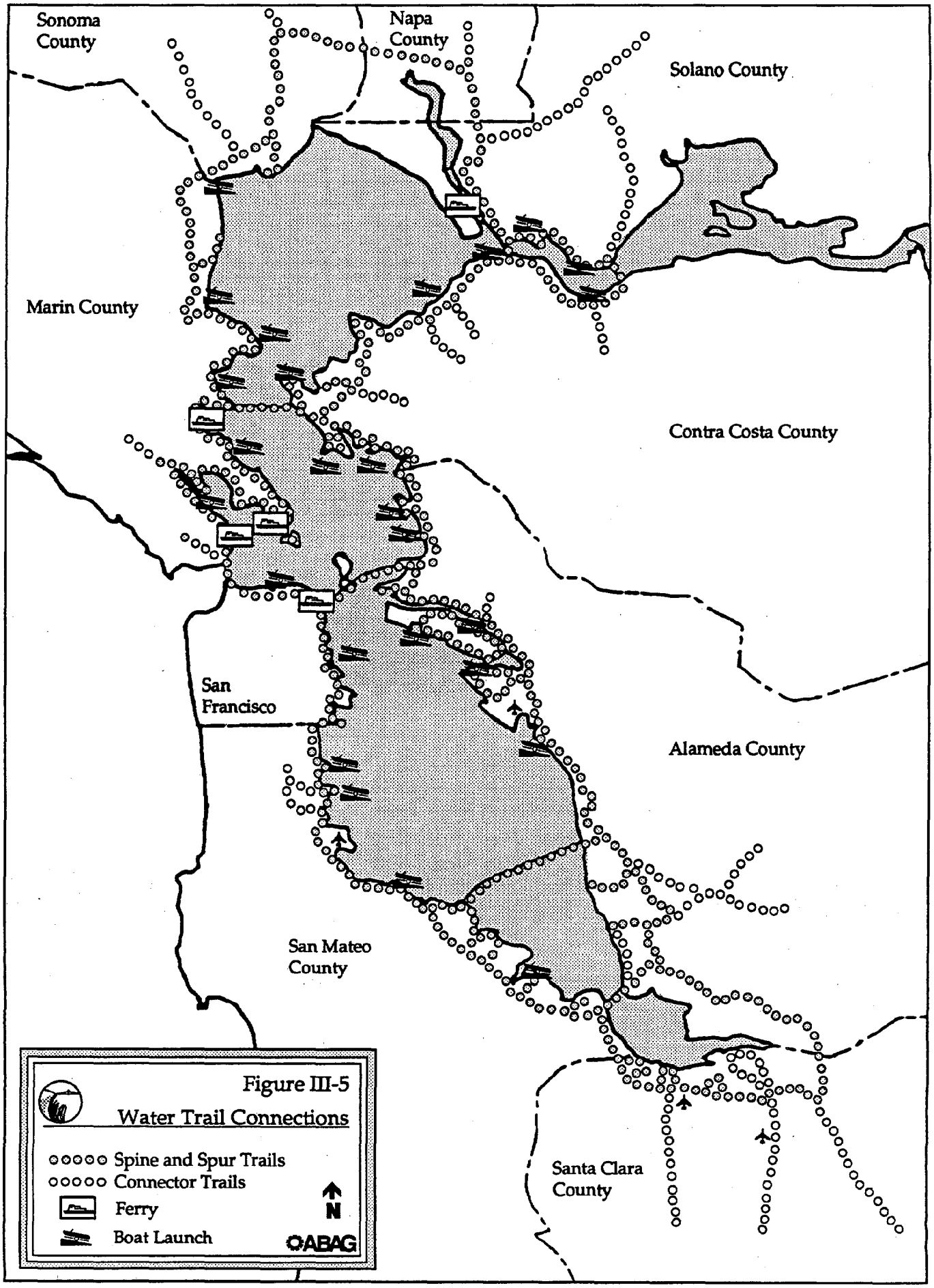
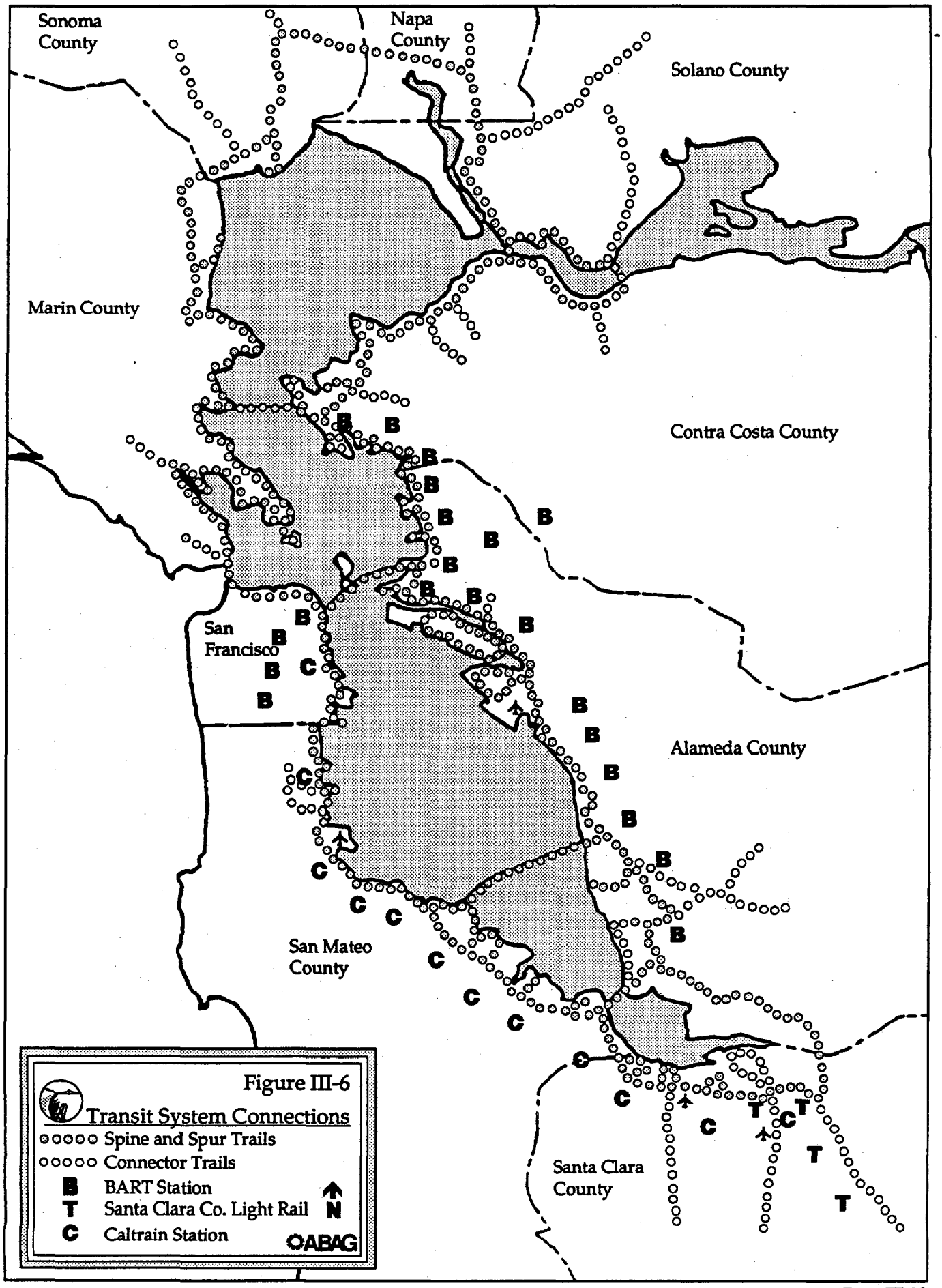


Figure III-5
Water Trail Connections


Sonoma County
Napa County
Solano County
Marin County
Contra Costa County
San Francisco
Alameda County
San Mateo County
Santa Clara County
Figure III-6
Transit System Connections
Spine and Spur Trails
Connector Trails
BART Station
Santa Clara Co. Light Rail
Caltrain Station
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ABAG

Table III-4

Boating and Fishing Facilities of the San Francisco and San Pablo Bays

County	Marinas		Boat Launches	Fishing Piers
	Public	Private		
Alameda	15	15	9	5
Contra Costa	3	11	6	1
Marin	1	15	12	2
Napa	0	2	2	2
San Francisco	4	5	1	1
San Mateo	4	4	5	1
Santa Clara	2	0	1	0
Solano	1	4	3	2
Sonoma	1	2	0	0
Total	21	59	39	14

Sources: State of California, Dept. of Boating and Waterways. Inventory of California Boating Facilities.1986
Bay Planning Coalition. The Saved Bay: A Catalogue of the Protected Areas of the San Francisco Bay.1987

Protecting Sensitive Natural Environments

Many of the Bay Trail policies were designed specifically to address the need to protect sensitive natural environments. No new solid Bay fill has been proposed to accommodate the trail. In one location—the Moffett Field Naval Air Station "gap" between existing shoreline trails in Mountain View and Sunnyvale—pier-supported fill in the form of a boardwalk trail has been proposed as one of two alternate alignments. This was done because the boardwalk alternative appears to be provide's wildlife greater protectionfromdisturbance than a levee trail in that location. In all other cases, the Plan proposes trails only on existing fill (e.g., levees around salt ponds).

The use of a trail system which includes spine, spur and connector trails serves to protect natural areas, by routing the majority of trail users along the spine trail. In this way, existing bayland trails in environmentally-sensitive areas are reserved for trail users who specifically intend to pursue a more interpretive, as opposed to recreational, trail experience.

As the proposed design guidelines indicate, the trail design is intended to vary according to the terrain and the nature of the natural or built environment through which it passes. This means that trails in more natural environments will reflect by design, as well as by regulation, the need to respect more natural areas, preserve them from urban-scale use.

Finally, Bay Trail policies and design guidelines are intended to complement, rather than supplant adopted regulations and design specifications promulgated by local managing agencies. Restrictions on the appropriate use of trails (e.g., hiking only, no pets) which serve to protect natural areas in which trails currently exist, will not be weakened through implementation of the Bay Trail.

Section IV
Next Steps: A Framework for Implementation

- Financing Challenges
- Implementation Strategies
- Next Steps

While the Bay Trail is a regionally-shared vision, it will require ongoing, coordinated local and regional action if it is to become a reality. Responsibility for promoting and implementing the trail must be shared by the hundreds of independent jurisdictions, agencies, foundations and organizations that currently operate in the realm of recreation and open space provision in the Bay Area. The framework for implementing the Bay Trail must, therefore, be inclusionary--not exclusionary.

The Advisory Committee recognizes that recommendations for trail financing and implementation will create the foundation for successful development of the Bay Trail. Included here are the Committee's very preliminary recommendations. During the Spring of 1989, concurrent with public review of the draft Bay Trail policies and alignment, the Advisory Committee will develop final recommendations for financing and implementing the plan.

Financing Challenges

Roughly one-third of the Bay Trail is already in place, as class I paths or class II bicycle lanes along streets and roads. The remaining 270 miles along the proposed alignment remain to be developed. Using the construction cost estimates for class I and class II facilities listed in Table IV-1, the construction costs alone for completing the Bay Trail range from $5 million (if the remaining trail were to be developed entirely as class II bicycle lanes) to $34 million (the high-end estimate for class I trails). Neither of these figures is likely to be the Bay Trail financing target. The remaining 270 miles of unbuilt trail will not be developed entirely as class I trails or as class II facilities; as the Bay Trail policies outline, there will necessarily be a mix of trail types, determined by local needs and conditions.

These rough cost estimates are provided merely to suggest the financing challenge facing the Bay Trail. These figures do not include:

- the cost of acquiring land or easements for publicly-built segments of the trail,
- the cost of road widening to accommodate class II bicycle lanes (if necessary),
- additional costs associated with preparing the site for trail construction (e.g., grading),
- periodic maintenance costs (e.g., levee reconstruction),
- costs associated with routine trail maintenance, and
- costs for ongoing trail management (e.g., patrolling, liability costs).

The answer to these needs will not be found in any single source of funds. Development of the trail will rely on many different sources of funding, used incrementally and judiciously to realize the dream of a "ring around the Bay." The Bay Trail Advisory Committee will continue to develop estimates of funding needs and to identify the myriad sources of money that may be available to fund construction and management of the trail. These cost estimates and recommended funding sources will be included in the final Bay Trail Plan.

Table IV-1

Trail Construction Cost Estimates

Trail Feature	Specifications	Unit	Cost of Material & Labor Low	High
Class I (Path): 8' wide				
Asphalt path	2" on 4" asphalt base	per mile	$ 95,000	$ 126,700
Decomposed granite path	without headers	per mile	$ 42,240	$ 63,360
	with headers	per mile	$ 75,000	$ 90,000
Bridge	without installation	60' long	$ 6,000	$ 21,500
	with installation	60' long	$ 14,000	$ 36,500
Class II (Bike Lane): 8' wide				
Signing, striping, and legends	-	per mile	$ 19,000.	
• Traffic post and sign	-	each	$ 160.	
• 4" solid white line	2 coats	linear foot	$ .30	
• Legend	2 coats	each	$ 30.	
Grate modification	-	per mile	$ 1,900	

Sources: Cities of Martinez and Sacramento; Contra Costa County; Shoreline at Mountain View; Continental Bridge, Inc.

Implementation Strategies—Preliminary Recommendations

The discussion in this section of the plan contains preliminary information and recommendations. It has been included here to illustrate the issues which must be addressed in the implementation component of the final plan.

Successful implementation of the Bay Trail Plan will require:

- Advocacy—continuing advocacy at local and regional levels for completion of the trail
- Coordination/Oversight—ongoing coordination and oversight of trail implementation
- Management—cost-efficient alternatives for trail management (maintenance, patrolling, liability)

Strong advocacy, coordination and oversight programs are needed to:

- promote the regional vision of a Bay Trail,
- publicize the trail, building general public support for Bay Trail implementation,
- generate community-based support for development of local trail segments,
- involve existing organizations and agencies in supporting efforts to implement the trail,
- coordinate regional, subregional and local agency efforts to implement the trail in a timely manner,
- raise funds for specific trail acquisition and development projects,
- solicit corporate support for trail development and improvements,
- promote "adopt-a-trail" programs to generate publicity and community financial support,
- provide information and coordinate assistance to local agencies regarding trail funding, design, development and management issues, and
- provide general oversight of Bay Trail implementation, consistent with SB 100.

Management issues, particularly trail maintenance, patrolling and exposure to liability have been identified as potential barriers to successful implementation of the Bay Trail. Trail management assistance, possibly in the form of a management authority, can be used to:

- facilitate cooperative agreements between jurisdictions for trail maintenance and patrolling,
- contract for enforcement of trail maintenance requirement of private landowners (e.g., through BCDC enforcement programs), and
- provide a trail management alternative for agencies which are unable to commit to long-term trail management, especially in the area of liability coverage.

In some parts of the Bay Area, particularly where regional open space or park districts exist, cooperative agreements and contracts between local agencies may be developed to coordinate trail management responsibilities. In other geographic areas, more assistance will be needed to provide similar opportunities for cooperative action and cost-sharing programs.

In November 1988, the Bay Trail Advisory Committee approved the following recommendations, with the understanding that they were to be considered preliminary recommendations until further work had been completed:

- Establish "Friends of the Bay Trail." Investigate alternatives and develop details of operation and structure prior to July 1, 1989, to enable the organization to be operational as soon as feasible after adoption of the final Bay Trail Plan.

- Continue trail oversight, using the framework provided by the Regional Planning Committee.

- Explore the establishment of a management authority to coordinate maintenance, patrolling and liability functions for portions of the Bay Trail.

In approving these recommendations, the Advisory Committee asked the ABAG Executive Board to provide specific direction to the Committee to continue exploring ways to finance and implement the Bay Trail. On December 17, in approving the draft Bay Trail policies, the Executive Board directed to the Advisory Committee to "explore institutional, representational and implementation factors within a firm ABAG context." The Advisory Committee will continue its work on these issues, preparing final recommendations for inclusion in the final Bay Trail Plan.

Next Steps

The first step in the Bay Trail process is now underway. This draft plan has been prepared for review by public agencies, recreational organizations, environmental interests and citizens throughout the Bay Area. Comments on the draft plan will be reviewed by the Bay Trail Advisory Committee, as well as ABAG's Regional Planning Committee and Executive Board. Reviewers of this report are encouraged to provide written comments. These should be sent to:

ABAG--Bay Trail Plan
P.O. Box 2050
Oakland, CA 94604

Please phone the Bay Trail Information Line for complete information about upcoming meetings at which the draft plan and public comments will be received and reviewed.

A plan of action for implementing the trail will be included in the Advisory Committee's final recommendations for Bay Trail implementation, and will be incorporated into the final report. Those who are interested in becoming more actively involved in the Bay Trail process should write to the Bay Trail Program at the above address, or call the 24-hour Bay Trail Information Line (415) 464-7975.

Section V
References

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Section VI
Appendices

- **Senate Bill 100**
- **Bay Trail Committees**

  ABAG Executive Board
  ABAG Regional Planning Committee
  Bay Trail Advisory Committee

Senate Bill No. 100

Introduced by Senators Lockyer, Boatwright, Keene, Kopp, Marks, McCorquodale, Morgan, Nielsen, and Petris. (Coauthors: Assembly Members Agnos, Baker, Bates, Willie Brown, Campbell, Cortese, Duplissea, Eastin, Filante, Hannigan, Hansen, Harris, Isenberg, Klehs, Quackenbush, Speier, and Vasconcellos.)

The people of the State of California do enact as follows:

SECTION 1. Chapter 11 (commencing with Section 5850) is added to Division 5 of the Public Resources Code, to read:

Chapter 11. SAN FRANCISCO BAY AREA BIKEWAY SYSTEM

5850 The Association of Bay Area Governments shall develop and adopt a plan and implementation program, including a financing plan, for a continuous recreational corridor which will extend around the perimeter of San Francisco and San Pablo Bays. The plan shall include a specific route of a bicycling and hiking trail, the relationship of the route to existing park and recreational facilities, and links to existing and proposed public transportation facilities.

The plan shall do all of the following:

(a) Provide that designated environmentally sensitive areas, including wildlife habitats and wetlands, shall not be adversely affected by the trail.
(b) Provide for appropriate buffer zones along those portions of the bikeway system adjacent to designated environmentally sensitive areas.
(c) Provide that the land and funds used for trail construction and planning are not considered mitigation for wetlands losses.
(d) Provide alternative routes to avoid impingement on environmentally sensitive areas.
(e) Provide that no motorized vehicles, except to the extent necessary for emergency services, be allowed on the trail.

The association shall submit the plan to the Legislature not later than January 1, 1989.

5851. The Association of Bay Area governments shall establish a policy committee, which includes members of appropriate environmental organizations, to oversee development and implementation of the trail.

A cooperative working relationship shall be established with the San Francisco Bay Conservation and Development Commission, the Metropolitan Transportation Commission, state and federal agencies, and all other cities, counties, and districts, including school districts, which are affected by the proposed trail.

The association shall establish an advisory committee representing groups concerned with environmental and ecological protection of the bay and groups representing bicycling and other relevant recreational activities.

SEC. 2. Section 99234 of the Public Utilities Code is amended to read:
99234: (a) Claims for facilities provided for the exclusive use of pedestrians and bicycles or for bicycle safety education programs shall be filed according to the rules and regulations adopted by the transportation planning agency.
(b) The money shall be allocated for the construction, including related engineering expenses, of those facilities pursuant to procedures or criteria established by the transportation planning agency for the area within its jurisdiction, or for bicycle safety education programs.
(c) The money may be allocated for the maintenance of bicycling trails which are closed to motorized traffic pursuant to procedures or criteria established by the transportation planning agency for the area within its jurisdiction.

(d) The money may be allocated without respect to Section 99231 and shall not be included in determining the apportionments to a city of county for purposes of Sections 99233.7 to 99233.9, inclusive.

(e) Facilities provided for the use of bicycles may include projects that serve the needs of commuting bicyclists, including, but not limited to, new trails serving major transportation corridors, secure bicycle parking at employment centers, park and ride lots, and transit terminals where other funds are unavailable.

(f) Notwithstanding any other provision of this section, a planning agency established in Title 7.1 (commencing with Section 66500) of the Government Code may allocate the money to the Association of Bay Area Governments for activities required by Chapter 11)(commencing with Section 5850) of Division 5 of the Public Resources Code.

(g) Within 30 days after receiving a request for a review from any city or county, the transportation planning agency shall review its allocations made pursuant to Section 99233.3.

SEC.3. No reimbursement is required by the act pursuant to Section 6 of Article XIII B of the California Constitution because this act is in accordance with the request of a local agency or school district which desired legislative authority to carry out the program specified in this act.

SEC. 4. This act is an urgency statute necessary for the immediate preservation of the public peace, health or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are:

In order to permit the development of a continuous recreational corridor around the perimeter of San Francisco and San Pablo Bays and to thereby provide urgently needed recreational facilities at the earliest possible time, it is necessary that this act take effect immediately.

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More detailed alignment maps than those in Figure III-3 are available by county. The following County Reach maps have been included with this report:

- ❒ Alameda County
- ❒ Contra Costa County
- ❒ Marin County
- ❒ Napa County
- ❒ San Francisco City and County
- ❒ San Mateo County
- ❒ Santa Clara County
- ❒ Solano County
- ❒ Sonoma County

Please call the Bay Trail Information Line (415) 464-7975, for information about obtaining additional County Reach Maps.

A word about ABAG...

The Association of Bay Area Governments (ABAG) is owned and operated by the cities and counties of the San Francisco Bay Area. It was established by them in 1961 to protect local control, plan for the future, and promote cooperation on areawide issues.

ABAG was the first Council of Governments in California. It is one of 534 regional planning agencies across the nation working to help solve problems in areas such as environmental quality, housing, transportation and economic development.

Through its role as an association of cities and counties, ABAG has been designated by the state and federal governments as the official comprehensive planning agency for the Bay Area. Its locally adopted Regional Plan provides a policy guide for planning the region's housing, economic development, environmental quality, transportation, recreation, health and safety.

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