

City of Sebastopol Laguna de Santa Rosa

Park Master Plan

VOLUME I MASTER PLAN

Prepared by
Hyden Associates
Landscape Architecture
&
Golden Bear Biostudies

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INTRODUCTION

The Laguna de Santa Rosa, known locally as the Laguna, is critical to the essence of Sebastopol. It is integral to the surrounding habitats which support the diverse plant and wildlife communities identified with Sebastopol. It is an essential influence in the layout of the City's infrastructure and buildings which create a town image uniquely Sebastopol. It is also a vital part of the landscape that creates the open space and scenic views which are part of Sebastopol's charisma.

The following is a Park Master Plan for the development of a linear park along the Laguna within the City of Sebastopol and its sphere of influence. This plan addresses many recreational, environmental, developmental, and management issues that affect the Laguna. It offers a program that will protect, preserve and enhance the Laguna while recognizing and incorporating recreation and commercial development necessary for the social and economic well being of the Community.

In addition, this plan strives to recognize the regional character of the Laguna and how it influences and is influenced by elements and activities beyond our immediate planning area.

A substantial amount of technical information was gathered and analyzed in order to synthesize the master plan. To provide this information in the final report without affecting the readability of the main concepts of the plan, it has been divided into two volumes. Volume 1 consists of an overview of the planning process, goals of the plan, the master plan, and related cost, maintenance, and funding information. Volume 2 consists of the information used to arrive at the master plan described in Volume 1. It contains a description of existing conditions in the planning area, opportunities and constraints offered by the site and proposed development programs, as well as several technical appendices.

THE PLANNING PROCESS

This planning process was the culmination of efforts begun years earlier when the City's 1982 General Plan recognized the resource potential of the Laguna de Santa Rosa and identified it as a site for the development of a linear park. In 1988, efforts to protect the Laguna and develop the linear park were furthered by the City Council's appointment of a Laguna Advisory Committee. The Council directed the committee to "look at ways, and make recommendations to the City Council, on how to further protect the Laguna de Santa Rosa, its flora and fauna, in terms of possible "nature preserve", public land acquisition, trusts, purchase of development easements; and programs, projects and enhancement; and development of a management plan". One of the many recommendations from the Laguna Advisory Committee was to begin study, planning, and implementation of the Laguna Linear Park.

In October 1990, the City issued a request for proposals from design firms to develop a master plan for the Laguna Park.

In March of 1991, the City of Sebastopol selected Hyden Associates and Golden Bear Biostudies to prepare a park master plan for the Laguna de Santa Rosa.

Planning Approach

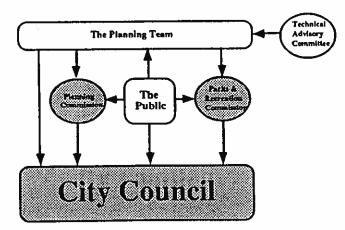
Defining the Community's needs and desires was a major consideration of the planning process. In addition, understanding the attitudes and requirements of public agencies with management and regulatory responsibility over the study area and adjacent lands was another major consideration in developing a workable master plan.

To assist the planning team with these tasks, a Technical Advisory Committee (TAC) was formed. The TAC was made up of individuals representing interested organizations and review agencies from the community. The TAC and a comprehensive

system of public input and review were two major elements of the planning process. Figure 1 is a organization diagram of the major participants in the planning process.

In establishing a TAC, the City Council invited several organizations and interested individuals to participate. Of the people invited to join the TAC the following individuals played an active role:

Patty Holden, City of Sebastopol Parks and Recreation Commission Kim Cordell, The Laguna Foundation Fran Murphy, City of Sebastopol Planning Commission Cynthia Ketelsen, City of Sebastopol Design Review Board Mindi Marshall, Sebastopol Youth Sports Organization Sue Kelly, City of Sebastopol Department of Public Works Richard Spitler, City of Sebastopol Planning Department John Cummings, The Laguna Foundation Cam Perry, Sebastopol Chamber of Commerce Bill Cox, California Department of Fish and Game Mary Bowers, The Sebastopol Community Center Harold Appleton, The Laguna Foundation Chuck Krause, The Marin-Sonoma Mosquito Abatement District Tom Steizner, The Sebastopol Senior Activity Center Robert Sharp, The Laguna Foundation Miles Ferris, City of Santa Rosa Public Utilities Department



Organization Diagram Figure 1

The TAC served two important functions in the planning process. First of all, the TAC provided the planning team with constant input from interested organizations and agencies which had a major influence over the final approval of the plan. This allowed the planning team to make adjustments to the plan to address particular concerns as the process proceeded. Secondly, by keeping the TAC members informed through regular meetings throughout the planning process, they in turn kept their constituencies and organizations informed of the issues and decisions made as the process proceeded. This methodology informed and educated the various organizations and agencies thus allowing them to make knowledgeable decisions regarding review and support for the plan.

Another key element in the planning process was community review. As with the TAC, providing the community with sufficient opportunity to express their needs and desires for the park master plan, as well as providing sufficient information to allow them to make informed decisions, was a key strategy in developing an appropriate master plan. Community input was actively solicited in several workshop meetings and public agency review meetings. See Volume 2 for a detailed diagram of the planning process, and a summary of the public workshop input.

Site Analysis

The planning process consisted of four major phases. The first was the Site Analysis Phase. During this phase, existing information was gathered and analyzed. Several site visits were conducted and additional information on views, circulation, topography, plant and animal life, existing recreation facilities, and land use was gathered. In addition, existing site conditions were photographed from the air as well as the ground. A regional habitat and significant biological features map was also prepared so the relationship of the immediate study area could be viewed in comparison to the region.

A composite base map of the study area was created and the site analysis information was graphically displayed in a series of diagrams (see Volume 2). These diagrams and accompanying text were presented to the TAC for their review. After the TAC

review, the planning team made appropriate corrections and additions to the maps in preparation for the first public workshop.

Concept Design

Concept Design was the second phase of the planning process. This phase was started off by a presentation to the public of the information gathered during the site analysis phase. The purpose of this workshop was twofold. First, the site analysis information was presented to offer the community an opportunity to add any unique or specific information they had about the site to the body of information gathered to date. Secondly, the design team used the workshop as an opportunity to elicit desired program elements from the community (i.e. trails, ballfields, interpretive programs, habitat restoration, etc.). This workshop was presented twice.

Upon completion of the first public workshop, the design team summarized the community input and reviewed it with the TAC.

The major concern from the community revolved around the following issues (see Volume 2 for a detailed description of community input):

- 1. Laguna habitat preservation and restoration was a recurring theme in the workshops. Suggestions included development of interpretative paths; creation of an interpretive and environmental education center; acquisition, rezoning, and restoration of adjacent industrial parcels; and creation of guidelines for future adjacent development, emphasizing protection of viewsheds and habitat.
- 2. Location, type, and quantity of existing and future baseball fields on the Laguna Youth Park site was a major issue in the public workshops. There was a wide span of opinion on this issue ranging from elimination of the existing ballfields to adding an additional senior league field.
- 3. Need for incorporation of the Laguna into the community with sensitive design.

- 4. Mitigation of the unauthorized fill in one of the sewer pond on the Laguna Youth Park site.
- 5. Funding for development and maintenance of the park.
- 6. The affect of land management polices of adjacent land owners on the Laguna, particularly in regard to water quality and habitat preservation.

After the TAC review, the planning team developed two sets of concept plans. The concept plans consisted of an overall bubble diagram of potential park development and circulation, a concept detail area plan of the existing Laguna Youth Park area depicting possible facility configuration and development, five typical concept cross-sections illustrating in detail the relationship between the proposed elements and existing conditions in the study area, and descriptive text describing the concepts, goals, and specific elements of the plan.

The purpose of developing two sets of concept plans was to explore the range of options. The plans were not developed as an either/or scenario, but rather as a graphic illustration of possibilities from which elements of each plan could be taken to develop the final plan. In addition, a concept level cost estimate for each scheme was prepared.

These two sets of concept plans were reviewed by the TAC prior to presentation to the public. After the TAC review, the design team made the appropriate changes and additions, and then presented the plans to the public in a second workshop.

This workshop consisted of a brief slide presentation of the concept plans. After which, the remainder of the workshop was devoted to listening to and recording public comment about the plans and related issues.

Draft Master Plan

Upon completion of the preliminary plan process a draft master plan was developed which represented the best elements of the design concepts developed in preliminary design phase. City Review and Approval

The draft master plan was formally reviewed by the Parks and Recreation Commission and the Planning Commission. At each of these meetings additional public input was received and each commission forwarded their recommendation to the City Council. The City Council then held a study session to review the recommendations from the Parks and Recreation and Planning Commissions. On January 5, 1993 The City Council voted to adopt the master plan.

CEOA

To fulfill the requirements of the California Environmental Quality Act (CEQA) an initial study was prepared by City staff during the City review process. The initial study determined that the project had no significant environmental impact. Based on the findings of the initial study a negative declaration was prepared by City staff and adopted by the City Council on January 5, 1993

THE SITE

This planning effort focuses on the Laguna and its environs within the City of Sebastopol's boundary and sphere of influence.

This plan concentrates on property owned by the City and potential opportunity acquisitions along the Laguna. In addition, this plan explores the possibility of some recreational trail and scenic easements on land owned by other public agencies and private individuals. With regard to opportunity acquisitions and potential easements, the intent of this plan is to create a vehicle for constructive dialog between the City and adjacent land owners. Dialog which will lead to arrangements mutually beneficial to the City, adjacent landowners, and the community in general.

While the plan focuses on publicly owned lands, the boundary of the planning area encompasses approximately 325 acres (see Publicly Owned Land Within the Planning Area figure 3). The northeastern boundary of the planning area is the parcel of land owned by the City known as the Barlow Field. It is a 58.6 acre parcel currently leased for apple waste disposal. This parcel continues south to Highway 12 and makes up the eastern edge of the study area north of Highway 12.

On the west side of the Laguna, a 12.9 acre parcel provides the northwestern edge of the study area. This parcel was a former City waste treatment facility. Some of the former evaporation ponds have reverted to wetlands. This parcel, along with a 2.8 and 6.3 acre parcel directly south, are also owned by the City. On these three parcels the City operates a community center and city park known as the Laguna Youth Park. It also leases a building to a local square dance association.

In this area, the City also owns a 6 acre parcel that abuts the southern edge of the Laguna Youth Park, the western edge of the Laguna and the eastern edge of light industrial parcels along Morris Street.

Between the City-owned parcels north of Highway 12, approximately 5.6 acres of the Laguna is owned by the Sonoma County Water Agency.

The western boundary of the study area north of Highway 12 is Morris Street.

South of Highway 12, the eastern limits of the planning area range from 600 to 900 feet on the east side of the Laguna. This portion of the planning area is owned by the City of Santa Rosa and the California Department of Fish and Game.

On the west side of the Laguna, south of Highway 12, the study area extends to Highway 116.

The southern portion of the planning area extends approximately 2900 feet south of Highway 12.

This southwestern portion of the planning area is primarily private property. The City is currently negotiating the purchase of approximately 10 acres of wetland habitat from the Southern Pacific Railroad Company at the mouth of Calder Creek east of Abbott Avenue. This parcel is known as the Railroad Forest.

A recreation trail along the old southern Pacific Railroad alignment goes east-west through this portion of the planning area.

GOALS OF THE PLANNING PROCESS

The following goals represent an effort to balance the economic and recreation needs of the community with ecological and aesthetic elements that are essential, not only to the environment, but to the unique visual character which is cherished by most of the local community. Many of these goals were stated by groups, individuals, and agencies before the planning process began; some of them evolved during the planning process, and most of them have been refined through many public workshops, TAC meetings, and commission and council meetings which were an integral part of this process.

1. Provide guidance for preservation and enhancement of the unique natural resources of the Laguna and surrounding environs, consistent with the City Council's policy numbers 57 and 58. The following are specific objectives of this goal:

Maintain and enhance native bio-diversity.

Protect plant and animal species of concern.

Allow for recovery of extirpated species in the Laguna ecosystem, such as the California freshwater shrimp and California yellow-billed cuckoo.

Preserve habitats of concern.

Restore native plant communities and wildlife habitats.

Enhance the native fishery.

Enhance the beauty of the Laguna and provide a natural landscape setting for the City.

2. Assist the community in establishing specific park development objectives compatible with the community's recreation desires, protection and enhancement of the Laguna, and regulatory agency requirements. The following are specific objects of this goal:

Through a series of public workshops, and a search of existing literature, identify in broad terms the Community's recreation needs. Identify additional steps the City can take to further define the recreation needs of the Community.

List the major public recreation facilities within the City limits and identity any that are under utilized.

Identify the planning areas' carrying capacity for additional active recreation facilities within the limits of goal number one. As part of this objective, determine the feasibility and types of additional active recreational activities within Laguna Youth Park.

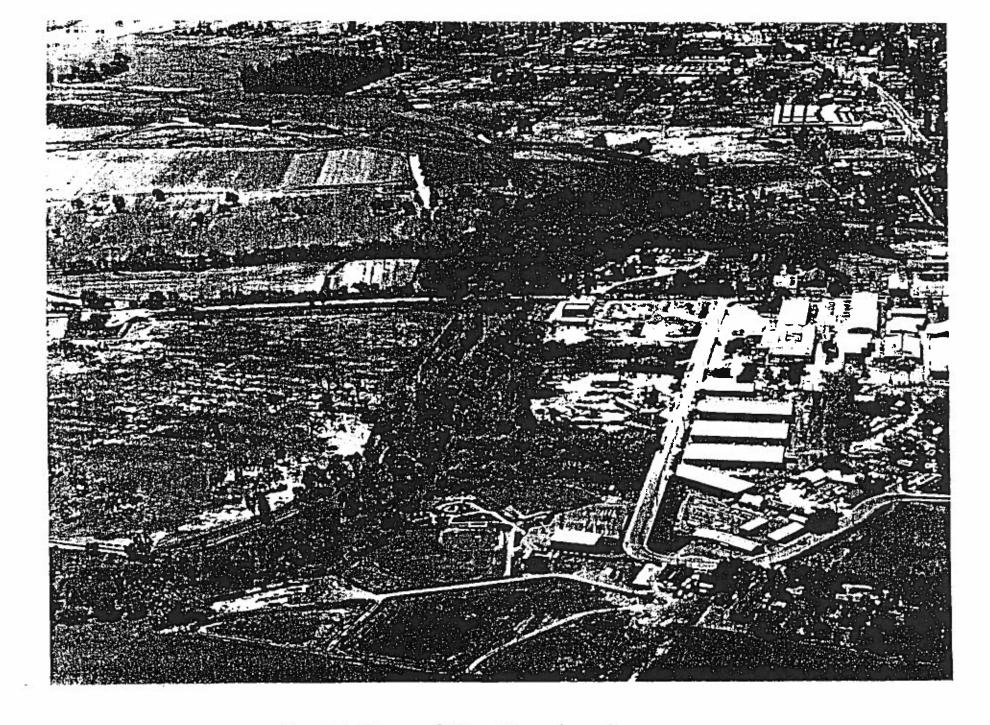
- Define construction and maintenance costs for the proposed improvements in a fashion that will guide the City in making important decisions regarding allocation of their fiscal and personnel resources.
- 4. Identify potential sources of funding for the proposed park improvements and associated recreation programs.
- 5. Coordinate the park master plan with the wetland enhancement efforts of the City of Santa Rosa, the State of California, and the Federal government in the Laguna. Specific objectives of this goal are as follows:

Incorporate the City of Santa Rosa's long term waste water enhancement plan as it relates to the planning area.

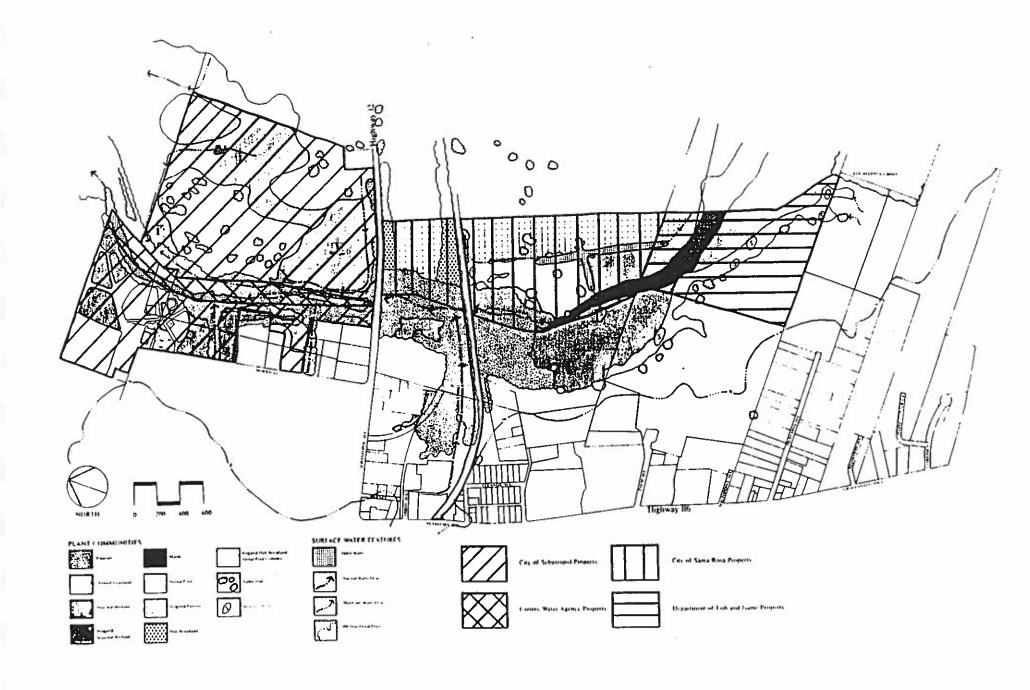
Interface with the California Department of Fish and Game habitat enhancement policies.

Identify opportunities for Federal Government funding for restoration and acquisition.

6. Assist the City in resolving the issue of unregulated fill in pond #5 to the satisfaction of the regulatory agencies.



Aerial View of the Planning Area Figure 2



Publicly Owned Lands Within the Planning Area Figure 3

MASTER PLAN

The main focus of the Laguna De Santa Rosa Park is Laguna environs preservation and restoration, along with enhanced and more well-defined public access via paths, overlooks and two bridge crossings.

The park will serve an educational function in order to acquaint the public with the diversity of wildlife and plant life in the unique ecosystem. The plan's objective is to allow visitors to enjoy the natural setting, flora, and fauna, with the least amount of disturbance to the natural habitat of the Laguna de Santa Rosa and Calder Creek.

The plan also recognizes and incorporates the established active recreation Laguna Youth Park facilities. Furthermore, the plan has analyzed the feasibility of additional active recreational activities and has included them where possible. The development of sufficient transition and buffer areas between the passive and active elements is a major goal of the plan.

The existing condition of lands within the proposed park varies widely from native, undisturbed areas to extensively modified areas. Within the context of designing a primarily passive park, areas have been identified which should be preserved in their existing, natural condition and restored to a natural condition. In addition, the plan identifies areas which are existing active recreation and which recreational uses are most appropriate in and near those areas, as well as on those modified lands which feasibly cannot be restored to a natural condition.

In addition to the extensive analysis of technical information, the TAC and the planning team held several meetings to discuss proposed elements in the park program, desired land uses, and management policies. The TAC was in total agreement on 90% of the elements of the plan. The exception was the area encompassing the Laguna Youth Park and sewage ponds. The disagreement centered around the legitimate and competing

demands between proposed active and passive uses of this limited land area.

In order to resolve this issue the planning team prepared two additional detailed area schemes to further analyze possible combinations of passive and active uses within the site constraints of the Laguna Youth Park and sewage ponds area (see Volume 2 Opportunities and Constraints for detailed discussion and analysis).

Upon completion of this analysis the planning team formulated a recommendation for development of this area which is included in the recreation and public access portion of this master plan.

The following master plan is divided into two major elements. The first element entitled Ecological Preservation and Enhancement, focuses on the enhancement and preservation of the planning area's natural resources. The second element entitled Recreation and Public Access deals with public access, and passive and recreation within the context of ecological preservation and enhancement. This section also addresses preservation of visual resources.

As stated earlier, there are several types of land ownership within the planning area. Some land is owned by the City, some is owned by other public agencies, and some is privately owned. In order to address the preservation and recreation issues important to the development of the Laguna park given such a mix of ownership, this plan focuses at two different levels to convey the design concepts of the park master plan. For broad brush concepts involving lands owned by several agencies and individuals, the goals, objectives, and policies are general in nature. This in conjunction with the Park Master Plan shown in figure 6, allows the plan to address important issues, recommend policy guidelines, and identify certain opportunity acquisitions without being site specific. For lands owned by the City and

currently available for enhancement and recreation the goals, objectives and policies are more specific.

ECOLOGICAL PRESERVATION & ENHANCEMENT

At one time, prior to white settlement in Sonoma County, the Laguna area and the Santa Rosa Plains, teemed with deer, antelope, elk, and flocks of waterfowl which darkened the skies for hours on end (Waaland, 1990). Steelhead and salmon swarmed in the local perennial tributaries. Grizzly bear, and Native Americans, feasted on the abundance. Over the years since settlement by peoples of European descent, changes to exploitative land uses have drastically reduced the numbers of waterfowl, salmonids, and wildlife in general. However, some relatively pristine relics of the original ecosystem are still present, like the Railroad Forest in the study area near Highway 12. Other lands in the study area which have been altered for human use could be restored to a semblance of their original natural communities. The intent of the ecological enhancement section is to form a basis for preservation and restoration of lands within the study area so that native biodiversity can be maintained, and increased where possible. These enhancements are addressed in the following three areas, Preservation, Restoration, and Operations and Management.

Design Concept and Development Goals

The design concept for ecological enhancement in the study area are based on the preservation and restoration of the Laguna's ecological resources. The goals of the ecological enhancement plan are based in part on the previous work in the Laguna which has led up to the present study.

Background.

The earliest Laguna study effort called for preservation and enhancement of riparian habitat and biotic resources (de Mars et al, 1977). The 1978 Laguna Study Committee appointed by the County Board of Supervisors recommended ordinances and

easements to protect wetlands, wildlife and oaks in the Laguna. In 1986, the City appointed a "Laguna Advisory Committee (LAC)" (Council Policy No. 55) which recommended a Laguna Land Use Management Plan, adoption of a riparian ordinance, annexation and protection of Laguna lands, preservation, enhancement and restoration of vegetation and wildlife habitats in a "Laguna Riparian Corridor" and lands within the City's sphere of influence (LAC, 1988). Many of these provisions were formally recognized in the City's Wetlands Ordinance and City Council Policy No. 58.

The LAC evolved into the non-profit Laguna Foundation which adopted "Laguna de Santa Rosa Preservation and Restoration Objectives" and specific implementation measures, the "Laguna de Santa Rosa Management and Restoration Guidelines (Waaland, 1989 b)." These measures were sent to all agencies with jurisdiction over Laguna resources. All agencies generally endorsed the measures agreeing that modifying land management practices to enhance ecological resources could be accomplished. Lastly, a comprehensive study: "History, Land Uses and Natural Resources of the Laguna de Santa Rosa (Smith, 1990)" was prepared by the Subregional System to provide a detailed, baseline assessment of Laguna resources and means for short term and long term protection. Much of the "Preservation and Restoration" section (Waaland et al, 1990) from this study was applied to the Ecological Enhancement Plan component for this Master Plan.

Ecological Enhancement Themes

The following section incorporates the information from past works and adds site specific research conducted for this plan. The themes for this plan are: to maintain and enhance native biodiversity; to protect plant and animal species of concern; to allow for recovery of extirpated species in the Laguna ecosystem; to preserve habitats of concern (vernal pools, riparian and oak woodlands and wetlands); to restore native plant communities and wildlife habitats; and to enhance the native fishery.

GOAL A: Preservation of Laguna Habitats

The following management recommendations are designed to protect sensitive ecological resources from degradation or

disturbances and comply with the Laguna protection measures in Council Policy No. 58. Similar measures are frequently employed where urban uses interface with preservation of ecological resources (Zentner, 1988; Jones and Stokes, 1989).

Preservation of Sensitive Habitats

Objective A.1:

Protect and enhance existing sensitive habitats in the Laguna.

Policy A.1.1:

From willing sellers only, seek purchase or easement on private lands where existing wetland habitats identified as "riparian forest," "seasonal wetland," and "vernal pool" are present.

Policy A.1.2:

The City shall adopt an ordinance that would prohibit any filling of natural lands south of Highway 12. "Natural Lands" are those that are classifird as riparian woodland, seasonal wetlands, annual grassland (below 76 foot elevation), marsh, vernal pool, pasture and oak woodland. This measure will conform with City Council Policy #58 to avoid adverse ecological impacts to buffer areas and sensitive habitats in the Laguna.

Buffer Areas

Buffer areas minimize the potential exposure to harm (Josselyn and Buchholz, 1984; Hynson et al, 1985; OTA, 1987) and can expand or protect important habitats adjacent to wetlands. Buffers are envisioned to be applied in two different ways, as explained below.

Objective A.2:

Provide buffer areas to conform with City Policy No. 58 and to avoid or minimize potential adverse ecological effects of proposed developments, existing uses adjacent to the Laguna and proposed master plan elements.

Policy A.2.1:

Zone 1. Buffers for Redevelopment of Existing Urban Land Adjacent to Laguna Habitats.

Zone 1 is defined as the area north of the Joe Rodota Trail (see Figures 6A & 6B). Where redevelopment or new development is proposed in this area, a minimum buffer of 50 feet should be adopted, or local wetland zoning regulations followed, whichever provides the greater buffer width. The 50 foot minimum buffer setback begins at the edge of the riparian dripline, or other wetland habitat. The dripline begins at the edge of the tree canopy. A 20 foot wide trail and landscaped area can be installed along the urban fringe within this zone. This measure conforms with Council Policy No. 58.C.1.b(2).

Zone 2: Buffers for New Development in Existing Laguna Habitat.

Zone 2 is defined as that portion of the study area south of the Joe Rodota Trail (see Figures 6A & 6B). Where new development is proposed in existing natural areas within this zone, the following buffer setbacks would be applied: a protected buffer of at least 200 feet from the edge of a wetland, endangered species population or DFG preserve. The buffer setback will be a minimum of 50 feet from the 100 year flood contour Within this buffer, no new development would be allowed, except as allowed under Policy G.2.1. This measure conforms with Council Policy No. 58.C.1.b(2) and is largely met by avoiding fill within the 100 year flood elevation in the Laguna.

Policy A.2.2:

The buffer areas described in Objective A.2 are intended to be the minimum required. Development proposals for land within or adjacent to natural lands are to develop a resource analysis of the property to determine the boundary of wetlands, upland habitat, the presence and location of endangered plant and animal species, and any other information relevant to the preservation of biotic resources and sensitive habitats or natural lands.

The resource analysis shall identify and locate, at a minimum, the following:

- a) the type and location of endangered plant and animal species;
- b) riparian vegetation on and within 50 feet of subject property;
- c) the location of wetlands, if applicable
- d) potential archaeological resources if applicable; and,
- e) flood hazard areas.

The resource analysis shall contain, at a minimum, the following types of analyses and mitigation:

- a) Determine the actual buffer required to protect and enhance the biotic resources and wetlands. (This involves identifying land that is functionially a part of the wetlands ecosystem and which should be preserved in a natural state.)
- b) Recommend measures to mitigate the impact of proposed development on biotic resources and natural land areas.

The resource analysis will take place prior to allowing any development proposals or conceptual development plans to be accepted as complete by the City.

Qualified biologists and other professionals will be selected by the City to conduct the resource analysis paid for by the developer.

The buffer areas called for under Objective A.2 (Page 10 &11) and Objective F.2 (Page 20 &21) shall be mapped to the extent possible with existing information to show the various buffer boundaries including the potential upland visual impact areas.

Objective A.3:

Provide Buffers for Farm Management Activity. Develop measures to protect riparian habitats along the Laguna channel, and other sensitive habitats. (Specific buffers and fencing setbacks for the City owned Barlow Field are specified in the Operations and Management Section.)

Policy A.3.1:

A City sponsored educational program shall be established to seek voluntary compliance with best management practices that will promote and enhance riparian habitats and endangered species on privately owned land.

Where possible, easements will be sought from willing sellers only to fence a minimum distance of 50 feet from the Laguna's edge to protect the channel from impacts associated with grazing animals. This measure conforms with Council Policy No. 58.C.2.

Design Standards for Construction of New Roads and Buildings Adjacent to Laguna Habitats

Residential and commercial developments in which backyards face a creek or other open space have a number of negative qualities:

- o Attract litter, vandals and motorcycles
- o Waste valuable open space
- o Can be hazardous to youngsters exploring waterways

o Boring, outmoded single purpose land use.

Parallel streets, which provide access to residential and commercial buildings, but are constructed between these uses and the Laguna open space will:

- o Provide more homeowner privacy and security
- o Generally equal or better the development's lot yield
- o Provide more useable open space
- Often make homes more valuable
- o Enhance ecological values for wetland and neighborhood environments.

Objective A.4:

Minimize the negative environmental effects associated with backyards adjacent to the Laguna habitats.

Policy A.4.1 Parallel Roads.

New development in Zone 2 (south of the Rodota Trail) shall provide access with "<u>Parallel Roads</u>" which are peripheral to Laguna habitats and serve to separate the fronts of residences from the open space.

New developments shall have the fronts of buildings facing toward the Laguna open space, with the parallel access road in between.

GOAL B: Restoration and Enhancement Plan for Laguna Habitats

Detailed literature and field research was conducted to develop the restoration plan. Description of the natural resource components of this study are reported in Volume II of the Laguna Park Master Plan. The overall restoration scheme is shown in Figure 6. Implementation of a revegetation program is described in detail in the Operations and Management Section of the Master Plan, Volume 1.

Restoration and Enhancement of Laguna Wetlands

Laguna wetlands (riparian woodland, marsh, seasonal wetlands and vernal pools) provide free "ecosystem services" which have a number of important benefits for humans and wildlife:

- o Waterfowl Breeding (mallards, wood duck)
- o Habitat for Waterfowl and Other Birds (willow flycatcher)
- o Wildlife Habitat (deer, river otter, western pond turtle)
- o Habitat for Endangered Species (Sebastopol meadowfoam, yellow billed cuckoo)
- o Anadromous Marine Fish Production (steelhead)
- o Freshwater Fish Production (trout, native fish)
- o Flood Control (75,00 acre-feet of flood retention during a 100 year storm)
- o Water Quality (natural water filter and purification)
- o Shoreline Stabilization (wetland vegetation prevents erosion)
- o Recreational Opportunities (hiking, photography, fishing, and hunting)
- o Education (outdoor biology classrooms)

Within the Laguna ecosystem, wetlands have undergone drastic losses: 94% of the vernal pool habitat has been lost, 92% of the riparian woodland has been lost, and 57% of seasonal and perennial freshwater marsh has been lost (Waaland, 1990). The Department of Fish and Game has an official policy to double wetland acreage in the State. Council Policy No. 58 endorses an increase in wetlands and calls for programs for their revegetation and enhancement. This restoration component of the master plan provides a mechanism to begin implementation of wetland restoration provisions in Council Policy No. 58. See Figure 9 for typical restoration section.

Objective B.1:

Restore and enhance Laguna wetlands.

Policy B.1.1: Riparian Woodland.

Revegetate and enhance those areas identified as "Restored Riparian Habitat" in Figure 6. The greatest amount of change in habitat will be conversion of seasonal wetland to riparian woodland. A substantial acreage of grassland also will be converted to riparian woodland. For those areas not owned by the City of Sebastopol, seek voluntary cooperation of public landowners. For private property owners, seek the purchase of easements or lands from willing sellers only. In the absence of purchase or easement, seek voluntary landowner cooperation for publicly financed fencing of a minimum 50 foot buffer zone along the Laguna channel to eliminate grazing impacts and allow for the reestablishment of riparian trees.

Policy B.1.2 Freshwater Marsh.

Restore freshwater marsh by renovating the City owned "sewer farm ponds" (see Figure 5). Also, seek creation of marsh at the Subregional System's Brown Farm retention basin, in the area shown as "Restored Marsh" and "New Open Water Configuration" in Figure 6.

Policy B.1.3 Vernal Pools and Endangered Species.

In the absence of purchase or easement, seek voluntary landowner cooperation for elimination of irrigation on those areas identified as "vernal pool" or "sensitive area" in Figure 6.

Restoration and Enhancement of Oak Woodlands

The majestic valley oaks are the aesthetic signature of the Laguna ecosystem. Ecologically, a valley oak provides nesting, roosting and feeding habitat for numerous bird species and its acorns provide an important food source for many species including deer, squirrels and the acorn woodpecker. Oaks have undergone a state-wide and local decline because regeneration has virtually stopped as a result of livestock grazing and mowing. On privately owned agricultural lands in the Laguna area, irrigation continues to

weaken mature trees with root rot, accelerating mortality. Unirrigated oak woodland has undergone a 94% decrease in acreage in the Laguna ecosystem (Waaland, 1990). Council Policy No. 58 endorses the protection and replanting of oaks. The restoration component of this master plan provides a mechanism to begin implementation of oak woodland restoration provisions in Council Policy No. 58. See Figure 9 for typical restoration section.

Objective B.2:

Restore and enhance oak woodland in the Laguna.

Policy B.2.1:

Protect all oaks on City owned land from grazing and irrigation impacts. See the Operations and Management Section for specific measures regarding the Barlow Field.

Plant oak trees in areas designated as "Restored Oak Woodland" and "Restored Riparian/Oak Woodland" in Figure 6.

GOAL C: Recovery of Declining, Rare or Endangered Species

One of the benefits anticipated in the restoration of woodlands and wetlands in the study area would be the possibility of developing programs with wildlife agencies and resource groups for the re-introduction or re-stocking of declining, rare or endangered species native to the Laguna ecosystem. Preservation and restoration in the study area would provide a reasonable expectation of returning the endangered California yellow-billed cuckoo to the Laguna. Other rare or endangered species associated with riparian habitat that would benefit from this enhancement are: yellow warbler, wood duck, osprey, bald eagle, willow flycatcher, yellow-breasted chat, redlegged frog, western pond turtle, ringtailed cat and the California freshwater shrimp.

Objective C.1:

Enhance the Native Salmonid Fishery

Policy C.1.1:

Begin a program with California Department of Fish and Game (CDFG), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS) and Trout Unlimited (TU) to improve fishery habitat by revegetating the banks of the Laguna to cast shade added by trees and place instream cover (boulders, logs). Upstream spawning habitats should be identified.

Objective C.2:

Reintroduce Extirpated or Endangered Species and Expand Existing Populations of Those Present In the Study Area.

Policy C.2.1: Reintroduce the California Freshwater Shrimp (Syncaris pacifica).

This aquatic invertebrate is a State and Federally listed endangered species. Begin a program with CDFG, USFWS, NMFS and TU to for restoration of tributaries and Laguna channel banks which would provide the kind of below water root structure required by the shrimp.

Policy C.2.2: Reintroduce the California Yellow-billed Cuckoo (Coccyzus americanus occidentalis).

This is a State listed endangered species. A critical habitat element required is relatively broad expanses (20 acre minimum) of willow and/or cottonwood riparian woodland. Begin a program with CDFG and the Audubon Society for restoration of woodland in the study area which would allow for reintroduction. Promote similar efforts in other areas of the Laguna.

Policy C.2.3: Reintroduce the White Sedge (Carex albida)

Begin a program with CDFG and the California Native Plant Society (CNPS) to reintroduce the white sedge (<u>Carex albida</u>). This state listed endangered species once occurred in the Laguna marshes. It could be reintroduced into existing or restored habitat.

Policy C.2.4: Reintroduce Other Rare or Uncommon Plants

Begin a program with CDFG and CNPS to experimentally establish populations of two rare plants, California beaked rush (Rhynchospora californica) and round-headed beaked rush (R. globularis).

Policy C.2.5 Expand Populations of Endangered Plants.

Begin a program with USFWS, CDFG and CNPS to distribute seed into available habitat for Sebastopol meadowfoam, Sonoma sunshine and Burke's goldfield. Successful efforts can increase populations of these endangered plants in the study area.

Policy C.2.6 Expand Populations Rare or Uncommon Animals.

Yellow warbler (<u>Dendroica petechia brewsteri</u>), and yellowbreasted chat (<u>Icteria virens</u>) are bird species of special concern which will benefit from the restoration of riparian habitat in the rural reaches. Begin a program with CDFG and the Audubon Society to expand populations of these birds. Also, install wood duck nest boxes to reestablish this bird in the local woodlands.

OPERATIONS AND MANAGEMENT

Revegetation Scheme to Implement the Restoration Plan

The revegetation scheme for the study area is based on planting appropriate plant materials in the habitats offered by the man-made and natural environments in the study area. Revegetation will occur in "Ecological Planting Zones (Table 1)," which are areas in the Laguna where the soil and hydrology support a particular assemblage of plant species tolerant of the environmental conditions. The resultant increase of local native riparian forest will improve the wildlife habitat value, and maximize biodiversity, especially for birds, small mammals and the insect prey base.

Soil/Plant Relationships.

Plant communities in the Laguna are correlated with soils types. Some of the recognized relationships and their associated trees should provide the basis for revegetation in the study area (Appleton, 1989):

Soil Series	<u>Habitat</u>	Characteristic Plants
Blucher/Cortina	Riparian	Oregon ash, willow, valley oak
Clear Lake	Riparian	willow, Oregon ash, valley oak
Wright	Oak woodland	valley oak, black oak, live oak

The characteristic plants are listed in decreasing order of abundance.

Ecological Planting Zones.

Table 1 lists the planting zones and typical species for the restored Laguna. In general, uplands are Wright soils, transitional and floodplain margins are either Clear Lake or Blucher soils. Uplands, such as the banks of the abandoned sewer farm ponds, urban areas built on fill, or the higher ground on the east and west sides of the study area, exhibit vertical zonation of soil types and/or soil moisture regimes. Soils in the floodplain bottom (i.e. the two year floodplain) will be moist, or hydric. Soils from the lower slopes of the west side of the study area and the plains to the east have an intermediate, or mesic soil moisture regime. Finally at the top of bank or the highest areas west of the study area, soils can be xeric, or dry. These soil conditions affect plant growth so

only native plant species tolerant of the different moisture regimes will be installed.

Planting	Plant	Moisture	Typical	Objective D.1.:
Zone Uplands	Community Oak Woodland	Regime Xeric (dry)	Plants Live Oak, Madrone, Bay, Manzanita, Ceanothus, native grasses and wildflower	Ensure that preservation and restoration efforts are implemented and effective, as outlined in City Policy No. 58.C.a-b. Policy D.1.1
Transitional	Oak Woodland / Riparian Woodland	Mesic-Hydric (intermediate)	Valley Oak, Black Oak, Buckeye, Maple, Cal. Grape, Elderberry, Cal. Rose, Cal Blackberry, Snowberry native grasses and wildflowers	The revegetation contractor will monitor plant development and survival in the spring and fall for three years after planting. Annual reports will be written, with a final report in the third year. Remedial planting will occur annually to bring any shortcomings into compliance with the revegetation success criteria. Objective D.2:
Floodplain Margin	Riparian Woodland	Hydric (scasonally wet)	Cottonwood, Willow, Ash, Boxelder, Cal. Grape, Elderberry, Cal. Rose, Cal. Blackberry, Snowberry, native herbs	Further the understanding of the Laguna ecology and promote continued restoration efforts as stated in City Policy No. 58.C.b: Programs/Ordinances. Promote cooperative studies with local and regional colleges and universities. An organization independent of the city could oversee the program.
Annual Floodplain	Freshwater Marsh	Hydric (perennially wet)	Cottonwood, Willow, Ash, Boxelder, Elderberry, Cal. Rose, Cal. Blackberry, Snowberry, sapling Willows; native wetland grasses, sedges tules, rushes, cattails and burred	Policy D.2.1: Fisheries A steelhead, trout and possibly salmon restocking program shall be developed in cooperation with the Laguna Foundation, California Department of Fish and Game (CDFG), U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), the Subregional System and Trout Unlimited (TU). An organization independent of the city could oversee the program.
		-	nes and typical plants for depending on the different	Policy D.2.2: Endangered Species

A program to restore endangered species shall be developed in cooperation with the Laguna Foundation, CNPS, Audubon, TU, CDFG and USFWS (agencies which have permit authority over collection and translocation). An organization independent of the city could oversee the program.

GOAL E: Barlow Field Interim Management

Recent apple waste effluent disposal at Barlow field, and resultant mosquito abatement activity involving dredging and wetland impacts, have resulted in a need to reform management practices which degrade the ecological integrity of the site. Pertaining to the oak trees at Barlow field, City Council Policy Number 58, Section C.1.c. (1988) states that irrigation in the Laguna area should be allowed "while protecting oak trees from negative effects of such irrigation, including the City's spray irrigation field east of the Laguna." The intent of this policy has not been met at Barlow field. During a field visit to the site it was apparent that some trees were not being irrigated, but that many were. For instance, in a stand of seven oak trees subject to ponding of effluent, three have died (i.e. are stumps or snags), one is near dead, two showed poor vigor and one showed moderate vigor. Continuation of present management practices would likely result in elimination of the entire stand. Numerous tree stumps also occur throughout the site.

In regards to the dredged spoil piles and resultant riparian wetland impacts, City Council Policy Number 58 C.1.a(4) states "The City encourages the maintenance of existing riparian woodlands, including replanting of disturbed areas and/or allowing for natural succession, and replanting of valley oaks, protecting them from grazing." Allowing the spoil piles to remain would have caused serious injury to existing trees. The reference to grazing in the policy is also relevant to the utilization of Barlow field because it is used as cattle pasture by the lessee operator, and there is no sign that oak trees are regenerating. At present, the lessee operator avoids irrigating a buffer strip along the Laguna varying from 100 -300 feet in width (see Figure 6), a practice providing some riparian protection from the effects of effluent. However, except

for an recently fenced area adjacent to the Laguna banks, this site is subject to grazing by cattle.

A series of meetings with Barlow Company and the lessee operator addressed two issues: long-term management of the site, and immediate remedial measures to address the dredging spoil disposal impacts. Agreement was reached on a conceptual long-term approach that included 1) design of flow-through wetlands to provide initial treatment of apple waste, 2) seek use of the Subregional System's tertiary effluent to co-mingle with the apple waste and dilute its BOD load, 3) provide habitat enhancement/restoration that will meet mosquito abatement needs while benefiting wildlife and 4) look into the possibility of an alternative treatment system by having a wastewater engineer analyze the apple waste disposal needs. Tree planting, non-irrigation zones and marsh design were also discussed.

The Barlow site has been identified in Subregional System Technical Memo # W8 as a potential area for marsh creation (Waaland, 1990). It may be possible that Subregional System funds could be available for implementation of some of the restoration at this site. A comprehensive analysis of apple waste effluent issues will be addressed in a separate study (Mel Davis, personal communication).

Interim Remedial Measures

Objective E.1:

Develop measures to rectify the impacts that had resulted from the mosquito abatement activities and bring management into conformance with City Policy No. 58.

Policy E.1.1: Dredge Spoil Mitigation.

Move dredge spoil piles onto appropriate areas on site and rehabilitate injured trees (accomplished).

Policy E.1.2: Irrigation of Oaks Trees.

Install ditches to drain the stand of injured oaks to avoid further mortality (accomplished)

Discontinue irrigation within the dripline of all trees on the site.

Policy E.1.3: Fenced Buffer Strip.

Maintain the 100-300 foot variable strip of land near the Laguna in an un-irrigated condition.

Extend fencing as shown in Figure 6 to prevent grazing impacts. This measure will allow for regeneration of oak trees and provide increased buffering from potential irrigation impacts.

Policy E.1.4: Habitat Elements.

Dead or downed trees (i.e. snags, logs) will no longer be removed from the site so that associated wildlife values will be preserved.

Additional Interim Measures

Objective E.2:

Additional measures are needed to Bring Barlow Field Management Into Conformance with City Ordinance No. 58 and the Laguna Park Master Plan.

Policy E.2.1: Mosquito Abatement Practices.

The following measures are recommended to bring mosquito abatement activities in the Master Plan area into conformance with City Policy No.58 in general and specifically, policy 58.C.c. Administrative Procedures.

Require the Marin-Sonoma Mosquito Abatement District (M/SMAD) to obtain a Section 404 permit from the U.S. Army Corps of Engineers before any more projects involving fill of wetlands proceeds on lands within the Master Plan study area. The fill permit shall be comprehensive, including all lands within the Master Plan study area.

Work with the Marin-Sonoma Mosquito Abatement District to develop long-term best management practices compatible with existing City Policies and components of the Master Plan.

Require M/SMAD to conduct a biological review of all filling and dredging plans for the study area. A field survey to determine whether impacts to species of concern, sensitive habitats or protected trees should also be conducted by M/SMAD. All biological reports shall be reviewed by the City, CDFG and concerned groups (i.e. CNPS, Audubon, Laguna Foundation, etc.)

Policy E.2.2: Additional Fencing for Buffer Strip.

A funding mechanism to purchase and install fencing for the area delineated in the Laguna Park Master Plan (Figure 6) shall be identified and implemented as soon as possible. This measure will meet the intent of City Policy No. 58.C.a-b.

Policy E.2.3: Oak Regeneration Areas.

Driplines of all oak trees should be surrounded with steel stakes posted with "No Irrigation - Oak Regeneration Area" signs. Groves of trees in the interior portions of Barlow field should be identified and fenced to prevent intrusion of cattle. This measure will meet the intent of City Policy No. 58.C.a-b.

Policy E.2.4: Tree Planting Program.

Trees should be planted to replace those lost as a result of mosquito abatement activity and irrigation. An inventory of dead trees should be conducted and replaced at a ratio of 10:1. This measure will meet the intent of City Policy No. 58.C.a-b.

RECREATION, PUBLIC ACCESS and VISUAL RESOURCES

Design Concept

The design concept for the recreation, public access and visual resource aspects of this master plan is to integrate ecological preservation and enhancement of the Laguna de Santa Rosa, with existing recreation facilities and new recreation elements compatible with the Laguna's preservation and enhancement. In addition other active recreation elements are also incorporated in the plan to the extent that they do not eliminate or substantially degrade the passive park aspects of the park development program.

Preservation of the visual resources of the Laguna is another key element of the design concept.

GOAL F: Preserve and Enhance the Visual Character of the Laguna

The visual image of Sebastopol is that of a small town in a rural setting. The visual character of the Laguna de Santa Rosa and surrounding environs make an extremely important contribution to the desired visual image.

Given the visual character of the study area as well as that of the adjacent land uses, there are two important viewsheds that will be most directly affected by planning and development decisions that the City makes inside and outside of the planning area

boundaries. These are viewshed #2 and viewshed #3 as shown in Figure 3 of volume 2 Technical Information.



Vista From Viewshed #2 Figure 4

There are a variety of existing land uses within the planning area (see Volume 2 figure 4). Most of the land directly to the east of the Laguna is owned by public agencies. Currently the majority of this area is used for apple waste disposal and waste water dispersion.

The parcels north of Highway 12 and east of the Laguna are zoned wetlands. The City currently owns a large portion of this area which makes it a prime focus for future park incorporation and development.

The land use west of the Laguna within the city limits ranges from public facilities to industrial, commercial, and residential. North of Highway 12 the City currently owns several parcels which are zoned Community Facility District. For the most part these parcels abut the Laguna and are a prime focus for park development.



Vista From Viewshed #3 Figure 5

South of Highway 12, one large parcel known as the Railroad Forest is designated as a wetland which makes it a prime candidate for acquisition and incorporation into the Laguna park.

South of Highway 12 between the west bank of the Laguna and the city limit there are several large county parcels zoned Diverse Agriculture, Rural Residential, and Land Extensive Agriculture.

In the past there have been proposals to incorporate portions of this area into the City of Sebastopol as a Planned Community District.

The City can influence the quality of these viewsheds in two major ways. First of all the City can control the location and character of structures placed on City owned land. Secondly, the City can analyze through the Design Review process, the visual impact of proposed private development within the viewsheds critical to the visual quality of the Laguna.

Building Development on Publicly Owned Lands

Objective F.1:

Minimize the physical and visual encroachment of development into the Laguna and its environs on publicly owned lands.

Policy F.1.1:

Additional building construction in the area of the Laguna Youth Park and adjacent sewer ponds shall not be allowed beyond a distance of 200 feet from the center line of Morris Street.

Policy F.1.2:

New building construction shall not be allowed on the Barlow Field parcel.

Policy F.1.3:

Discourage other public agencies from developing building structures within 800 feet of the center line of the Laguna Channel.

Laguna Viewsheds

Objective F.2:

Protect important Laguna viewsheds

Policy F.2.1:

Analyze proposed structures within 1250 feet of the center line of the Laguna Channel for their potential affect on the Laguna skyline. Do not allow massive uninterrupted penetrations of the tree line by roofs or other building structures.

Policy F.2.2:

Analyze proposed structures with 1250 feet of the center line of the Laguna for their effect on the views from the Laguna towards the town.

Policy F.2.3:

The City Council shall direct the Design Review Board to develop design standards for development within the view sheds as defined within Objective F.2 (Page 20)

Policy F.2.4:

Encourage the clustering of structures to develop open space that physically and visually relates to the Laguna.

GOAL G: Develop a Comprehensive Recreation and Interpretive Trail System

Objective G.1:

Complete the City of Sebastopol segment of the Sonoma County Recreation Trail.

Policy G.1.1:

For the area from the existing county recreation trail north to Highway 12, obtain through opportunity acquisition or easement, an alignment along the abandoned railroad easement that runs approximately north south as shown in figure 6.

Policy G.1.2:

For the area along Highway 12 running west to the intersection of Morris Street, provide a new recreation trail on the south side of the existing roadway.

Policy G.1.3:

Provide a traffic light at the intersection of High 12 and Morris Street to furnish a safe bicycle and pedestrian crossing.

Policy G.1.4:

For the area along Morris Street develop a Class III bikeway along the entire length of Morris Street to provide a bikeway transition from the existing county recreation in the north part of town to the recreation trail improvements described above.

Policy G.1.5:

Do not allow equestrian use on the City portions of the recreation trail.

Objective G.2:

Provide a new recreation trail that runs in a north-south direction from the existing county recreation trail to the southern boundary of the planning area. It is the intent of this plan that this new recreation trail will provide a connection of future neighborhoods to the existing recreation trail system.

Policy G.2.1:

Through easements and/or opportunity acquisition, acquire a recreation trail easement along the proposed alignment as shown in figure 6. The width of the easement will begin at the 76 foot elevation contour and continue up hill for a distance of 50 feet.

Objective G.3:

Develop a system of interpretive trails that provide access to the Laguna and its environs for the purpose of nature study and hiking.

Policy G.3.1:

Obtain through opportunity acquisition, joint use agreements, and/or easements, alignments for interpretive/nature trails as shown on figure 6.

Policy G.3.2:

Trail development shall be an unpaved hiking path four to five feet wide with minimal disturbance to the natural topography and vegetation.

Policy G.3.3:

Pursue development of two pedestrian bridge crossings at the Laguna as shown on figure 6 to connect interpretive trails on opposite sides of the Laguna.

Policy G.3.4:

Do not allow bicycle and/or equestrian use on the interpretive trails.

Objective G.4:

In conjunction with the interpretive trail system, develop a sub-system of controlled interpretive trails that allow limited access to sensitive habitats. The primary purpose of this trial system is for environmental education.

Policy G.4.1:

Obtain through opportunity acquisition, joint use agreements, and/or easements, alignments for docent led interpretive/nature trails as shown on figure 6.

Policy G.4.2:

In order to avoid damage to the sensitive habitats, groups using the docent led trails will be limited to a number as determined by the City's Park and Recreation Department.

Policy G.4.3:

All trail use must be led by a qualified docent as determined by the City's Park and Recreation Commission.

Policy G.4.4:

Docent led trails will be designed in a fashion to discourage unauthorized use.

Laguna Youth Park and Sewer Pond Site

Because of limited space and other important site constraints the site is unable to handle all of the desired recreation program elements that were identified in the planning process. This conclusion was reached after the development and analysis of several site plan alternative (see Volume 2, Opportunities and Constraints). Of the major program elements identified for the Laguna Youth Park site, the following are included in the master plan:

New Recreation Elements

- 1. Expansion of the existing recreation trail
- 2. Outdoor amphitheater
- 3. Interpretive trails
- 4. Nature area viewing deck
- 5. Habitat enhancement
- 6. Group picnic area
- 7. Renovation and enhancement of existing ponds
- 8. Parking

Existing Recreation Elements

- 1. Community center
- 2. City corporation yard
- 3. Dance Hall
- 4. Little League field
- 5. Senior League field
- 6. Parking
- 7 Playground

New Recreation Elements Approved Prior to the Plan

- 1. Community center expansion
- 2. Teen center

The following elements were not included in the park development for one or more of the following reasons: Lack of sufficient space, incompatibility with passive elements of the park development, or lack of adequate site qualities.

- 1. Nature Interpretive Center: because of the unknown qualities of the fill at potential sites and the planning areas relationship to the 100 year flood plain, a suitable site for an interpretive building is not practical. However, this is an important element in the concept of Laguna education and management and other sites should be actively sought.
- 2. Additional Senior League Ballfield: inclusion of this element would prevent the grouping of an amphitheater, viewing deck, parking area, and interpretive kiosk adjacent to the renovated ponds. In order to create an outdoor environmental education facility, these elements must be sited as a cohesive unit. As stated previously, there are important competing demands between passive and active recreation uses for this available land. The planning team's decision to select the passive elements in lieu of active recreation was based on judgements regarding park program priorities, use relationships, spatial buffers appropriate to park development, and land use values.
- GOAL H: Establish specific park development plan compatible with protection and enhancement of the Laguna, regulatory agency requirements and the community's recreation desires

Objective H.1:

Establish specific park development objectives compatible with the community's recreation desires, protection and enhancement of the Laguna, and regulatory agency requirements. In particular, determine the feasibility and types of additional active recreational activities within Laguna Youth Park.

Policy H.1.1:

Implement the following detailed plan for the Laguna Youth Park and Adjacent Sewer Pond Site.

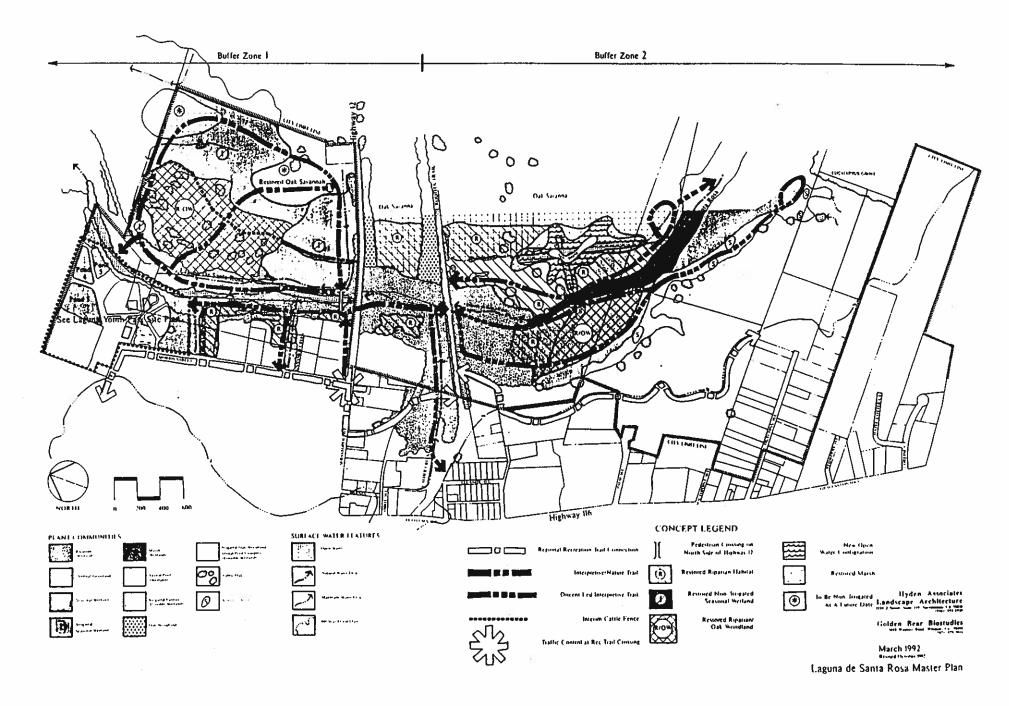
The following description of the park master plan elements proposed for the Laguna Youth Park and adjacent area are keyed to Figure 7 Laguna Youth Park Site Plan.

- 1. New Open Water Configuration: A new open water configuration for the wetland area to the south of the existing park is proposed. This open water will provide an excellent visual connection for the park to the Laguna as well as providing additional open water habitat.
- 2. Renovated Wetland Habitat: Renovation of the existing wetland habitat is proposed for the areas adjacent to the new open water configuration as well as the renovated pond area.
- deck and interpretive kiosk will be placed adjacent to the new open water configuration and just west of the existing Little League field. This location was selected because of its high visibility. Panels at the kiosk will inform park users of the other passive and interpretive facilities in the park. Another interpretive kiosk and viewing deck are proposed at the amphitheater. The combination of these elements will create and effective outdoor environmental education facility.
- 4. Existing Ballfields: There are no proposed changes for these facilities.
- 5. Existing Playground: There are no proposed changes for this facility except for the relocation of the existing fence between the playground and the Laguna. The fence will move 20 to 30 feet to the west. See item #8 for additional information.

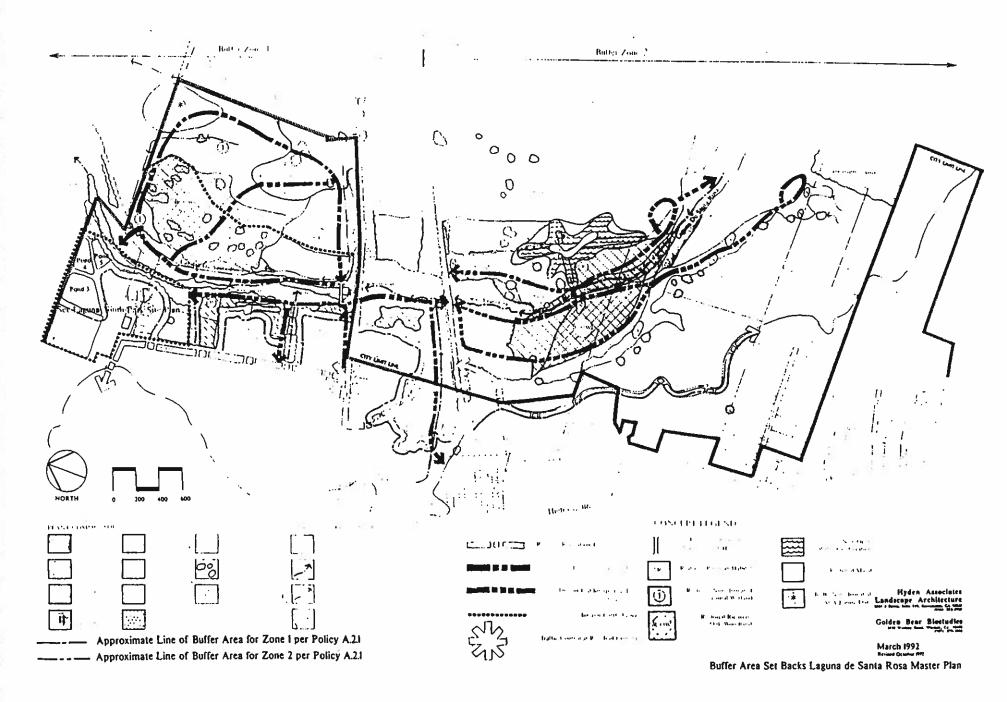
- 6. Existing Community Center: The Community Center will have a 625 foot classroom addition to replace the existing trailer located behind the building. The only other proposed change to the Community Center in this scheme is the elimination of the service drive behind the center. This area will be converted to lawn and landscaping for the park.
- 7. Teen Center: The configuration for the teen center was taken from a site plan prepared by Robert E. Anderson Architects. The Hyden Associates concept plan re-sites the teen center with an orientation to the parking lot. The center is set back in order to provide for the grade change necessary to bring the building above the 100 year flood level. The set back is generous enough to allow for a variation in slope as well as ample landscaping.
- 8. Relocated Picnic Facility: The existing picnic table adjacent to the playground are relocated into a group picnic facility more central to the park. This relocation allow the area currently used for picnicking to continue the reversion to a wetland it has already begun.
- 9. New Parking Lot: A new parking lot is proposed for the area adjacent to the amphitheater and renovated ponds. This new 69 space lot will provide additional parking for the proposed passive- and nature-interpretive uses as well as parking for the proposed teen center. In addition it will make up the 17 space deficit that currently exists at the park.
- 10. Existing Weischmann Dance Hall: There are no proposed changes for this facility.
- amphitheater/Outdoor Classroom: A sixty seat amphitheater/outdoor classroom will be located in the passive area of the park north of the renovated ponds. The amphitheater/outdoor classroom will be oriented with a view of the renovated ponds and the Laguna beyond. It will have a ten foot stage and retaining wall type seating.

Native trees shrubs and ground covers will be used for adjacent landscaping.

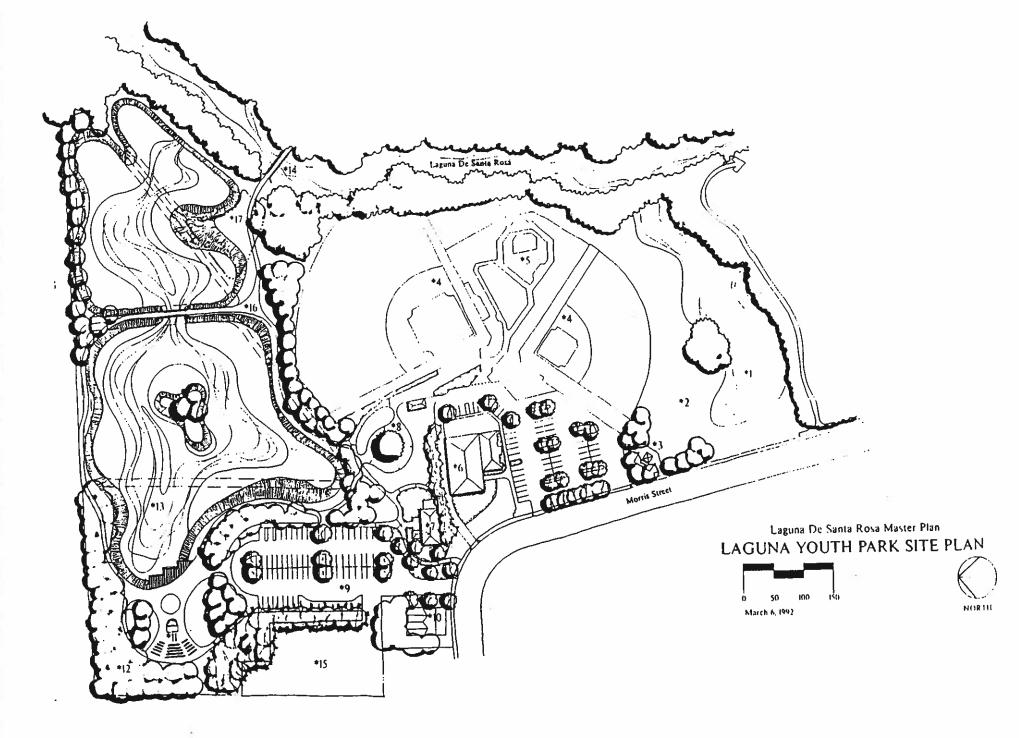
- 12. Native Tree Buffer: Groves of native trees will be planted to create a buffer effect between park uses and existing land uses adjacent to the park. The tree buffer depth will range from eighty to forty feet in depth. The trees will be selected for their ability to provide food and cover for wildlife as well as for their screening capabilities.
- 13. Renovated Ponds: The former waste treatment ponds located on the Laguna Park site will be renovated and restored to appropriate wetland habitat. The renovation will consist of removal of fill, reshaping to a more natural configuration, replanting with suitable wetland plants, and the possible introduction of water level fluctuation from the Laguna. Wherever possible, the 2:1 slope of the existing ponds will be regraded to a gentler and less geometric slope. This will not only improve the aesthetic aspect of the pond, but it will also increase the safety of the path to pond edge relationship (see cross section). Mitigation of the City's unauthorized fill issue with the Army Corps of Engineers will be part of this element.
- 14. Interpretive/Nature Trail Pedestrian Bridge: A pedestrian bridge across the Laguna will provide access to the east side of the Laguna.
- 15. Relocated City Storage Yard: The City Storage Yard has been relocated as shown.
- 16. Handicap Accessible Interpretive Path: A new handicap accessible interpretive path system will be developed around the renovated ponds. This path system will consist of six foot wide asphalt path with viewing areas and interpretive signage.
- 17. Area of Unauthorized Fill: This is the approximate limit of the area of unauthorized fill as described by the U. S. Army Corps of Engineers.



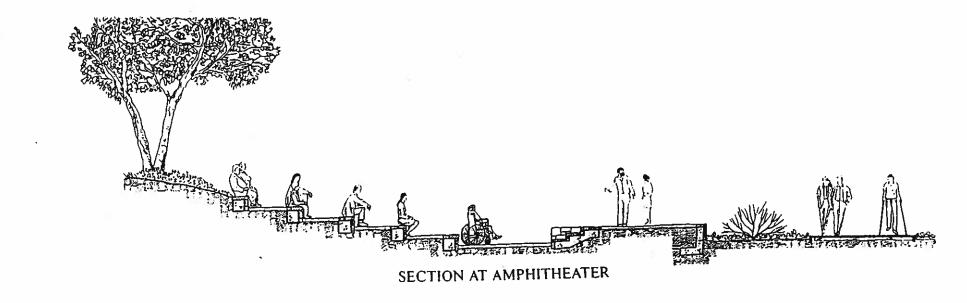
Laguna de Santa Rosa Master Plan Figure 6A

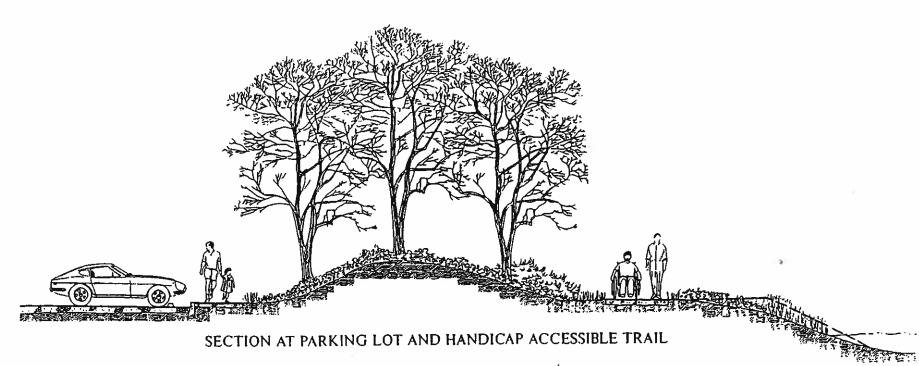


Buffer Area Set Backs Laguna de Santa Rosa Master Plan Figure 6B

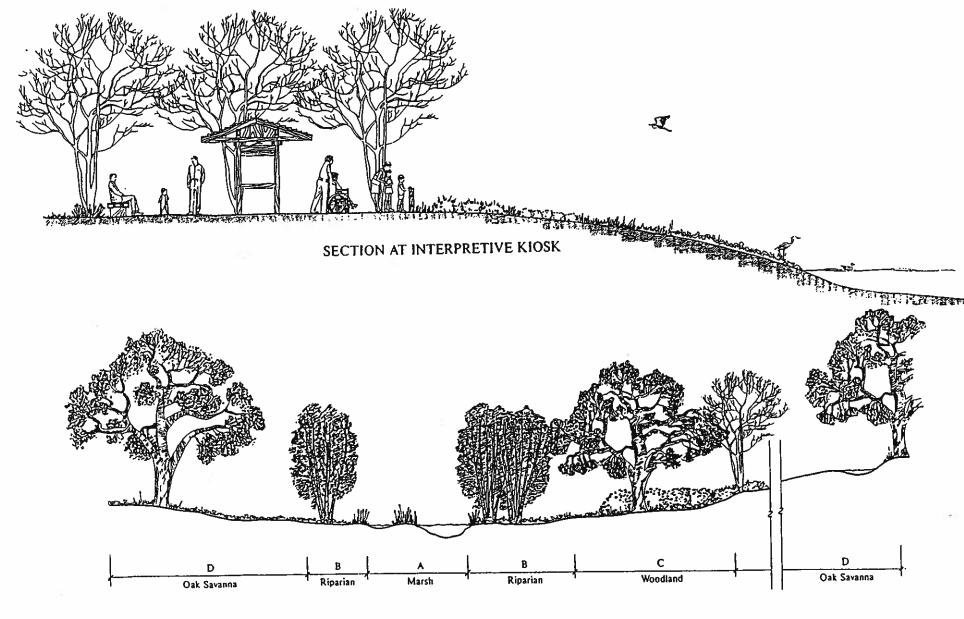


Laguna Youth Park Site Plan Figure 7





Section at Amphitheater and Section at Handicap Accessible Trail Figure 8



TYPICAL RESTORATION SECTION

Section at Interpretive Kiosk and Typical Enhancement Section Figure 9

GOAL I: Preserve and Protect Archaeological Resources of the Study Area

The following recommendations are designed to protect sensitive archaeological resources from degradation or disturbances by development and use of recreation facilities in the study area.

Objective I.1:

Complete the archaeological inventory of the study area

Policy I.1.1:

Prior to the development of construction documents for each phase of the master plan, retain a qualified archaeologist to prepare an archival search and archaeological survey for the project site.

Objective 1.2:

Protect archaeological resources within the study area.

Policy I.2.1:

In areas where archaeological resources are present, develop detail designs to avoid impact on the resource.

Policy I.2.2:

Construction or earth-disturbing activities occuring adjacent to identified archaeological resources should be conducted following the recommendations provided by a qualified archaeologist.

CONSTRUCTION COSTS AND PHASING

Construction Cost

Establishing realistic budgets is a critical step in the development The following is a summary the estimate of probable construction cost (see Appendix 9 Volume 2 for the detailed estimate). Also included is a summary for the proposed first phase of construction. Other phases will be developed as funding sources become available.

Table 2
Summary of Estimate of Probable Construction Cost

ITEM	DESCRIPTION	TOTAL
1	Mobilization	\$69,332
2	Habitat Enhancement	\$406,870
3	Site Development	\$504,659
4	Planting & Îrrigation	\$12,900
5	Subtotal	\$993,761
6	Design Contingency	\$248,440
7	Design & Engineering Fees	\$120,665
8	Total Construction Cost	\$1,362,866

Phasing

Currently the City has \$70,000.00 for the first phase construction of Laguna de Santa Rosa Park. This first phase will consist of the following elements

To be completed after adoption of plan

MAINTENANCE

In order to help the City determine the scope of maintenance activities and the staff time required to accomplish those activities, a maintenance task/time estimate was prepared for this plan (see Appendix 10 volume 2 for the detailed estimate).

This estimate identifies the various maintenance activities required for existing, and proposed facilities. A staff time unit was established for each activity. This time unit was then multiplied by the quantity or area related to the particular activity to obtain the amount of staff time required to perform the maintenance for a particular element in the facility. For example, it takes a staff person .05 hours to mow 1000 square feet of turf. There are 38,000 square feet of open turf existing on the Laguna Youth Park site, so it would take 1.9 hours of staff time mow the open turf.

The next variable in the estimate is the frequency that the maintenance activity is performed. To a certain extent this a judgement call by the maintenance superintendent. The variables to consider are the total number of facilities city wide to be maintained, the number of available staff, type of equipment, and the level of use and visibility of the particular facility.

The estimate prepared for this plan assumes a high level of maintenance associated with well-developed parks with high visibility, use, traffic, and visitation. See the detailed estimate in volume 2 for detail on frequency of maintenance activities assumed for this estimate. By multiplying the number of staff hours for a particular activity by the annual frequency of that activity a total annual staff time requirement as calculated for each maintenance activity.

The next element in developing the estimate was to determine the actual number of hours that a maintenance staff person is available to maintain a facility.

After accounting for vacation, sick leave, training, and breaks, approximately 1732 hours of a standard 2080 hour work year (52 weeks at 40 hours per week) are available per maintenance staff person for actual maintenance activities.

By taking the total staff hours required to maintain a facility on an annual basis and dividing that number by the available work hours per maintenance staff person, the total number of staff required to maintain the entire facility was calculated.

The following is a summary of maintenance staff required to maintain the existing and proposed facilities in this plan.

Table 3
Summary of Maintenance Estimate

Area	Yearly Staff Hours	Approximate # of Staff
Existing Youth Park	2575	1.49
Proposed Youth Park Addition	2138	1.23
Recreation & Interpretive Trails	415	0.24
Total Staff	5128	2.96

This estimate makes certain assumptions which can be changed in order to affect the amount of maintenance required for the facility. First of all, as stated previously, this estimate assumes the highest level of park maintenance. By reducing the level of maintenance, primarily by reducing the frequency of maintenance operations, staff requirements can be reduced. For instance, by cleaning restrooms every other day in lieu of daily, 182 staff hours can be eliminated annually.

Another area where paid staff time can be reduced is through the use of volunteers and service organizations. The City currently has such an arrangement with the little league for maintenance of the existing ball fields.

Additional relationships could be developed with other volunteer groups and service organizations. The quarterly maintenance and annual repair tasks would be most suited for this this type of relationship.

However, use of volunteer labor requires supervision and coordination by professional maintenance staff in order to safety standards and quality control.

FUNDING

Obtaining public funding for project development is increasingly competitive due to federal and state budget constraints. Fortunately public access and nature observation and interpretation projects are high on the funding priority list of the California Department of Parks and Recreation.

Appendix 1 list the agencies, programs, and funding structure for funding and financing of acquisition, planning, and development of the Laguna de Santa Rosa Park.

In the process of pursuing funding for this project, a strategy that incorporates the following elements is suggested.

The use of non-profit agencies and volunteer groups should actively explored. These groups are most effective in the operations and maintenance aspects. However given the right project and proper supervision, volunteer groups have been successful in implementing capital improvements.

Private contributions from concerned individuals and group should be energetically sought for development of the park. One successful method is to dedicate park features (i.e. kiosks, amphitheater, benches, etc.) in honor of the contributor.

Community input should be sought regarding the use of tax increment funding (i.e. Landscape and Lighting Act of 1972) for park development. If these concepts are met with support, they should be further explored as a source of funding for acquisition, development, and maintenance.

Given the costs of park development and the limited financial resources of the City, grants and other programs with minimum contributions from the City should receive the highest priority. All agencies and programs listed in appendix 1 should be explored as possible funding sources. The following are examples of available programs:

1. Environmental License Plate Grants (competitive grants with no matching requirement)

- 2. Sonoma County Agricultural preservation and Open Space District (potential funding for areas of biotic significance and other open space projects on a competitive mattiching grant basis.)
- 3. Cigarette and Tobacco Tax Benefit Fund (prop 99) (special funds allocated by the legislature)
- 4. Warm Springs Dam Mitigation U. S. Army Corps of Engineers(current congressional appropriation request for acquisition and restoration as part of the mitigation plan)
- 5. Landscaping and Lighting Act of 1972 (Funding via improvement bonds; repayment is by assessments against benefiting properties)
- 6. California Conservation Corp (trail construction and maintenance)

GLOSSARY

NATURAL RESOURCE TERMS

Alluvium - fine sediments deposited by floods.

Anaerobic - a condition in which molecular oxygen is absent from the environment.

Aquatic - an environment dominated by the influence of water, which occurs at depths able to sustain fish, amphibians and other organisms intolerant of terrestrial conditions. A type of wetland.

Channel - An open conduit, natural or human-made which periodically or continuously contains moving water.

Channel-bank - the sloping land bordering a channel.

Community - an assemblage of organisms living together.

Conservation Biology - the science of biological scarcity and diversity.

Dominant - the species controlling the environment.

Ecology - the study of how living things relate to their environment.

Ecosystem - a natural complex of plant and animal populations and the particular sets of physical conditions under which they exist.

Emergent (vegetation) - erect, rooted herbaceous plants that may be temporarily or permanently flooded at the base, but do not tolerate prolonged inundation of the entire plant. Bulrush, cattails, etc...

Enhancement - augmenting an existing natural community with protective measures and improvements to the habitat to maximize its potential ecological value.

Flooded - a condition in which the soil surface is temporarily covered with flowing water from any source, typically streams.

Floodplain - the flat expanse of land bordering a stream that is subject to flooding.

Food web - the interlocking pattern of food chains in an ecosystem. A food chain is a transfer of food energy through a series of animals.

Forbs - Broad-leaved herbs, in contrast to mosses, ferns, and grasslike plants. Lupines, daisies, irises, etc...

Forest canopy - the cover of branches and foliage formed collectively by tree crowns.

Fragmentation - breaking up of contiguous areas into progressively smaller patches of increasing degrees of isolation.

Growing Season - generally, the frost free portion of the year. Biologically, the time of year when the soil temperature averages above 41°F. Growing seasons of the Santa Rosa Plains are either "thermic" (February-October) or "mesic" (March-October).

Habitat - the place where an organism lives.

Hardpan - a very dense subsurface soil layer, typically clay (claypan) at 6-24 inches below the surface, that prevents the downward percolation of water, often resulting in a "perched" water table, thereby forming vernal pools.

Herbaceous - With the characteristics of an herb; a plant with no persistent woody stem above the ground.

Hummocky (topography) - an undulating soil surface which forms a mosaic of small hills and depressions or swales, in which vernal pools are found.

Hydric Soil - a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

Hydrology - study of the laws and properties of water.

Hydrophytes, hydrophytic - any plant growing in water or on a soil that is periodically deficient in oxygen (anaerobic) as a result of excessive water content.

Landscape ecology - the study of spatial and temporal interactions and exchanges across heterogenous landscapes, the influences of spatial heterogeneity on biotic and abiotic process, and the management of spatial heterogeneity.

Landscape - large regional units of land that are viewed as a mosaic of communities irrespective of political or other artificial boundaries.

Marsh - A natural community of emergent hydrophytes and associated animals found in a basin of flooded with shallow water or possessing saturated soils.

Ponded - a condition in which free water covers the soil surface, for example in a closed depression, often forming vernal pools, from which water is removed only by percolation, evaporation, or transpiration.

Preservation - the protection of an existing community or landscape unit in its current condition because it is a remnant of the historic ecosystem that adequately represents an example of relatively undegraded conditions.

Restoration (Ecology) - the study and practice of creating entire communities of organisms closely modeled after communities that occur naturally.

Riparian (Zone/Woodland) - an area of vegetation adjacent to an aquatic ecosystem. It has a high water table, certain soil characteristics (i.e. hydric) and some vegetation that requires free water or soil conditions that are more moist than normal. This zone is transitional between aquatic and upland zones.

Riverine - all wetland and deepwater environments confined within a channel.

Salmonid - fish of the Samonidae family, including rainbow trout, steelhead and coho salmon.

Sensitive Habitats - habitats which are populated or used by species of concern, or are unique communities that are rare in themselves (i.e. vernal pools) and have been identified by DFG as "habitats of concern," or have special regulatory provision controlling their use or development (i.e. wetlands).

Shrub - a woody plant which at maturity is less than 20 feet in height and bushy in appearance, typically with several, erect stems.

Snag - a standing dead tree from which the leaves and most of the branches have fallen. An important habitat for cavity nesting wildlife.

Species richness - a component of community species diversity that is expressed in simple ratios between total number of species and importance values.

Species of Concern - any plant of animal species that is listed by state or federal agencies as rare, threatened or endangered, or has been identified as a "species of special concern" or as protected by DFG, meets the CEQA definition of rarity, or has been identified by experts as warranting special consideration because of declines in population. Stand (trees) - a contiguous group of trees sufficiently uniform in age and size class distribution, composition, structure, site quality, and/or locality to be a distinguishable unit.

Succession - a process of natural community development that involves changes in species structure and community processes over time.

Terrestrial - an environment dominated by soils and vegetation influenced by periodic dryness in which life has adapted to upland conditions.

Tree - a woody plant 5 inches or greater in diameter at breast height and greater than 20 feet in height.

Upland - any area that does not qualify as a wetland because it does not posses wetland hydrology, i.e. it is not sufficiently wet.

Water Table - the upper surface of a zone of saturation existing in the soil or bedrock below the soil.

Wetland Hydrology - permanent or periodic inundation or prolonged soil saturation sufficient to create anaerobic conditions in the soil.

Wetland - Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support hydrophytic vegetation (hydrophytes) adapted for life in saturated soil conditions (hydric soils). Wetlands include marshes, vernal pools, riparian woodland and riverine environments.

RECREATION TERMS

Amphitheater - A round or oval arena with tiered seating, usually recessed into a hillside. First devised by the Greeks as a setting for drama.

Handicap Accessible Interpretive Trail - A trail with the primary purpose of providing access to and interpretation of, the laguna and its' environs. The trail is designed to meet the access requirements of the California Office of the State Architect

published in Title 24 of the California administrative Code. The trail surface is paved with an all weather surface.

Interpretive Center - For purposes of this plan an interpretive center is considered to be a building or group of buildings whose main function is to provide facilities for environmental education and interpretation of the laguna and its environs. The area for such a facility would range from 2,000 to 4,000 square feet. The facility would provide space for a classroom/theater for approximately 60 people; an indoor display for interpretive displays, space for a book and gift sales, administrative office area, restrooms and storage.

Interpretive Kiosk - A small multi-sided structure display panels and roof; they are usually placed in a position of prominence - i.e., at the trail head of the interpretive trail.

Interpretive Trail - A trail with the primary purpose of providing access to and interpretation of, the laguna and its' environs. The trail surface will be unpaved.

Recreation Trail - A trail for hikers, joggers, and bicyclists (equestrians are excluded in this plan). The trail paved and designed to Caltrans Class I standards.

Viewing Deck - A deck over or directly adjacent to, water or mash which provides viewing opportunities of plant and wildlife.

Vista - A defined or refined scenic view. a focused view. Vistas may be closed (limited within a garden) or open - i.e., stretching to the distant landscape.

Viewshed - All the surface areas visible from an observer's viewpoint; also, the surface areas from which a critical object or viewpoint is seen.

Visual Character - The visual character of a landscape is formed by the order of the patterns composing it; the visual elements of these patterns are the form, line, color and texture of the landscape's components; their interrelationships can be described in terms of dominance, scale, diversity, and continuity.

Visual Compatibility - The degree to which development with specific visual characteristics is similar in character to it setting.

Visual Impact - The degree of change in visual resources and view response to those resources caused by a development project.

Visual Resources - The appearance of the features that make up the visible landscape.

APPENDIX 1 FUNDING PROGRAMS

Program:

Watershed Protection and Flood

Prevention

Eligible Projects:

Flood prevention, sedimentation control,

pubic water-based fish and wildlife,

recreation, etc.

Funding Structure: Planning (technical assistance) and

development financial assistance. Share requirement is 50% for fish and wildlife purposes. No matching requirement for

flood prevention projects.

Agency & Contact: Soil Conservation Service

Headquarters Office

Deputy Chief for Programs

USDA

P.O. Box 2890

Washington D. C. 20013

(202) 447-4527

Program: Small Reclamation Projects

Eligible Projects: Single-purpose or multi-purpose, including

flood control, fish and wildlife, and

recreation development, etc.

Funding Structure: Development grants and direct loans.

Cities, counties and water districts are

eligible.

Agency & Contact: Department of Interior

Bureau of Reclamation Headquarters Office

Environment and Planning Branch

Washington, DC 20240

(202) 343-5104

Program: Cooperative Projects with Local

Governments Wildlife Conservation

Board

Eligible Projects: Acquisition or improvements which

preserve wildlife habitat or provide recreational access for fishing, . . . and other wildlife oriented recreation, including wildlife observation and interpretive trails, streams improvements, restrooms and

parking areas.

Funding Structure: Capital outlay to local governments on a

reimbursement basis Normally funds 100%

for the project.

Agency & Contact: California Department of Fish and Game

Wildlife Conservation Board

1416 Ninth Street Sacramento, CA 95814

(916)445-8448

Program: Environmental License Plate Grants

Sonoma County Agricultural Program: Eligible Projects: Have one or more of the following Preservation and Open Space purposes: control and abatement of air District pollution; acquisition, preservation and restoration of natural areas; purchase of Eligible Projects: Purchase of development rights for areas property for park purposes or public designated in the General Plan Open space accessways to coastal areas; environmental Element as community separators, scenic education; enhancement of resources; landscape units, critical habitat areas and protection of wildlife habitat; and protection riparian corridors (Laguna de Santa Rosa of non-game species and rare and identified as area of biotic significance); endangered plants and animals. purchase of fee interest for public recreation. Funding Structure: Competitive grants with no matching requirement to, among others, local Funding Structure: Competitive matching grants with government, special districts, and nonpreference given to acquisition and profit organizations. development projects which affect both incorporated and unincorporated lands and California Resources Agency Agency & Contact: watercourses. 1416 Ninth Street Sacramento, CA 95814 Sonoma County Agricultural Preservation Agency & Contact: (916)445-8448 and Open Space District 2300 County Center Drive, Suite 128A Santa Rosa, CA 95403 California Conservation Corps Program: (707) 527-3126 (CCC) Eligible Projects: Trail construction and maintenance and Urban Park and Recreation Program: similar projects not requiring high technical Recovery Program skills, under supervision of more highly skilled personnel. Eligible Projects: Expansion, remodeling or developing indoor and outdoor recreation areas and The CCC many require a project sponsor to Funding Structure: facilities, emphasizing neighborhood pay for a portion of the work performed by facilities, distressed areas and existing CCC crews. facilities which are closed and in need of repair. California Conservation Corps Agency & Contact: 1530 Capitol Ave. Funding Structure: Matching capital grants Sacramento, CA 95814 (70% federal/30% local) (916)445-8183 Agency & Contact: National Park Service Headquarters Office

	Recreation Grants Division Attn: Mr. Sam Hall, Chief P.O. Box 37127 Washington, DC 20013 (202) 343-3700		1/3 to wildlife, 1/3 to fisheries, and 1/3 to waterfowl. Local applicants apply to one of the natural resource agencies such as Parks and Recreation or Fish and Game. The legislature determines whether a project
Program: Eligible Projects:	Land and Water Conservation Fund Acquisition, development or rehabilitation of neighborhood, community or regional parks or facilities supporting outdoor		will be funded and subsequently disburses funds through the appropriate state agency on a project-specific basis. Assemblywoman Bev Hansen tapped this fund for \$100,00 to build the Farmers Lane trail as a Local Assistance Project.
	recreation.	Agency & Contact:	Appropriate State Legislator
Funding Structure:	Matching grants to cities, counties and recreation and park districts authorized to provide public park and recreation facilities. \$35 million funded for FY 91.	Program:	Roberti-Z'-Berg-Harris Urban Open Space and Restoration Grant
Agency & Contact:	National Park Service Headquarters Office Recreation Grants Division	Eligible Projects:	Acquisition and development, innovative recreational programs and other projects related to open space recreational lands.
	Attn: Mr. Sam Hall, Chief P.O. Box 37127 Washington, DC 20013	Funding Structure:	Grants available to government agencies and public recreation and service districts.
	(202) 343-3700	Agency & Contact:	California Department of Parks and Recreation
Source:	Land and Water Conservation brochure, National Park Service. Catalog of Federal Domestic Assistance		Local Assistance Section P.O Box 942896 Sacramento, CA 94296-0001 (916) 323-6586
Program:	Cigarette and Tobacco Tax Benefit Fund (Prop 99)	Program:	Per Capita Grant Program/Special Districts Grant Program
Eligible Projects:	Park and habitat enhancement	Elizible Berinster	~
Funding Structure:	Natural resource funds (about 5% of the total Prop. 99 funds) are divide 50%/50% between parks and habitat projects. The habitat funds are further divided as follows:	Eligible Projects:	Open space acquisitions and recreational enhancements.

Funding Structure: Agency & Contact:	Funding annually available to government agencies, park and recreation districts, and special districts. California Department of Parks and Recreation Local Assistance Section P.O. Box 942896 Sacramento, CA 94296-0001	33 KE	Agency:	which would be primarily beneficial to residents of the immediate neighborhood. However, the district could be configured as large as the entire city. City of Sebastopol Sonoma County
1	(916) 323-6586		Program:	Warm Springs Dam Mitigation U.S. Army Corps of Engineers
Program:	Parks Impact Fees	Eligible	Projects:	Projects which mitigate impacts of the Warm Springs Dam, as determined by the
Eligible Projects:	New development projects in the City.			U.S. Army Corps of Engineers, including potential restoration of the Laguna de Santa
Funding Structure:	Land dedications or in-lieu payments are enabled under the "Quimby Act" to secure park and recreation benefits associated with new population growth.	Funding	Structure:	Rosa.
Agency & Contact:	Recreation and Parks City of Sebastopol			
Program:	Landscaping and Lighting Act of 1972			
Eligible Projects:	Acquisition of land for parks, recreation and open space, installation or construction of landscaping, public lighting and maintenance of any facilities.			
Funding Structure:	Bonds issued in accordance with the Improvement Bond Act of 1915, by cities, counties and special districts. Repayment is by assessments against benefiting properties within the benefit district, which must be accepted by a majority of property owners. This measure might be applied to particular park facilities along the creek	Agency	& Contact:	U.S. Army Corps of Engineers Sacramento District 650 Capital Mall Sacramento, CA 95814

Program:	Fishery Restoration Grant Program	Program:	Habitat Conservation Fund
Eligible Projects:	Enhancement, development or restoration of property, including non-navigable lakes	r vg. a	(Wildlife Protection Act and Prop.117)
a)	and streams, riparian zones in order to restore, rehabilitate and improve fish and wildlife habitat. Example activities include removal of barriers to fish mitigation and improvement of resting and breeding places.	Eligible Projects:	Wetlands habitat, habitat for spawning and rearing anadromous salmonids and trout, riparian habitat, and trails/programs/urban access.
Funding Structure:	Block Grant on a per capita basis, with no	Funding Structure:	50% matching grants to local agencies, through appropriate State Legislator.
	matching required, to public agencies and non-profit organizations.	Agency & Contact:	California Dept. of Parks and Recreation Office of Local Assistance
Agency & Contact:	California Dept. of Fish and Game Inland Fisheries Division Grant Program 1416 Ninth Street, Room 1251 (916) 323-7323		Attn: Ken Martin, Chief of grants 1416 Ninth Street, Room 1449-1 P.O. Box 942896 Sacramento, CA 94296-0001 (916) 323-9589
			(710) 323 7007
Program:	Wild Trout and Native Steelhead Program	Program:	Urban Streams Restoration Program
Eligible Projects:	Restoration and enhancement of wild trout and native steelhead habitat; design and construction of an experimental propagation facility; acquisition of land important for the perpetuation of wild trout and native steelhead; and provision of public access to wild trout and native steelhead waters.	Eligible Projects:	Primary objective is for flood control or erosion control. Projects must also maintain or enhance the natural characteristics of a stream or restore a stream to its natural state. Innovative projects such as "daylighting" culverted creeks are top priorities. Projects can range from organizing volunteers, to monitor or
Funding Structure:	100% state grant with no matching requirements. Applicants unrestricted.		clean up streams, or projects as complex as completely restoring streams to an original, natural state.
Agency & Contact:	California Dept. of Fish and Game Inland Fisheries Division 3251 S Street Sacramento, CA 95814 (916) 739-3019	Funding Structure:	Competitive grant with no match, to cities, counties, districts and non-profit organizations. Projects must be cosponsored by both a local public agency and a private citizens group or organization

Agency & Contact:	Out late 1992-early 1993. California Dept. of Water Resources Urban Stream Restoration Program Attn: Earle Cummings P.O. Box 942836 Sacramento, CA 94236 (916) 327-1656 Nonpoint Source (Pollution) Implementation Grant Program	Program: Eligible Projects: Funding Structure: Agency & Contact:	Enhancement projects on creeks and tributaries in the agency's jurisdiction Annual budget for habitat enhancement Sonoma County Water Agency 2150 West College Avenue Santa Rosa, CA 95406 (707) 544-2736
Eligible Projects:	Reduction of pollution caused by construction along creeks and urban runoff.	Program:	Wetland Mitigation Site
Agency & Contact:	State Water Quality Control Board Attn: Pablo Gutierrez P.O. Box 944213 Sacramento, CA 94244-2130 (916) 322-8342	Eligible Projects:	The Laguna de Santa Rosa could be made available for off-site wetlands mitigation. Development projects in the region which would result in the loss of wetlands or diminished wetland values may not be about the country of the count
Program:	Successful Communities Innovation Grants		to mitigate those wetlands impacts on the site of the proposed projects. Therefore, other suitable off-site locations for restoration of other degraded wetlands, such sites along the Laguna, could be
Eligible Projects:	Projects intended to protect natural features.		designated as potential "receptor" sites. Affected agencies or the proposed joint
Funking Structure:	Grants to grass-roots non-profit organizations. Sebastopol received a grant to retain and restore their urban creeks.		powers commission could work with persons seeking wetland mitigation sites devise wetlands restoration plans which consistent with the intent of the master
			plan.
Program:	Sonoma County Fish and Wildlife Advisory Board	Funding Structure:	Developer-funded wetland restoration
Eligible Projects:	Wild-life related projects	Agency:	City of Sebastopol City Council Sonoma County of Supervisors
Agency & Contact:	Sonoma County		

Program:	Northern California Greenways Council		and interpretive trail system, and then dedicated to the City.
Eligible Projects:	Planning and implementation projects related to establishment of greenbelts.	Funding Structure:	Development and dedication of improvements by private developers would be conditions for project approval, perhaps
Funding Structure:	Grants.		guided by amended development standards in the zoning ordinance. Alternatively, land
Agency & Contact:	Northern California Greenways Council (415) 284-5120		use dedication and an in-lieu payment could be made for the City or County to develop
Program:	Various Approaches to Acquiring Land for Trails and Parks.		creekside trails at a later time. The requirement would apply to all properties which are proposed to be developed or redeveloped for commercial or residential purposes.
Eligible Projects:	Development of bicycle and pedestrian paths across developed private property adjacent to the Laguna.	Agency & Contact:	City of Sebastopol County of Sonoma
Funding Structure:	Donating of land or conveyance of easements by property owners in exchange for such benefits as reduced property taxes,	Program:	In-Kind Donations
	or cash. Other benefits could include direct access to the trail system, and new fences along the rear of developed lots.	Eligible Projects:	Trail construction, construction materials supply, and maintenance.
Agency & Contact:	The City and County could be recipients of dedicated land or easements. A non-profit entity such as the Laguna Foundation could also receive land gifts for later conveyance to the City or County.	Funding Structure:	Service, community and fraternal organizations can offer volunteer workers for trail construction and maintenance. They can also solicit free or wholesale materials and construction equipment for construction. Trail adoption programs can
Program:	Creation of Development Regulations Requiring Land		be established to enable service, hiking and bicycling clubs to maintain particular reaches of the trail system.
	Dedication As Part of Proposed New Development Projects	Agency & Contact:	Association of Bay Area Governments, Financing and Implementing the Bay Trail: Tools and Strategies, February 1989.
Eligible Projects:	Undeveloped sites adjacent to the Laguna where land adjacent to the Laguna could be developed with sections of the recreation		

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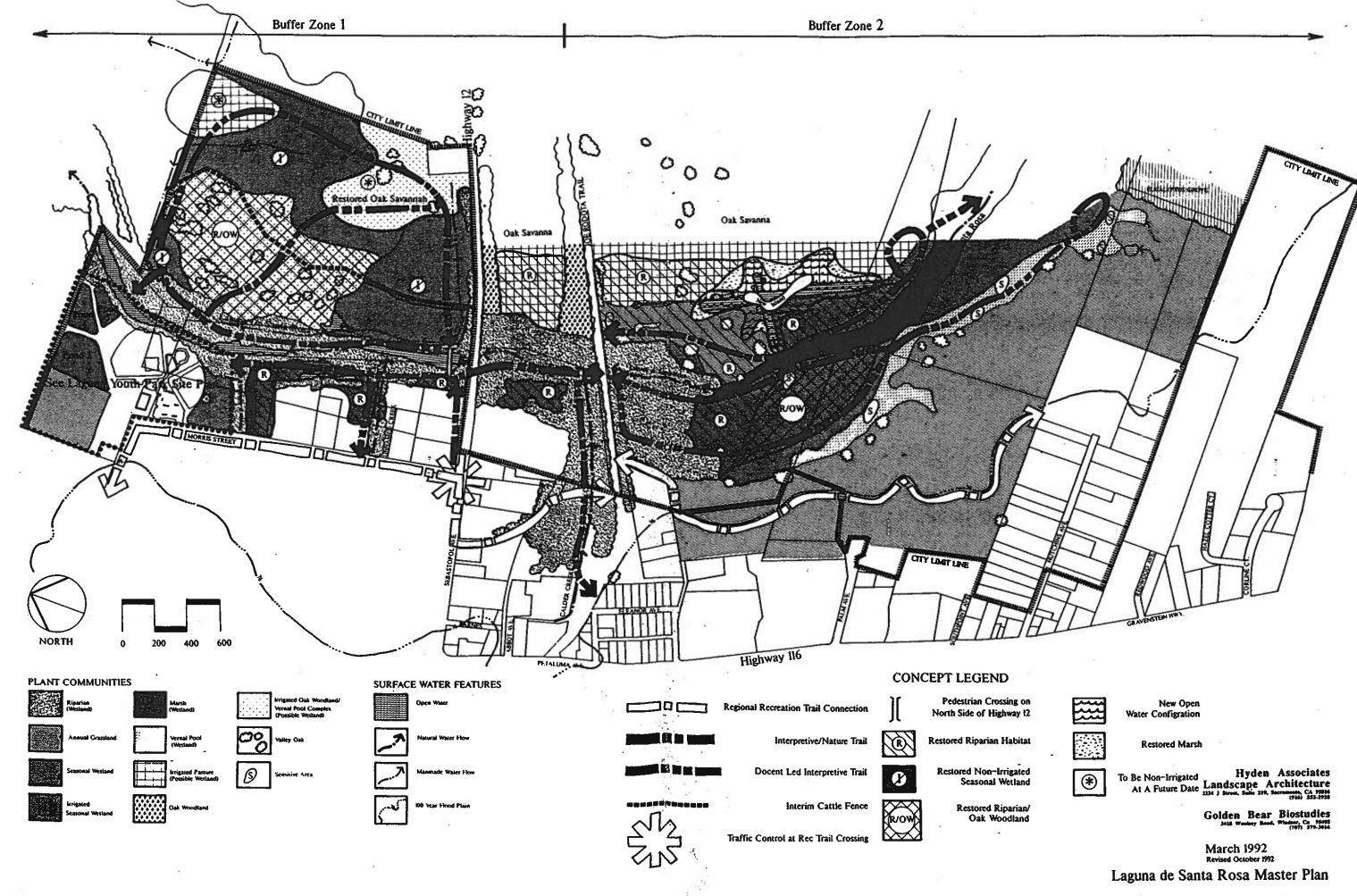
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