SANTA TERESA COUNTY PARK

PARKS AND RECREATION DEPARTMENT
SANTA CLARA COUNTY

FINAL MASTER PLAN REPORT
APRIL 1992
SANTA TERESA PARK PROJECT TEAM

PROJECT MANAGER

Mark Frederick, Park Planner
Parks & Recreation Department, Santa Clara County

Douglas Gaynor, Director of Parks & Recreation
Santa Clara County

Alan La Fleur, Deputy Director
Parks & Recreation Department

Donna Logan, Senior Real Estate Agent

David Pierce, Regional Park Planner

Ray Garcia, Regional Park Manager

Ben Assenza, Park Manager

Denis Beason, Senior Ranger

Bob Dennis, Parks Maintenance Worker III

Mike Bomberger, Associate Real Estate Agent

Bill Veniura, Park Manager

CONSULTANTS

Park Planning: Tito Patri & Associates
Tito Patri - Principal-in-Charge

Burt Tazoue - Project Manager

Heather Rae - Document Processor

Traffic Engineering: Pang and Associates

Civil Engineering: Robinson and Associates

Historic & Prehistoric Resources: Archaeological Resource Management

Architecture: Alton and David Lee

Wildlife: Habitat Restoration Group

Geology: Applied Earth Technology
SANTA TERESA PARK TASK FORCE

Mr. Jerry Shrum, President
Almaden Homeowners Association

Ms. Cherie Montgomery
Almaden/Quicksilver Endurance Riders

Mr. Dinesh Desai
Bay Area Ridge Trail Council

Mr. Ben Rogers
Black Mountain Bowman

Mr. Mark Eisenius
Heritage Caballero

Mr. Ray Dios
IBM - Almaden Research Center

Mr. Dick Dickenson
IBM - Santa Teresa Lab

Mr. David Williams
KSJO/KFJC

Dr. Stanley J. Baran
KSJS/San Jose State University

Mr. Al Ding, Probation Dept.
County of Santa Clara

Muriel Wright Residential Center

M/M R. Hunter
Neighboring Land Owners

Mr. Matt Hurley
Neighboring Land Owners

M/M E.J. Lagattuta
Neighboring Land Owners

M/M Daniel Rossetto
Life Estate Holders

Ms. Kitty Monahan, President
New Almaden Quicksilver County Park Assoc.

Mr. Loren Loo
PG&E

Ms. Darcy Becker
Rancho Santa Teresa Pueblo Assoc.

Mr. Mike Britton
ROMP

Mr. Joel Slavit
City of San Jose Recreation, Park & Community Services

Chief Osby
City of San Jose Fire Department

Officer Galvan
City of San Jose Police Department

Sergeant Ron Tannahill
City of San Jose Police Department

Ms. Janice Frazier
Santa Clara County Horseman's Assoc.

Garnetta Annable
Santa Clara County Parks & Recreation Commission

Lt. Keenan Kirby
Santa Clara County Sheriff

Mr. William Hoot, Senior Civil Engineer
Santa Clara Valley Water District

Mr. Mike Rawiner, Concessionaire
Mr. James McGrath
Santa Teresa Golf Course

Ms. Kathy Ming-Hyde Board Aide
Supervisor Mike Honda's Office

Mr. Bob Kelly
Mr. Don Axtell
Trail Advocacy Committee

Ms. Marta Stewart
Mr. Eric Jorgensen
U.C. Cooperative Extension
Mr. W.R. Webster
Western Union Corp.
TABLE OF CONTENTS

I. EXECUTIVE SUMMARY ........................................ 1

II. INTRODUCTION AND BACKGROUND INFORMATION .......... 4
A. LOCATION ................................................. 4
B. PARK HISTORY ........................................... 5

III. COUNTY GOALS ........................................... 7
A. PRESERVATION 2020 REPORT .............................. 7
B. COUNTY GENERAL PLAN .................................... 9

IV. MASTER PLAN GOALS AND OBJECTIVES ................... 10

V. INVENTORY AND ANALYSIS ................................ 11
A. EXISTING URBANIZATION AND FUTURE GROWTH .......... 11
B. RESOURCE VALUES ....................................... 13
C. UTILITIES AND EASEMENTS ............................... 24
D. EXISTING RECREATIONAL FACILITIES AND USES ........ 27
E. TRAFFIC AND CIRCULATION ............................... 32
F. MAINTENANCE ........................................... 33
G. REVENUE GENERATION ................................... 37
H. PARK BOUNDARIES ....................................... 39

VI. ISSUES AFFECTING THE MASTER PLAN .................. 42
A. RECREATIONAL USE AND COMPATIBILITY ............... 42
B. ENVIRONMENTAL RECREATIONAL USE COMPATIBILITIES .. 45
C. SECURITY ............................................... 47
D. OPERATIONS ............................................ 48

VII. SYNTHESIS: OPPORTUNITIES AND CONSTRAINTS ........ 49
A. INTEREST GROUPS AND USE PROJECTIONS ............... 49
B. RESOURCE SENSITIVITIES ................................ 53
C. PLANNING AND DESIGN .................................. 56

VIII. MASTERPLAN ............................................. 64
A. RECREATIONAL NODES ................................... 64
B. TRAILS ................................................ 81
C. RESOURCE MANAGEMENT ................................ 93
D. OPERATIONS AND MAINTENANCE ......................... 98
E. ACQUISITION POTENTIALS ................................ 101
F. COST ESTIMATE ......................................... 103
<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Park Location Map</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Boundary Map</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Regional Trails &amp; Circulation Map</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Zoning Categories</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Adjacent Land Uses Map</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Views and Site Character</td>
<td>14</td>
</tr>
<tr>
<td>7</td>
<td>Joice Bernal Ranch Caretakers House</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>Joice Bernal Ranch House</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>Archaeological Resources Map</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>Vegetation Map</td>
<td>11</td>
</tr>
<tr>
<td>11</td>
<td>Wildlife Areas of Concern Map</td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td>Geologic Units Map</td>
<td>22</td>
</tr>
<tr>
<td>13</td>
<td>Slope Stability Map</td>
<td>22</td>
</tr>
<tr>
<td>14</td>
<td>Soil Map</td>
<td>22</td>
</tr>
<tr>
<td>15</td>
<td>Erosion Potential Map</td>
<td>22</td>
</tr>
<tr>
<td>16</td>
<td>Utilities and Easements Map</td>
<td>26</td>
</tr>
<tr>
<td>17</td>
<td>Existing Recreation Features and Uses Map</td>
<td>28</td>
</tr>
<tr>
<td>18</td>
<td>Established Trails Map</td>
<td>30</td>
</tr>
<tr>
<td>19</td>
<td>Traffic Counts - North</td>
<td>32</td>
</tr>
<tr>
<td>20</td>
<td>Traffic Counts - South</td>
<td>32</td>
</tr>
<tr>
<td>21</td>
<td>Revenue Generation Comparison</td>
<td>37, 38</td>
</tr>
<tr>
<td>22</td>
<td>Multi-use Trails Comparison</td>
<td>42</td>
</tr>
<tr>
<td>23</td>
<td>User Survey Summary</td>
<td>51</td>
</tr>
<tr>
<td>24</td>
<td>Physical Sensitivities Map</td>
<td>54</td>
</tr>
<tr>
<td>25</td>
<td>Shelter Zones Map</td>
<td>54</td>
</tr>
<tr>
<td>26</td>
<td>Shelter Zones Sections</td>
<td>54</td>
</tr>
<tr>
<td>27</td>
<td>Erosion Categories - Existing Trails Map</td>
<td>56</td>
</tr>
<tr>
<td>28</td>
<td>Physical and Visual Impacts Summary Chart</td>
<td>58</td>
</tr>
<tr>
<td>29</td>
<td>Proposed Modifications - Bernal Gateway</td>
<td>60</td>
</tr>
<tr>
<td>30</td>
<td>Phasing Diagram</td>
<td>67</td>
</tr>
<tr>
<td>31</td>
<td>Recreation Nodes Map</td>
<td>79</td>
</tr>
<tr>
<td>32</td>
<td>Proposed Trails and Canal Modifications</td>
<td>81</td>
</tr>
<tr>
<td>33</td>
<td>Trails, Roads and Parking Map</td>
<td>91</td>
</tr>
<tr>
<td>34</td>
<td>Centers and Access Points Map</td>
<td>92</td>
</tr>
<tr>
<td>35</td>
<td>Resource Management Zones and Goals Map</td>
<td>97</td>
</tr>
<tr>
<td>36</td>
<td>Acquisition Priorities Map</td>
<td>102</td>
</tr>
</tbody>
</table>
A. User Survey Information
B. Multi-use Trail Policy Survey
C. Utilities Information
   Prepared by: Robinson & Associates
D. Relative Slope Stability Map
   Prepared by: The Habitat Restoration Group
E. Santa Teresa County Park Biotic Resources
   Prepared by: The Habitat Restoration Group
F. Cultural Resources Report
   Prepared by: Archaeological Resource Management
G. Historical Architecture Report/Jolts Ranch
   Prepared by: Alton and David Lee Architects
H. Traffic Counts: Bernal Avenue at Heason Moore and Fortini Road near McKean Road
I. Memo from Traffic Consultant
   Re: Existing Traffic Condition
J. San Jose Municipal Code: Maximum Street Gradient Design Standards
K. Public Workshop Announcement & Workshop Survey
L. Form Letter from Multi-use Trail Proponents
   (1 of 7 received)
M. Letters, Article & Public Announcement
   Sent by: Multi-use Trail Proponents
I. EXECUTIVE SUMMARY
EXECUTIVE SUMMARY

Following a brief description of the location of the Park and the assemblage of the parcels in the 1950's and 60's, the Master Plan identifies background goals for the Park based on community and staff input and on environmental constraints. From these, consultants, staff, Task Force, and public workshop participants together formulated Master Plan goals (Chapter IV, "MASTER PLAN GOALS AND OBJECTIVES").

A major portion of this report is devoted to the inventory and analysis of physical and visual resources of the Park and its immediate surroundings. Chapter V, "INVENTORIES AND ANALYSIS," addresses man-made factors such as urbanization, utilities, and traffic circulation, as well as such natural factors as vegetation, wildlife, geology, and soils, and historic, prehistoric, and architectural resources. Each is mapped and described. This chapter also describes current maintenance policies which, due to limited staffing, result in minimal operational and maintenance capabilities. Potentials for revenue generation based on existing facilities are also examined. Very little in the Park, with its current amenities, generates substantial revenue. Use permit areas, namely in the Pueblo group picnic area provide some revenue. The major revenue source is the Santa Teresa Golf Course which is operated by a concessionaire under a 25 year lease. The income, however, does not go directly to the Santa Teresa Park but rather to the Park's Department's general fund.

The report then discusses a variety of issues that may affect the master planning process. Issues of concern are operations, security and compatibility. Operations and security problems focus primarily on the current lack of adequate staffing for the Park. Compatibility issues are two-fold: the competing and sometimes conflicting uses in parks; and the notable impacts on the physical and visual environment. Several significant compatibility questions are highlighted in this report, such as: trail use, trespassing and encroachment on/from neighboring properties, security and access control for the Park, and the addition of private and commercial utility structures within the Park.

Chapter VII, "SYNTHESIS: OPPORTUNITIES AND CONSTRAINTS," focuses on opportunities and constraints, and discusses the range of uses appropriate for the study area and those formal and informal groups which regularly use or anticipate using, the Park. Material for this topic was generated by a survey and input received at four public meetings. The range of uses most preferred do not vary widely from those which are associated with the Park up to about 1960.

The natural resources analyzed in Chapter VII reflect a sensitive and, in some places, fragile, physical environment because of a combination of plant and wildlife communities (largely associated with serpentine soils and riparian corridors) as well as a notable and widespread occurrence of significant historic and prehistoric sites. Lastly, because of the proximity of urbanization to the steep Santa Teresa Hills, much of the site is visually sensitive and cannot accommodate massive change to existing vegetation or in terms of the development of new structures. Such changes would, in any case, conflict with the County's park and open space goals and, most likely, the interests of the general public which is familiar with the Park.

This chapter concludes that adding appropriate uses which generate revenue involve either significant changes to existing facilities (primarily along the northern perimeter of the Park) or through the acquisition and development of adjacent parcels such as the Norred and Rossett Ranches. These could, notwithstanding traffic and other impacts, be converted to major activity centers possibly making use of reservation group picnic facilities. During the preparations of the report, negotiations with the owners both of the Buck Norred Ranch and the Rossett Ranch were completed and these parcels became part of the Park.
The widely varying character of appropriate uses for the Park suggests continued and potential conflict unless the Park is improved. Growth projected in the Almaden Valley area will probably impact the Park due to increased demand for recreational areas, and facilities. Given the wide range of character of some of these uses (e.g., equestrian activities and trail riding, mountain bike riding, long distance or cross country running, hiking, jogging, walking) and the distribution of sensitive resources within the Park, the potential for increasing negative impacts on the environment is relatively strong. Recreational centers, or concentration on trail uses, must be carefully located and designed reflecting a knowledge of the character of the use and the visual and environmental capacity of the land. Acclamation of additional land, (for purposes of increased recreational opportunities, revenues and open space acreage for environmental and visual protection) is one solution and should be a high priority for the Park.

Chapter VIII, "MASTERPLAN", identifies proposed new and improved recreational areas and trails (along with preliminary cost estimates), maintenance and management concepts as well as future acquisition/Park expansion possibilities. The specific improvements are described in six sections. The first two sections describe recreational nodes and trails in detail with references to implementation over three phases. The next two sections address the operations and maintenance, and management aspects. Future acquisitions are briefly discussed in the next section, establishing priorities for potential expansion. The final section presents a preliminary cost estimate summary, by phases, and by item for each recreation center and trail. With the ultimate implementation of the Master Plan, the Park will offer five major recreation nodes with potential for revenue generation, 21 named trails covering over 20 miles, two major entrances, and several smaller recreation centers (often simply a trail stop with interpretive signage) throughout the Park. Improvements are scheduled for implementation over three phases; each phase roughly corresponding to a 5 to 10 year period.

Generally Phase 1 improvements, concentrate on major recreation nodes (including Joce-Bernal Ranch and Buck Notred Ranch) and associated trails. In addition, the current Bernal Entry should be developed as a gateway in this phase together with the well used, and highly visible, Pueblo Picnic Area. It is critically important that the public is provided with visible site improvements prior to the imposition of fees at the entry. In the next two phases, two other major recreation nodes are scheduled for development, notably the Rosetto Ranch in Phase 2. Trail development in these phases focuses on rehabilitating existing routes to better accommodate the proposed use designations.

Trail improvements are related to two principal use designations: multi-use and selective use. Multi-use trails permit all users, selective-use trails have restrictions on one or more user group. Only a few particular selective-use trails have been identified as pedestrian-only. A whole access designation is applied under some circumstances to both trail types to enable disabled and wheelchair bound visitors access around the Pueblo Picnic Area. Test trails have been identified which would be monitored to evaluate compatibility and feasibility of shared uses. Ultimately, this data will be used to resolve issues, refine trail designations and to minimize both environmental and user conflicts.

This report proposes the establishment of eight Resource Management Zones within which respective management policies and maintenance operations might take place. The establishment of a combined ranger or operations center/corporation yard is proposed for the Rosetto Ranch in Phase 2. An interim operations center/corporation yard should be developed in Phase 1 at the Notred Ranch. A full time staff assigned exclusively to Santa Teresa Park is required in Phase 1. In addition to facilitating operations and maintenance of the improvements a full-time ranger can improve public relations with the Park's neighbors. By Phase 5, staffing levels should increase to a total of two full-time equivalent ranges, 2.5 full-time maintenance and 2 seasonal personnel.

From a circulation standpoint, no through (north-south) public vehicular traffic will be allowed between the Santa Clara and Almaden Valleys. A controlled entry gateway should be established at both the northern (Bernal Road) and southern (Rosetto Ranch) entry points in
the Park. Both gateways should include a special kiosk and gate complex that would 1) collect
day-use entry fees, and 2) control access when the Park is closed. The Bernal Entry Gateway
should be implemented in Phase 1. It is very important that its configuration is coordinated
and agreed upon by those entities/operations (IBM and the Muriel Wright Rehabilitation
Center) that require 24-hour access. The Rosetito Entry Gateway should be implemented in
Phase 2, concurrently with the improvements for the Rosetto Ranch. No general roadway
improvements, other than the entry gateways and road-trail crossings, are necessary for Bernal
Road. The roadway access to Rosetto Ranch and interior access roads and parking to the
recreation nodes will need to be developed, generally modifying existing roads or tracks. The
increased public use of the new facility in the Park is not expected to substantially increase
nor negatively impact the vehicular capacity (as defined by the City of San Jose's street
classifications of the existing roads. Adjacent parcels which may be impacted or impact the
Park environment significantly are discussed in terms of their potential for acquisition or in
relation to possible scenic or trail easements. They are listed by priority, without a direct
relationship to the phasing.

Finally, a preliminary master plan level cost estimate is provided listing improvements to each
recreation node and trail with 1991 unit prices. The total cost, irrespective of phasing, for
all improvements is approximately $9.21 million in 1991 dollars.
II. INTRODUCTION AND BACKGROUND INFORMATION
II. INTRODUCTION AND BACKGROUND INFORMATION

A. LOCATION

The Almaden and Santa Clara Valleys are separated by the Santa Teresa Ridge within which Santa Teresa Park is located. The Park is situated towards the southern end of the Santa Teresa ridge between Bernal Road in the Santa Clara Valley and Forni Road off McKean Boulevard in the Almaden Valley. The Park lies approximately 10 miles south of downtown San Jose. The major access into the Park is provided from an extension of Bernal Road from the Santa Clara Valley on the north, along a two lane paved road. The Park’s 1463 acres of largely steep hilly terrain vary in elevation from about 400 feet at the Santa Teresa public golf course to nearly 1,100 feet at Coyote Peak which is the Park’s highest feature Bernal Hill just outside the western periphery of the Park is at an elevation of approximately 1000 feet. The steep slopes of Santa Teresa Ridge, made up predominantly of the Bernal formation, exceed 30% over much of its length. The Park’s unique location in the South Bay area, as well as its geologic formations, support a variety of wildlife species and is characterized by oak forests, bare serpent rock outcropings, seasonal boggy areas, arroyos, year-round creeks, native grasslands and seasonal wetlands and riparian habitats. Currently, the most popular recreational gathering spot other than the golf course is the Pueblo group picnic area located at the center of the Park. The two lane paved county road connection to Bernal Road provides access from the north. Other important Master Plan areas include the Muriel Wright Residential Center adjacent to the Pueblo area, the Norred and Rossetto ranches and the historic Joice-Bernal Ranch. The Joice-Bernal Ranch structures and the nearby historic Santa Teresa Springs are located at the northwest periphery of the Park and the Rossetto Ranch on the south abuts the Almaden Valley floor.
B. PARK HISTORY

Although some of the land constituting the Park officially became a County park in 1958, the 466 acre Fitzgerald Ranch was originally purchased in 1954 with plans to provide a jai-alai court site. By 1960 the County contracted with a golf course designer, purchased an additional 56 acres from the Goss family and began plans to construct the 18 hole Santa Teresa public golf course located in the northern portion of the current Park. The Muriel Wright Residential Center was born of the 156 acre condensation of the Martin property in 1961 and is now located in the center of the Park on a hill above the Pueblo picnic area. In the 60's and 70's a thirty thousand gallon storage tank located above the Muriel Wright Residential Center provided water for the ranch and the Pueblo area from wells located in the golf course. By 1985, an additional thirty thousand gallon water tank was installed adjacent to the Muriel Wright Residential Center and Santa Teresa Parks' water supply was connected to the San Jose Water Company system. In addition 346 acres were purchased from the Gomes family by Santa Clara County in 1973 just west of the previously acquired Martin property. This completed the purchase of the gently sloping center of the Park known as the Pueblo area. The Joice family, previous owners of the historic Joice Ranch north of the Park, sold approximately 100 acres to IBM Corporation as part of the proposed development of the Almaden Research Center (ARC) in the early 1980's. By 1986 the historic buildings and most of the Joice property was obtained from IBM by the County of Santa Clara. A thirty acre recreational and open space easement was also granted by IBM as a condition of development of ARC. The Bernal Road extension, a county road, was also constructed at this time for access through the Park to the new IBM site.

In the complex exchange of property between IBM and the County, the Corporation relocated and constructed a two lane extension of Bernal Road for the County up and into its Almaden facility from Santa Clara Valley at the base of the Santa Teresa Hills.

More recently the County completed negotiations with the Wilets family and purchased a 217 acre parcel to the south of Coyote Peak. With the addition of the Wilets property, the 44 acre Lagunita property becomes entirely enclosed within Park property. The Buck Norred and Rosetto Ranches were also purchased during the studies for this report.

Past Uses and Planning Efforts

The history of planning efforts within Santa Teresa Park includes the plans drawn up by County staff in 1975 outlining proposals for the Pueblo area and adjacent hiking and equestrian trails. The plan included several acres of irrigated turf, planting of non-native trees, and both active and passive recreation areas. A lake and brook aligned with the current fresh water seepage (west of the large parking area) were also indicated on plans for Pueblo area. The lake was never built, but in 1976, engineering consultants investigated the feasibility of a dam and reservoir downstream of the seepage area and astride the Park’s common boundary with the Rosetto Ranch. Due largely to adverse topography and limited reservoir capacity, the idea was not considered cost-effective and was abandoned. Scheduled operation of the turf irrigation systems has been discontinued since 1983 and the arid and hot nature of the Pueblo area in summer months has resulted in a noticeable decline of public use there. Equestrian trails proposed in 1963 connected the Buck Norred Ranch facility with the Pueblo area. The current alignment of the loop road and the exotic plantings surrounding the Pueblo area reflects these planning efforts. Prior to the construction of the Pueblo group picnic area, the White Oak group picnic area (adjacent to the pond above the golf course) was the site of extensive group picnicking and recreation by resident in nearby neighborhoods. A comfort station and a number of picnic benches were located at the White Oak group picnic area which must have been a pleasurable space considering its proximity to shade and vegetation. This site was converted to a driving range with

CHAPTER II

- 5 -
expansion of the golf course. There has been a drowning accident in the nearby pond where swimming has always been prohibited.

Recently, County Parks developed a Mountain Bicycle Policy as a response to the increasing popularity of mountain biking and the demand for incorporation of mountain bike trails into the County Parks system. Santa Teresa Park was selected by staff and a task force (comprised of trail users and interest groups) as one of seven of the twenty-four County Parks for mountain bike trail use. The policy was approved by the Board of Supervisors and designated trails have since been dedicated including one in Santa Teresa Park. The selection of parks for mountain bike trail designation was based on dividing the County into four regions with each region providing at least one mountain bike recreational area.
III. COUNTY GOALS
III. COUNTY GOALS

A. PRESERVATION 2020 REPORT

While the relationship of Santa Teresa Park to the entire County system is generally illustrated in the County's General Plan, it is useful to review the fundamental reasons for such a system. The report of the Preservation 2020 Task Force (1987) entitled "Open Space Preservation: A Program for Santa Clara County", provides a good starting point.

In Chapter 1 "Why Preserve Open Space?", undeveloped open space is looked upon as providing functional benefits for the community at large, meaning current and future generations. These include:

- Provision of space for recreation
- Control of urban sprawl
- Definition of urban form
- Protection of viewsheds and scenic vistas
- Protection of watershed lands
- Avoidance of hazardous areas
- Preservation of valuable natural areas and rare and endangered plants and animals
- Preservation or enhancement of cultural resources

While the community may look to a variety of sources to provide for the physical system to accomplish these goals, the relative level of responsibility will vary from region to region. In Santa Clara County, the City of San Jose, the Mid-Peninsula Regional Open Space District, the State of California, and the Federal Government are among the major players who share this responsibility with the County.

In terms of land mass, the Federal Government, with its San Francisco Bay National Wildlife Refuge and the State with Henry Coe State Park and Nisene Marks State Park, among others, provide access to areas or resources of national and statewide significance. Those lands under the Mid-Peninsula Open Space District are clustered in the Santa Cruz Mountains, providing recreation for San Mateo as well as Santa Clara Counties.

The County is left with the very important role of providing for parks of County-wide significance, for the linkages between these and the Park and open space areas of the other jurisdictions. It's focus is the important interface zone between the urbanized and incorporated areas and their unincorporated surroundings. Because of the pressures of increasing population and the intensity of urban impacts on park lands (including the price of open space lands), the County's role could be seen as among the more difficult and challenging.

The Santa Teresa Ridge covers an area of approximately 7,500 acres. The Park shares characteristics of many other County parks in that it is situated in steep foothill and ridge areas. Because of steepness, presence of landslides, and difficulty of access, the ridge has remained relatively open even while the urbanization has extended entirely across the flat valley plain to the base of these steep grassy and wooded slopes. This situation is typical and occurs directly to the north of Santa Teresa Park where urbanization has essentially provided a complete blanket southwest of Highway 101 to the base of the Santa Teresa Park hills. To the south of the ridge, and to the west in the Almaden Valley, urbanization has extended as another solid blanket as far as Harry Road and is destined to continue primarily as residential urbanization, in a southeasterly direction up to the Calero Reservoir foothills. This area is currently under County jurisdiction but has been identified as the Almaden Valley Urban Preserve by the City.

CHAPTER III
of San Jose and will some day be annexed into the City. Given these existing and inevitable conditions, Santa Teresa Park fulfills a very important role mentioned in the 2020 Task Force report.

Mentioning that "the most important benefits we derive from open space are of a personal nature", the 2020 report points out the basic reason for the proximity of undeveloped open areas to urban areas as follows: "...the sense of relief a tired commuter feels upon coming home and staring out the window at the green hills surrounding the valley." The function of these rugged hills is to provide the individual with at once a sense of orientation and a sense of scale (the world does not consist of totally unlimited urban sprawl) and the sense of security that these green hills are physically accessible now and into the future. Santa Teresa Park's role in this important function is underscored in Chapter 4 (Priorities for Open Space Preservation) of the 2020 report. It is given top ranking in terms of access and location, and at the same time its vulnerability to development. The report points out the important role in connecting Calero and New Almaden Quicksilver County Parks with the Coyote Creek chain and fishing lakes not far to the north; this could be accomplished by completion of the Bay Area Ridge Trail (see Figure 3).

The report also refers to the important role of Santa Teresa County Park in helping to create linkages between the Coyote Creek and Los Altositos Calero Creek Chain.

Under the Open Space Acquisition priorities, the Park is listed as having the following resources identified for protection:

- View shed
- Buffer, open space serves as a border to urbanization
- Archeological resources
- Historical sites
- Natural habitats of State and County designation
B. COUNTY GENERAL PLAN

The County’s General Plan, amended December 15, 1981, accompanies the Regional Park Trail and Scenic Highway element published in October of that year. In scenic terms Santa Teresa Park clearly fulfills many of the County’s goals and criteria for a park or facility of county-wide interest. Relevant general goals include:

- Preservation of the County’s cultural, historical, and archeological and natural heritage
- “An element in an integrated system of accessible wilderness regional parks...and trails and recreation facilities...”

While referring to the great diversity of scenic beauty and the preservation of this "environmental heritage", there is recognition of the importance of having such natural settings close to urban areas for citizens to "relax and enjoy closer contact with nature". These areas must also be within close driving or transit distance, contribute to a balanced geographical distribution of open spaces and give "structure and livability to the urban community”. It should also provide opportunities for bicycling, hiking, equestrian use, and designated marked historic trails. Finally the County would attempt to coordinate its public works improvements to enhance hiking, bicycling, and recreational corridors where they form linkages between County parks.

In an attachment to the General Plan, the Board of Supervisors passed a series of County goals and policies relating to the natural and recreational environment on November 3, 1981. It included an important glossary which defined such key phrases as “functional value of the natural environment”, "ecological value of the natural environment", and historic resources. County regional parks are defined as "regional parks and recreation which are areas that have County wide significance". "They are generally larger than City parks, possess special or unique resources or facilities, occupy sites in particular, natural beauty, and serve residents throughout the county.”

The plan, in distinguishing community goals from County government policies, points out that the County government should protect open space lands for these functional, ecological, and scenic values (mentioned earlier), encouraging the use of open space land consistent with care and management of a fragile ecological environment and equally fragile heritage resources such as historic and archaeologically significant sites.

The high skyline silhouette of Coyote Peak, the ridges toward the north as well as the steep slopes often exceeding 30% which rise abruptly from the valley floor are the essential visual elements which can be associated with the Park’s role in the County wide system. While these steep flanks are well defined when seen from Almaden Valley to the south, the ridgetops and peaks are no less important. The treatment of these ridges and peaks as well as their steep flanks is critical to the Park’s function in a sub-regional, visual sense, and thus must be given careful consideration in the preparation of the Master Plan.
IV. MASTER PLAN GOALS AND OBJECTIVES
IV. MASTER PLAN GOALS AND OBJECTIVES

After public presentation of a detailed set of preliminary goals the Task Force agreed on the following simplified version. Subsequent modifications have been made to goals 7,9 and 12.

Introduction

Basic County-wide goals for Parks and Open Space are described in the County General Plan, Amended 12/15/11 and the 2020 Preservation Plan. They can be summarized as follows:

- Preservation of the County’s Cultural, Historical, Archaeological, and Natural Heritage
- County Parks Should be Integral Parts of a System of Accessible Wilderness, Regional Parks, Trails, and Recreational Facilities

Specific goals which apply to Santa Teresa Park can be derived from these basic “building blocks”. The goals are of two kinds; those relating to the uses (present or proposed) to which the site could be put. There is no implied importance in the order of the goals listed below:

Goal 1  Maintain county-wide significance.

Goal 2  Use open space to help define urban form.

Goal 3  The Park’s unique visual character, views and vistas should be protected and enhanced.

Goal 4  Natural resources should be protected and/or enhanced.

Goal 5  Historic/pre-historic resources should be protected and enhanced.

Goal 6  Provide recreational facilities reflecting community needs and the unique constraints and opportunities of the Park.

Goal 7  Locate and design uses and facilities to avoid sensitive or hazardous areas.

Goal 8  Watershed functions should be protected and enhanced.

Goal 9  Where feasible, the Park should be accessible to all persons including the physically disabled.

Goal 10  Insure integration with county-wide trail systems.

Goal 11  Provide for maintenance and security approaches and facilities matching current and projected County Park Department capacities.

Goal 12  Seek to provide reasonable security from all types of unauthorised entry to the Park and for its neighbors.

Goal 13  Support the purchase of parcels and/or easements which may optimize the future potential; evolving from the master plan.
V. INVENTORY AND ANALYSIS
SANTA TERESA COUNTY PARK
FINAL MASTER PLAN REPORT

V. INVENTORY AND ANALYSIS

A. EXISTING URBANIZATION AND FUTURE GROWTH

1. Pertinent Urban Characteristics

The majority of urban forms in the Santa Teresa Park area are present along the northern perimeter of Santa Teresa Hills. A panoramic view north and west from the Park reveals seemingly contiguous urbanization across the Santa Clara Valley floor all the way to the foothills of the Mount Hamilton Range (almost three miles to the north). The Mount Hamilton foothills serve as the same important backdrop to urbanization at Santa Teresa Park and the Santa Teresa Hills will for both the current residents of the South Santa Clara and future residents of the Almaden Valley.

Further urbanization of the Santa Clara Valley north of the Park will seem much less noticeable than the urbanization planned for the lower Almaden Valley southeast of Santa Teresa Park.

The 4200 dwelling units ultimately planned for the Almaden Valley will begin to replace the rural character currently typified there by grazing of pasture lands, ranchettes with equestrian stables, and small farms and orchards. The proximity of this planned residential community adjacent to the Park reinforces the responsibility of local planners to ensure sensitive planning and acquisition policies for open space. The growth plan is part of the annexation criteria included in the South Almaden Valley Urban Reserve Report and allows the City of San Jose to phase growth based on available facilities and services to support future development. The core of the urban reserve is located southeast of the line created by Mockingbird Hill Road/McKean Road/Hurry Road.

Evidence of encroaching urbanization on the valuable open space provided by the Santa Teresa Hills is already present in the Almaden Valley on the southwest facing slopes west of Santa Teresa Park. Although the lot size requirements provide for development of lots in fairly large parcels, the developments are sized conspicuously, sometimes on the ridgeline with large two or three story houses.

The following map and chart indicate current County and City of San Jose zoning adjacent to and surrounding the Park.

CHAPTER V
- 11 -
ZONING CATEGORIES

City of San Jose Zoning

A
Field & Truck Crops
Plant Propagation
Dairy & Livestock

R-1:B-5
One Family Dwellings
Public Elementary & High School (1 acre lot size)

R-1:B-6
One Family Dwellings
Public Elementary & High School (6,000 sq ft lot size)

R-1:B-8
One Family Dwellings
Public Elementary & High School (8,000 sq ft lot size)

Industrial
General Manufacturing & Office

PD
Planned Development*

County of Santa Clara Zoning

P
Regional Parks:

H
Hillsides: agricultural, wildlife refuge parks, low intensity residential development

RR
Rural Residential Areas

OR
Open Space Reserve: agricultural, open space

* The PD category can apply to other zones as an overlay, since it represents an approach to implementing a land use zone. Thus a A(FD), which applies to the IBM Almaden parcel in San Jose, means a planned development approach would be used to achieve what is predominantly an agricultural or open space use.

FIG. 4

CHAPTER V

- 12 -
B. RESOURCE VALUES

1. View and Site Character

The County of Santa Clara’s goal in preserving open space is not limited to physical recreation opportunities, but also seeks to fulfill the important task of providing visual relief from the adjacent urbanized valley floors. Santa Teresa Park in particular will serve an important role in providing County-wide visual linkage between the Park and the open space surrounding the Almaden and Santa Clara Valleys. Santa Teresa Park shares the characteristic steep foothills found throughout the Santa Teresa Hills. Considering the existing and inevitable proximity of urbanization, both north and south of the Park, the view of the study area’s steep and highly visible flanks and ridgelines have become increasingly critical.

The quality of views afforded by the Santa Teresa Hills are typified by the yet relatively undisturbed ridges and north facing flanks of the Park. The northwest and southeast trending Santa Teresa Hills become an important visual back drop to the residents of the Santa Clara and Almaden Valleys.

The Park’s two highest and most recognizable peaks roughly define the southeast and southwest boundaries of the Park. Coyote Peak, elevation 1,110 feet is the highest peak and skirts the southeast property line. The soils and wind factors steep the property relatively void of vegetation. Bernal Hill, elevation 1,000 feet, is located just west of the Park, skirting the IBM property line. These two peaks generally define a saddle which form the most visited and developed area of the Park, the Pueblo picnic area and Muriel Wright Residential Center.

Views of the Park may vary in character depending on one’s orientation in respect to distance from the Park. Views from the Almaden Valley capture the relatively gently sloping, less vegetated southerly facing slopes. Due to the greater population density of the Santa Clara Valley, the majority of Park’s visibility from surrounding development is from the north.

Visible from the surrounding urbanized valleys are three areas within the Park with evidence of man-made impacts. Currently, three areas of the Park reveal man-made traces to the surrounding valleys. The form and elevation of Coyote Peak itself has been altered by grading efforts and has resulted in a “mesa” like silhouette. In addition to this altered form, a number of radio and television transmission towers complicate the peak’s appearance from nearly all vantage points.

The Muriel Wright Residential Center and its two water tanks are visible from the north at various angles from the Santa Clara Valley. The I.B.M. Almaden Research facility west of the Park is accessed by a 30 foot wide asphalt paved extension of Bernal Road connecting Bernal Road on the north which begins at the golf course and is visible up to the saddle of the Park. Also visible are other ad-hoc paths and trails throughout the Park.

The view of the Park from the Almaden Valley reveals less development. Aside from the neighborhood west of the study area, on the south facing Santa Teresa Hills slope, there is evidence of encroaching development. The presence of the Almaden IBM facility is also more prevalent when viewed from the Almaden Valley. It can also be anticipated that the Calero Estates sub-division south of the study area will have certain visual impacts on Almaden Valley visitors and residents as well as Santa Teresa Park users.

CHAPTER V
- 13 -
A more generalized assessment of the views afforded within the study area reveals a remarkable variety of panoramic vistas as well as some intimate, secluded spaces of various sizes, shapes and character.

The Pueblo area, by contrast, has a more developed feeling brought on by the existence of the paved access and parking, comfort station, turf, other non-native plantings, park benches, barbecue, and trash receptacles. The unique characteristics shared by the Pueblo area and a few other more linear zones in the Park is their visual seclusion from the adjacent urbanized valley floor as well as the Almaden IBM facility. It is in this way these "shelter" zones provide the visitors of these spaces with uninterrupted views of the Santa Teresa Hills and a rare glimpse at undisturbed environmental heritage. (See "Shelter Zone" map, Figure 25)

Another secluded zone exists in the south portion of the Park in the newly acquired Wilkes Property's riparian zone. Although this can be considered an extension of the secluded visual characteristics of the Pueblo area, the relatively narrow dimension and high quality of riparian habitat of this zone gives it a unique quality within the study area. This linear system of visually "sheltered" zones meanders south westward through to a confluence of the two zones.

Although the canyon and hills of the Rosetta Property about the lower Almaden Valley, it maintains this visually secluded character through most of the site and offers the visitor yet another unique historical setting. (See "Existing Recreation Facilities and Uses" map.)

The 360 degree panoramic view from Coyote Peak illustrates the Park's relationship to Santa Teresa Ridge, the Almaden and Santa Clara Valleys, and on a clear day, the cities of San Jose, San Francisco and Oakland. Santa Teresa Park's relationship to a County and Bay Area park system is also most apparent along the Coyote Peak ridge. Another notable highpoint named Bernal Hill by this study team is found at the west edge of the Santa Teresa Park boundary line, above the IBM Almaden facility. Bernal Hill begins the final, gradual descent of the northwest trending Santa Teresa Hills ridge. Although less densely vegetated than the slopes above the golf course, the ridge along Bernal Hill offers long views (often framed by mature oak) of the neighboring valleys.

2. Architectural Resources

a. The architectural and constructed resources include those of the Joice Ranch, Buck Nudd Ranch, the Muelert Wright Residential Center and miscellaneous utilitarian structures such as the Western Union structure (not owned by the County) and the golf course buildings. Structures outside of the existing Park boundary but close enough to be of particular interest (in cases of established County interest in acquisition), are the Rosetta Ranch buildings, the Pyak residence, and the Bonetti residence.

By far the largest emphasis is placed on the Joice Ranch because of recent plans to renovate the complex and establish a "living history farm" project. An agreement between the County, the University of California Cooperative Extension and 4-H was discussed but not concluded. A study was prepared by the architectural firm of Alton and David Lee. Their report is included in the appendix.

b. Joice Ranch: According to slope stability maps prepared by Earth Technology, the ranch house is located either on or at the base of an
existing landslide. Even though the structure has stood since 1860, environmental changes, such as tectonic movement may have occurred and are likely to occur in the future.

The Joie site consists of the ranch house, a caretaker's house, two barns and outbuildings. The barns and outbuildings were not considered in the study. In Mr. Lee's opinion, the caretaker's house is of no significant architectural or historic merit, is in need of extensive repair but could be used as a residence. The Department is currently doing a study regarding restoration of this building. The ranch house itself, which has undergone many changes in the 130 years since it was built, was determined to be lacking in outstanding merit. The house is, according to Lee, significant not for its visual qualities, but primarily because it is "all that remains of the buildings of Rancho Santa Teresa." The question of what time period should be selected as representative relative to restoration of the house remains to be answered. Its historic significance however (as confirmed by its designation by the County Historical Heritage Commission) is of course unchallenged. While the one story wooden building falls far below current construction standards, it could be restored in order to meet the standard for historic structures.

Lee notes the current floor plan does not lend itself to gatherings because of the small rooms. Entirely new electrical lighting, heating and plumbing systems would have to be installed for public use. If it were to be used for gatherings, the internal structure would have to be altered significantly in order to strengthen the building to handle the loads associated with larger rooms. Due to these limitations Lee suggests two alternative uses which better fit the current floor plan. One is as a museum based on a theme of 19th century California ranch houses and, or secondly, to simply restore as a private residence. It could also be considered for a ranger office or residence.

c. The Muriel Wright Residential Center: Also known as the Girl's Ranch, this facility is operated by the County Probation Department as a juvenile detention facility for young women. The single story structure, of 1950's vintage, is by today's standards of little architectural merit. There are no known plans for expansion, and it is fortunately relatively well hidden from the public and from the viewshed of the San Jose Valley to the North. The twin wooden water tanks at the top of the hill, adjacent to the Center, are unnoticed by vegetation and can be readily seen from the valley floor.

d. Golf Course: The golf course structures are low pitch roofed structures which are unobtrusive and which blend well with the surrounding golf course environment. The golf course has two significant structures. The old clubhouse, now called the banquet facility was built on a hill overlooking the course in the 1950's when the golf course was first built. When the course was leased as a concession, the concessionaire made a number of substantial improvements including the construction of a new clubhouse, pro shop and restaurant. Since the new clubhouse appears to be adequate for the concessionaire's needs further consideration in this study is unnecessary. There are no known plans for significant expansion of such structures.

CHAPTER V
- 15 -
g. The Buck Norred Facility: The County has conducted extensive and in-depth studies of this facility during various phases of negotiation with the owners over the past few years. Few of the buildings are adequate from a structural standpoint and many of them are open air barn-like structures associated with horse corrals and the like. The relative cost of rehabilitation of these would depend on more detailed site studies. While the main ranch house has some "turn of the century" charm, it lacks adequate foundations as evidenced by sinking floors and twisted and skewed walls. Up to fifteen horses were stabled on site when Mr. Norred operated a horse rental string.

3. Prehistoric/Pictographic Resources

The cultural resources associated with the lands of Santa Teresa Park span both its boundaries and nearly 5,000 years. The first identified inhabitants of the area were the Ohlone Indians. These Native Americans are believed to have established a number of village sites within the study area as evidenced by scattered pre-historic traces throughout the Park.

They include permanent and semi-permanent habitation sites which usually exhibit evidence of organic midden and often include human burial remains. Artifacts noted during surveys of the area include grinding stones a quartzite strapper, chert flakes, and human bone fragments. It is believed one area was a relatively large village site.

An area east of the golf course is known to be the site of another Native American habitation site as indicated by adjacent bedrock mortars and petroglyphs. Bedrock mortars and other milling features found throughout the study area are both associated with pre-historic habitation and camp sites. The dark soil, lithic tools and fire affected rocks are all evidence of the temporary pre-historic campsite at the west portion of the Hunter’s Property. Petroglyph sites may be isolated or associated with habitation and camp sites and one such petroglyph is located at the base of the Santa Teresa Park Road west of the golf course. Two more petroglyph sites are located below the west peak (Bernal Hill) of the study area and are part of a large complex of midden and milling sites along the entire ridge of the Santa Teresa Hills. Another complex of
bedrock mortars and petroglyphic cupules have been discovered east of Bernal Hill in a small saddle near the eastern boundary of the Hunter property.

Two unrecorded pre-historic habitation sites were also observed in the course of this resource study. One was located at the confluence of the riparian area and the other is located near the large parking area and corral within the pueblo area. Pre-historic native American burial sites have also been identified within the study areas including the bones uncovered during excavation in the area (then operated by the Fortini) during the 1920’s. Archival reports indicate various bull mortars and pestles within the Rossetto Canyon and identify that area as archaeologically sensitive in general. Another native American burial was reportedly found near the first tee of the golf course during utility trenching activities. Perhaps the largest pre-historic burial component within the study area is found at the base of the Santa Teresa spring and extends northward from there. Over 40 native American burials, mortars, chipped lithics, and other evidence has been recovered during several archaeological expeditions since 1973.

Historic Traces: The recorded history of the area begins with the Don Jose Joaquin Bernal who had arrived with the De Anza expedition to California in 1776. Not until 1826 did Bernal settle near the Santa Teresa Springs area. Bernal eventually petitioned the governor for a “league or less” of land in 1834 and was granted 9,647 acres in July of that year.

The Santa Teresa Ranch was constructed near the present intersection of Manila and Curie Drives. The Rancho Santa Teresa boundaries were reconfigured a number of times over the next 34 years and in 1856 the US District Court reformed the land grant of 1834 to include 4,460 acres. By 1868 the Land Commission divided the Bernal land again among several different people.

Carlos Gullace married into the Bernal family, inherited the remaining Bernal Rancho and constructed the structures now called the Joice Ranch in the late 1860’s. His descendants occupied the ranch for several generations which eventually became the property of Susan Gullace Joice whose family continued to operate the cattle ranch into the 1970’s.

At the turn of the century, the State Mining Bureau established mercury mine operations just below the Hunter property ridge. Mining operations included a 40 ton furnace and several tunnels into the hill totaling nearly 2,000 feet. The Santa Teresa quicksilver Mining Company was established and had produced a great deal of mercury by 1918. Mining operations were abandoned by 1921, but brick and concrete structures associated with mining operations still exist near the Cottle Road extension adjacent to the present P G & E right-of-way.

The Bernal Mine is another historic mining resource in the study area. This site includes an adit, cement footings and a mine shaft all located on the north side of the hills above the Buck Norred cabins. It is speculated that an overhead tram used in the transportation of ore may be detected by the four concrete footings located in the area. In addition, an old wagon route coincides with the Santa Teresa Park Mine Trail which was probably the route used to transport ore and mercury down to the railway in the Almaden Valley.

A cobble quarry of unknown function, possibly for stone fence construction or mining exploration is located adjacent to the Santa Teresa Park Road west of the Pueblo meadow area. Three nearby stone fence sections may have been assembled from that quarry. Two of the sections are associated with the

CHAPTER V

- 17 -
Rosetto property south of the Park. These stone fences are primarily constructed of un-mortared field stone and are typical of fence structures located elsewhere in Santa Clara Valley, Central and Northern California. It is assumed that these were constructed during the post-rancho period when large land grants were being sub-divided. Indian, Mexican, and Chinese labor were typically used to construct these types of stone fences during a time when labor and material was scarce and expensive. The other stone fence section associated with the area and the immigrant labor is located along the eastern boundary of the Rosetto property.

Vegetation and Wildlife

A diverse range of wildlife habitats and plant communities are found within Santa Teresa Park study limits and adjacent areas. The study area includes a varied topography, and a diversity of habitats in a relatively undisturbed setting. Birds are the largest group of vertebrate species found in the Park. Bird populations differ from season to season with the park setting. As a result of migratory and local movements as well as other changing habitat requirements. The Park’s indigenous plant communities and its current light public use contribute to relatively high levels of wildlife activity, however, residential development along the northern study area boundary is beginning to impact wildlife habitat within the study area.

The following general discussion deals with representative members of wildlife groups and plant communities based on the survey by the Habitat Restoration Group (1990).

Existing Plant Community/Habitats: The north facing slopes of Santa Teresa Park support mixed oak woodlands. The slopes above the Santa Teresa golf course encompass many drainages that experience seasonal run-off typically associated with this community. They include a dense inventory of riparian vegetation: oaks, California bay, Buckeyes, Blue Elderberry and Coffeeberry. Within the oak woodland is a sparse understory of shrubs including: Snow Berry, Poison Oak, and Blackberry. Non-native grasses dominate this understory and share this micro-climate with Miner’s Lettuce, Bedstraw and Mugwort. A wide variety of wildlife species use these woodland habitats and the value of this habitat varies depending on the diversity of the habitat structure present in any given community. The proximity of the more mesic riparian forests within these woodlands provide habitat for amphibians such as the California Slender Salamander. The presence of downed trees and other accumulations of dead plant materials are equally important habitat components for the Tiger Salamander and other amphibians in creating suitable micro-climates.

The presence of small mammals and insects is important foraging resources for reptiles found in the study area. Amphibians, small animals, and insects inhabiting the oak woodlands are important food sources for reptiles. The Western Fence Lizard and a variety of snakes are common in these habitats. A variety of birds find nesting, forage and important cover within these oak woodlands. Woodpeckers, as well as other cavity nesting birds, find mature oaks an important resource. Pasterine bird (song bird) species may occur in these oak woodlands including the California Quail, Scrub Jay, Nuttall’s Woodpecker, Chestnut-backed Chickadee, Phase Tittermouse, Western Bluebird, and the Wild Turkey. The Great Horned Owl, Western Screech Owl, Red-tailed Hawk, Cooper’s Hawk, and Sharp-shinned Hawk are among several raptors expected to occur within the oak woodland as well. Black Shouldered Kites, and vultures could be associated with oak woodlands and/or grasslands but were not confirmed by Habitat Resource Group.

CHAPTER V
- 18 -
Many mammal species associated with the oak woodlands use the understory for den sites and escape cover. The oak woodlands also provide important food sources such as seeds, nuts and fruits for those species. The Western Gray Squirrel, Virginia Opossum, Striped Skunk, and Black-tailed small Deer are common mammal species in this habitat. Wild pig and a few bat species may also find forage in this habitat. One neighbor and frequent user of Park trails reported seeing recently a mountain lion and two kittens near Coyote Peak.

The majority of hillsides surrounding the Pueblo area and the Santa Teresa Park Road are characterized by non-native grasslands, the dominant plant community within the study area. Lupine, soaproot, blue dicks and California Buttercup are characteristic wildflowers associated with this community. The grasses and forbs are an important element for both grazivorous and insectivorous wildlife species attracted by these host grasses. Raptorous birds and small mammal predators commonly found in this habitat are coyote, fox, hawks, crows, and eagles. The dry conditions of this habitat make this area largely unsuitable for amphibian use.

In general, the most actively used wildlife habitats of non-native grasslands occur adjacent to other plant communities (ecotones). The Western Fence Lizard may be the most numerous of reptilian species found in the grasslands. Typically, tall grasses and roden burrows provide an excellent refuge for reptilian species. Extensive use by raptorous, grazivorous, and certain insectivorous birds is to be expected throughout the Park’s grasslands. Small mammal including the Long-tailed Vole, Black-tailed Deer and the Western Harvest Mouse are also common within these areas.

Serpentine bunchgrass communities associated with serpentine soils of the Bernal Formation are found primarily in the southern half of the Park between the Pueblo area and the southern park boundary, and the north facing slopes above the Joice Ranch. The serpentine bunchgrass community is associated with a limited distribution of unique plant species subsequently considered rare, threatened or endangered. Some of the unique wildflowers species associated with this community include Streptanthus (jewel flower), tidy tip, tarweed, goldfields, brodiaea, and columbine. Trees may occur within serpentine soils, however they are apt to be somewhat dwarfed. Some of the dominant plant species within the serpentine bunchgrass community include melica, wild onion, common jewel flower, along with coffeeberry, marramint and sage. The serpentine bunchgrass of the Joice Ranch is a similar habitat to that of the Joice Ranch grassland and even enhanced due to its unique characteristics and plant species distribution. The rock outcroppings associated with the host serpentine soils may also provide valuable habitat for some grassland wildlife species. In fact, the host plant for the Checkerspot Butterfly listed on the federally endangered list is associated with serpentine bunchgrass habitat. The reptiles associated with serpentine bunchgrass are similar in species and number to those found in other grasslands. Reptile species commonly found on rock outcroppings which provide sunning, cover, and territorial display sites. These rock outcroppings also provide perching, roosting and/or nest sites for a variety of bird species including the Kestrel, Horned Lark, Grasshopper Sparrow, and Common Poorwill. The serpentine bunchgrass habitat found in Santa Teresa Park is of moderate value to fossorial mammal species due to the less friable nature of the soils.

The Diablian Sage Scrub, usually associated with steep rocky south and east facing slopes, is distributed throughout the study area. This plant community consists of shrubs and herb often forming dense stand of California Sage, Black Coffeeberry Sage, Poison Oak, Coyote Brush, Monkey Flower, and Wooly

CHAPTER V

- 19 -
Sunflower. Diablian Sage Scrub lands, as located throughout the study area, including one above the Buck Nerdor Ranch, one located east of the Pueblo area and a few stands are spotted within the serpentine bunchgrass is the southern portion of the site.

The abundance of low growing shrubs provide cover for the prey populations of rodents, insects and reptiles such as the Western Fence Lizard, the Western Whip Tails, the Striped Racer, and the Western Rattlesnake. Moderately dense vegetation offers excellent cover for a limited number of secretive bird species such as the Rufous-crowned Sparrow, California Thrasher, Anna's Hummingbird, Lesser Goldfinch, Waxwings, and Lark Sparrow. Small mammals also associated with the Diablian Sage Scrub include the brush rabbit, Hoerman's Kangaroo Rat, and bobcat.

Another distinct plant community found within the study site is the California bay-oak riparian forest. This community occurs along three intermittent streams at the northern portion of the site, as well as the confluence of the three watersheds at the southern portion of the site above the Rosetto property. The dominance of California bay and buckeye trees distinguish this community from the adjacent oak woodland. The perennial creek beginning in the southeast corner of Santa Teresa Park, previously the Wiles property, is an excellent example of the California bay-oak riparian forest.

The understory vegetation is characterized by rushes, dock, Fuller's Teasel, hedge nettle, bedstraw, and mugwort. This community probably ranks highest in wildlife value in terms of species diversity. It is also evidenced by the abundance of wildlife niches provided by its structural habitat diversity. The wildlife habitat value of the riparian forests is the study area however is moderate due to narrow canyon widths and the subsequent lack of plant species diversity usually associated with this plant community. Those areas where concentrated surface drainage results in seasonal or year round water have increased habitat value and provide an important wildlife resource.

Aquatic resources are scarce due to the intermittent and ephemeral flow characteristics of these drainage areas. Amphibians are known to frequent this habitat and there is potential for sighting the California Newt, Western Toad and the Pacific Treefrog.

Reptiles associated with more mesic environments may be present in these areas including a combination of tree canopy, downed wood material, and run-off water which make a suitable habitat for reptilian species such as the Southern Alligator Lizard and Western Territorial Garter Snake.

Bird species diversity within this habitat is moderate due to the habitat's confined area and relative lack of plant species diversity. Common passerine species include the California Quail, Morning Dove, Black Phoebe, Song sparrow and the White Crowned Sparrow.

Many mammal species are dependent on riparian ecosystems for cover and water, but may be more numerous in the mixed oak and other woodland areas. The Park's scrub, and mixed oak woodland areas are probably more suitable for most of the mammal species. The riparian forests also function as important corridors for the movement of larger mammals such as Black-tailed Deer, Raccoon, Red Fox, skunk, and bobcat.

Freshwater seep vegetation in areas where a spring provides adequate flow to support wetland plants, occurs in four areas within the study. The largest area begins at the southern portion of the Park west of the Pueblo area. The seep

CHAPTER V

- 29 -
drains south, and down into the bay-oak riparian forest above the Rosette Canyon. The associated wetland contains Fuller's teasel, rushes, ryegrass (Eryngus sp.), and saltgrass. Another freshwater seepage occurs east of the IBM facility and drains into the aforementioned California bay-oak riparian forest within Rosette Canyon, supporting the endangered plant species, Mt. Hamilton Thistle. Several springs occur on the north facing slope of the canyon previously owned by Wilets and are dominated by rushes and iris-leaved sedge. Semi-aquatic reptile species such as the Common Carpenter Snake may occur in these areas on a seasonal basis as well the Common Snipe (bird) when the habitat is well saturated. Shrews and moles find these habitats suitable when moist and may share these freshwater seepage habitats with rodents including the California Meadow Mouse and the Western Harvest Mouse.

The Coyote Brush Scrub plant community occurs within the site in a swale northwest of Coyote Peak. The occurrence of this community, in association with the surrounding grasslands, makes this habitat suitable for wildlife species such as the Scrub Jay, California Quail and Brush Rabbit.

The endangered Coyote Ceanothus is typically associated with Northern Mixed Chapparal and may occur in the four Northern Mixed Chapparal patches located in the southwest portion of the site (along the slopes adjacent to the Rosette canyon). The diversity of wildlife within this plant habitat is expected to be similar to that of the Diabtian Sage Scrub community which is dominated by such plant species as the Big-berred Manzanita and Leather Oak.

Wildlife use of the Evergreen Riparian forest patches in the study area is expected to be similar to that of the California bay-oak Riparian Forest and adjacent Mixed Oak Woodlands. Two Evergreen Riparian Forest locations occur within the study area, one located south of the golf course and one at the base of the intermittent stream above the Juice Ranch.

Non-native landscape vegetation has been planted around the golf course as well as the Pueblo area. The introduced plant species include eucalyptus, Lombardy Poplar, a variety of pine species and turf grass. These habitats are of low wildlife value relative to usefulness to native wildlife species.

The use of herbicides and pesticides for maintaining areas adjacent to the fairways of the golf course probably limits their value as wildlife habitat. A supplemental supply of nectar may be provided by the eucalyptus plantings adjacent to the Pueblo area. These plantings attract Anna's Hummingbirds and Yellow Rumped Warblers on a seasonal basis.

Seasonal ponds such as those found at the golf course and adjacent to the Santa Teresa Park Road are vital for amphibian species during breeding season. As with the septic environment of the riparian forest they offer valuable resources to other wildlife species. These ponds are an important resource of Santa Teresa Park due to their temporary nature and limited distribution, and may be a potential breeding site for the California Tiger Salamander, a state species of particular concern. The percolation pond near the golf course is a resource for a variety of waterbirds such as grebes, herons, and ducks. The freshwater marsh habitat found along the pond's margin may provide potentially suitable breeding sites for a number of water fowl such as the Pied-billed Grebe and American Coot.

Rare, endangered, candidate or sensitive species include golden eagles, and the San Francisco Fork-tailed Damselfly among others. A pair of golden eagles, species of special concern, have been seen to nest in a transmission tower in the vicinity of Calero Reservoir. Therefore, it may be assumed that the Park

CHAPTER V

-21-
is within their breeding and feeding territory. Another species of special concern is the Tri-colored Blackbird, also known to have nested at Calero Reservoir and may range as far as Santa Teresa Park for feeding and roosting. The Bay Checkerspot Butterfly, a federally listed endangered species, is associated with serpentine host plants for reproductive purposes and may also be found in the Park. The serpentine bunchgrasses of the Park offer potentially suitable breeding sites for this species.

The San Francisco Fork-tailed Damsel Fly is a candidate for the endangered species status list and breeds within seeps, springs, and drainage ditches in the San Francisco Bay Area. An unidentified damselfly was observed adjacent to a seasonal pond northeast of the Park.

There are a number of sensitive vertebrate and invertebrate wildlife species identified as known or potentially significant users of the Park’s habitat. The list of endangered species, a brief description of their status and potential habitat areas are included in the Biotic Resources Report of Santa Teresa Park compiled by the Habitat Restoration Group (Please see appendix).

In general, the Santa Teresa Park represents an invaluable botanical and wildlife natural resource for Santa Clara County.

5. Geology and Soils

The 25,500 acres of Santa Teresa Park include a variety of geologic formations including steep, north-facing slopes in excess of 40% along the northern park boundary. Elevations within the study area range from approximately 246 feet at the Santa Teresa Park golf course to more than 1,000 feet in two geology locations. The highest elevation is at Coyote Peak in the southeast corner of the Park, and the second highest is at “Bernal Hill” above the IBM Almaden Research Facility. The general geologic study identifies five geologic units which make up of Santa Teresa Park. (See “Geologic Units” on).

a. Soils

Nine soil series are found within the Santa Teresa Park study area. Limitations of the soils relative to trail use are determined through the application of the 1968 Soils of Santa Clara report (U.S. Department of Agriculture). The relevance of the soil categories to trail use is shown in the “Erosion Potential” map.

b. Geology

Five geologic units are present within the study area and are shown on the geologic units map. The Franciscan Complex underlies more than half of the study area consisting of interbedded greywacke sandstone, siltstone, volcanic rocks, chert and metamorphic rocks. This unit has varying degrees of stability given the variety of rock types that it is made up of. The valley floors north and south of the Park, as is the Pueblo area, are made up of alluvial deposits of sand and silt caused by up slope stream channel erosion.

Serpentine, a moderately stable rock with unique habitat qualities, is present in three parts of the study area; the north-facing slopes above the Joice Ranch, the rocky hill south of the Pueblo area and a majority of the south-facing slopes above the Almaden Valley.

CHAPTER V
- 22 -
A relatively narrow strip of Tertiary/Cretaceous Shale, is present at middle along the south facing slope below the IBM Almaden facility. This shale contains some interbedded sandstone. A Tertiary sandstone underlies the Bernal Hill ridge and extends north and west of the Pueblo area. The Bernal Formation contains subarctic sandstone, a moderately stable unit.

Slope Stability

From an analysis of bedrock geology, slope and surficial deposits mapping, it was determined that there are a number of active landslides within the study area. They are dispersed throughout the site at slopes of 30% or greater and in drainage swales.

Several landslides of notable size exist within the study area. The large drainage swale above the golf course beginning at Coyote Peak and terminating just above the pond is one of a sizeable landslide. Another large landslide, indicated by undulating slopes, lies above the Joce Ranch and Santa Teresa Springs. Another exists in the central portion of the Park extending well into the Laguna Property, encompassing a large portion of the northwest facing slope south of the Pueblo area. A majority of the riparian canyon slopes within the recently acquired Wilers Property are in an active and continuing landslide condition. There are many more landslides within the study area of smaller size as indicated on the "Slope Stability" map which will present various limitations to trail and/or other improvements.

An integrated analysis of bedrock geology along with surficial landslide deposits and a relative slope stability map were prepared using modified techniques employed by the USGS survey for slope stability. Five slope stability categories are mapped within the study area. (See "Slope Stability" map.) The slope stability categories range from 1, a relatively stable slope to 5, a more unstable slope, in most cases active landslide.

The relatively flat areas underlain by floodplain alluvium with uplifted alluvial terrace deposits and gently sloping alluvial fan deposits make up Slope Stability Category I. Lockitized hazards may exist within this category from minor landslides along creek banks including areas upslope and extending down slope into the alluvial deposits. Characteristically, areas underlain by Serpentinite and the Bernal Formations are moderately stable, usually involving slopes of 0-10%, which makes up Slope Stability Category II. Category II includes areas with slopes either greater than 10% and underlain by moderately stable Bernal Formation sandstone or areas with less than 10% slopes, underlain by the more unstable Franciscan complex.

Hillsides and upland areas of fairly steep slopes (greater than 10%) are underlain by the generally unstable Franciscan formation which makes up the moderately unstable Category IV. Those areas with evidence of landsliding in the past or are immediately adjacent to landslide deposits are the most unstable slopes and make up Category V.
C. UTILITIES AND EASEMENTS

The Santa Teresa Park Study area includes a variety of utilities. The electrical power requirements of the Park are located at the Muriel Wright Residential Center and the golf course. These electrical needs are provided by overhead lines on poles. PG&E retains an east-west easement across the study area for 115k and 230kV power lines for cross valley service. These lines pass over the Santa Teresa Hills by way of steel lattice transmission towers which crisscross the Park. PG&E also owns a strip of land contiguous with the eastern edge of the Park for other electrical transmission needs. Access to the power lines within the study area is provided by service roads in proximity to the towers and power lines with secondary access trails to individual towers. PG&E imposes restrictions on recreational activities and uses below power lines and towers.

A power and water easement at the extreme eastern corner of the Park provides service to the IBM Santa Teresa facility, east of the Park. Another PG & E substation is located adjacent to the two 850,000 gallon water tanks which are on IBM land near the Almaden Research Center (just below Bernal Hill).

Power lines connect this sub-station with the east-west PG & E power lines at the northern portion of the Park. Due to the steep slopes on the north face of Coyote Peak and the lengthly span between supporting poles, the telephone/cable lines sag dangerously close to the ground (in some areas withing four feet), presenting an attractive nuisance and safety hazard to Park users.

A ten foot trail easement has recently been granted by IBM. As of this printing, construction of this trail is about 2/3 complete. The trail crosses over two ridges at the east property line of the IBM Almaden Research Center. In accommodating this alignment, many switchbacks were required which necessitated a fairly wide corridor. IBM plans to fence off the entire corridor of approximately 45 acres once the trail is completed. This easement is the only connection between Almaden Valley and Santa Teresa Park. The trail which begins at San Vicente Avenue, will also function as an extension to the City of San Jose's Los Alamitos/Calero Creek Trail which begins at Almaden Lakes (will also connect with the proposed Guadalupe Creek Park chain). The original agreement between the County and IBM designates the trail as a pedestrian and equestrian trail. The trail will function as a multi-use trails (including bicycle use) at least until an alternate connection to Almaden Valley can be designated. Continuation of a multi-use designation will be dependent on operational considerations.

From Shillingburg Road in Almaden Valley, an access road to the recently acquired Wileus property functions as an easement for a number of adjacent properties. The easement begins at and passes through the 146 acre Lagartitas Ranch. The easement is shared by the Lagartitas (to access their 44 acre parcel), and County Parks (access to Wileus property which was acquired in April 1990).

KSJO radio has recently improved the Coyote Peak fire road which it uses as a service road. KSJO leases an area adjacent to Coyote Peak from County Parks and retains a service easement to their transmitter station beginning at the Pueblo loop road. This fire road is surfaced and has asphaltic concrete water bars at graden in excess of 10%. Water culverts were installed to control erosion. The road is secured with a steel gate at the entrance off the Pueblo area. It is assumed that this road provides vehicular service access for all of the leases of the radio communication towers located on Coyote Peak (including KSJO Radio, SIUS Radio, Heritage Cablevision, and City of San Jose).

There are currently three areas in the Park which require water resources. These are the Muriel Wright Residential Center, the Pueblo area and the golf course. Two wells
and pump stations are located adjacent to the entrance of the golf course, near the intersection of Bernal Road and Golf Course Lane. Water for the 70,000 gallon water storage tank, located just east of the golf course pond, is supplied by these wells and is supplemented by the Great Oaks Water District water lines across the golf course. This storage tank provides the potable water for the golf course club house, banquet facilities and the three comfort stations and drinking fountains located within the golf course lease area. Another booster pump station, located just below the golf course pond, provides enough water pressure to fill the two water storage tanks (40,000 and 50,000 gallons each) for the potable water and fire suppression needs of the Girls Ranch. This same booster pump station provides a water source for the Pueblo area irrigation and drinking fountains as well as four fire hydrants in the vicinity of the Pueblo area (upper Santa Teresa Park).

One fire hydrant is located adjacent to the comfort station in the Pueblo area and the other three fire hydrants are placed around the Muriel Wright Residential Center. Another pump station is located directly adjacent to the golf course pond and provides the non-potable irrigation water for the golf course greens. An additional water line extends eastward from the pond area toward the comfort station located adjacent to the archery range at the eastern corner of the golf course.

A 21/2,000 gallon water tank is proposed for the top of Coyote Peak. The tank would be serviced by an eight inch water line connected to a third pump station to be located adjacent to the golf course. The Coyote Peak water tank is proposed for 40 residential connections and is part of the development plan for the 28 lot Custer Estates subdivision (south of the Park).

Within the IBM ARC (Almaden Research Center), at the western border of the study area, are two 850,000 gallon water tanks. These tanks are serviced by City of San Jose water lines, with connections at Harry Road in Almaden Valley. These tanks provide the water necessary for the operation and fire protection of the IBM Almaden Research Center. The pump station, located east of the Park boundary, up-slope from the archery range, is part of an IBM power and water easement which passes through the extreme eastern corner of the Park and the archery range. This is part of a water and power easement IBM holds to supply the Santa Teresa facility (east of the Park).

The sewer facilities at Santa Teresa Park are limited to four isolated comfort stations on septic systems. It is unclear if a sanitary sewer system with connections to the City of San Jose is in place at the golf course club house. According to the Public Works Department Lateral Sewer Permit division (City of San Jose) there is no record of a sewer connection. The Parks Department could in any case, apply for an "Outside Sewer Connection Application" since the Park is almost entirely surrounded by the City of San Jose. According to Marion Dixon of that division, it is unlikely that given normal park usage, there would ever be a problem of capacity. One comfort station is located adjacent to the archery range east of the golf course. Two other comfort stations are located within the immediate area of the golf course and a fourth station is located in the Pueblo area. The nearest potential for sanitary sewer connection for the southern and western portions of the study area is from Harry Road in Almaden Valley.

The Coyote Los Alamitos Canal borders the entire northern perimeter of the Park west of Bernal Avenue and more or less separates the golf course from the adjacent foothills east of Bernal Avenue. The meandering strip of land, a utility easement, is held and administered by the Santa Clara Valley Water District. Even though its use was discontinued some years ago and it is unfenced for much of its length the District considers the current informal use of the levee for trail purposes as trespassing. The canal was constructed to carry water from Coyote Creek to the Guadalupe Creek for release to water recharge facilities. Approximately 4.5 of its total 11 miles of right-of-way skirt the edge of the Santa Teresa Park study area. No water has been

CHAPTER V  - 25 -
conveyed through the canal since 1979. The canal consists of a 12' wide gunite lined channel. The canal's right-of-way varies from 50 to 100 feet which includes a gravel service road skirting the downhill levee.

CHAPTER V
- 26 -
The recreational role that Santa Teresa Park plays relative to the 2030 Task Force report includes the provision for open space, shade, and buffer along the environmental heritage resources and natural areas as well as wildlife habitats for rare and endangered species. Although many active recreational needs are fulfilled by developed parks in the City of San Jose, Santa Teresa Park offers a number of unique settings not found within the adjacent suburban parks.

The most developed space (other than the golf course) within Santa Teresa Park is the Pueblo Group Picnic area. Vehicular access to the Group Picnic area is provided by a paved access road off Bernal Road (Santa Teresa Park Road). The access road turns off the Santa Teresa Park Road, intersects with the Muriet Wright Residential Center facility access road and winds around the perimeter of the saddle (Pueblo area). The road passes a number of parking areas and terminates at the equestrian ring and parking lot. The Pueblo area defines the starting point for number of trails and activities. Biking, hiking, and equestrian use of trails are often initiated from the Pueblo area. Five parking areas are provided along the loop road within the Pueblo area with space for more than 170 cars. A large unshaded turf area is situated in the center of the Pueblo area with an adjacent open meadow of non-native grass to the west. One of the fresh water springs discussed in the Vegetation and Wildlife portion of this report exists southwest of the Pueblo area. The area provides a potentially unique wildlife amenity near the Pueblo area and is currently protected and signed.

One comfort station is provided utilizing a leach field system. The men’s room contains 1 water closet, 3 lavatories and 2 urinals. The women’s room contains 2 lavatories, and 1 water closet. The facilities are inadequate for special events involving large numbers of people. A number of barbecues, and bench/table combinations are spread along the eastern and southern edges of the turfed area. A large limestone barbeque pit is provided for special permit groups (at least 100 persons) at the Pueblo Group Picnic area across the access road from the turfed area. This area is adjacent to a large oak which provides shade for picnickers. The tree is showing signs of decline. An equestrian area, enclosed by a wooden fence, is situated at the very end of the Pueblo access road (adjacent to the fresh water seep). The area includes the largest parking area in upper Santa Teresa Park (75 autos). There are two drinking fountains located in the Pueblo area and a number of quick cooler type irrigation heads are attached to 4 x 4 white painted posts in the turf area. Operation of the irrigation system, however, was discontinued in 1983 due maintenance requirements and to impacts on Muriet Wright Residential Center water needs.

Access to the 18 hole Santa Teresa Park golf course is provided off Bernal Road. The golf course includes two club house facilities, one of which is located on a hill overlooking the golf course. This facility is no longer used as a clubhouse but has been remodeled to function as a banquet facility. A newly constructed clubhouse complex includes a maintenance yard, golf cart garage, driving range, clubhouse, pro shop and restaurant/bar. Since the confectionery built a new clubhouse, the banquet facility is leased out for events. The banquet facility includes a bar and kitchen. The golf course currently has no water hazards designed into the 18 hole course. The golf course equipment storage facility and a two well pump station are located adjacent to the golf course entrance (old Park maintenance yard) near the intersection of Bernal Road and Golf Course Lane. The 70,000 gallon water storage tank, above the golf course on the north facing slope of the Park, provides potable water for the golf course. A booster pump station draining water from the pond at the base of Coyote Peak provides for the irrigation needs of the golf course. Another booster pump in the same area supplies the two water tanks located above the Girls Ranch Facility. A third booster is proposed to be located adjacent to the golf course to supply water to a proposed water tank (to be located on Coyote Peak) for the Calero Estates subdivision south of the Park. (See “Utilities and Easements” map.)

CHAPTER V

- 27 -
The only major water body is a pond at the foot of steeply sloping hillsides due south of the clubhouse. The pond located within the golf course lease area was constructed in 1953 to make use of canal water for irrigation according to the Santa Clara Valley Water District. Although not permitted, the pond was once used by youngsters for fishing and swimming. The increased potential for liability associated with these non-permitted uses resulted in the closure of this area. The pond located within the golf course lease area is part of a Coyote/Alamitos canal system constructed in 1953 by the Santa Clara Valley Water Company.

The Coyote/Alamitos Canal right-of-way connects the archery facility at the eastern corner of the Park to the golf course, pond, the Buck Norred Ranch, the Joice Ranch, and the Hunter equestrian facility at the northwest quadrant of the study area. The canal and service road is not continuous. This is due to a number of tinpon stations, required due to adverse conditions such as atypical topography, road crossings or utility lines. The levee road is used by bicyclists, joggers and hikers - an activity considered, technically speaking, trespassing by the Santa Clara Valley Water District.

Active recreation needs can be met by the wide variety of hiking, biking, jogging, and equestrian trails located throughout the Park and study area. (See "Established Trails" map.)

Established Trails and Trail Routes - The accompanying chart describes established trails and their relevant physical conditions such as type, width and in some cases gradients. Gradients are called out in most cases where the steepness of the slope exceeds 20 or 30%. Most of the trails are highly varied in one or more of these factors. For example, the Hidden Springs Trail starts out as a narrow jeep track but then follows the alignment of the relatively broad recently graded service road leading toward Coyote Peak. In other cases a portion of the trail may be a mixture of relatively level and very steep portions as is the case with the Stiles Ranch Trail. In many cases, portions of these trails exceed a desirable maximum gradient of 12% over a short distance. The average maximum gradient for pedestrians should be between 10% and 15% depending on soil conditions and surface.

From the standpoint of width and surface, five types have been identified. They are:

A. Paved road
B. Graded (dirt) road - maintained
C. Jeep track/farm road - double track, maintained
D. Narrow path - single track, unmaintained
E. Graded path - single track, maintained

The one paved "trail" in the area is the old road to the Wright Ranch. Graded dirt roads have essentially an all-weather surface, but because of the extremely low vehicular usage, could be appropriate for trail use. Type C, incorporates jeep tracks and farm roads which can vary from two ruts in poorly maintained grass, (spaced at 5 feet or center) to a dirt surface rutted in some cases and in others littered with boulders from adjacent cut slopes. The narrow paths, or Type D trails, are foot paths some of which have never been constructed to normal standards or regularly maintained. The only trail constructed specifically for that use and meeting relatively modern standards is the IBM Stiles Ranch Trail to be completed in the spring of 1991.

Several of the nine designated trails associated with the Park deserve comment. The Mountain Bike Trail was officially designated by the County in 1989 specifically for use by mountain bikers. Some biking enthusiasts have expressed concern that it is too short (less than 2,000 feet). The Coyote Peak Trail is one of the steepest established trails, the lowest 1/4 of this trail traverses an existing landslide. The geologist's studies

CHAPTER V

- 28 -
indicate tectonic movement in this area and erosion along some of the steepest reaches. About 1500 feet of the Boundary Trail appears to occur on PG&E property according to a map and aerial photo information. Detailed site investigations would be required to determine if this is the case since existing fences may not be relied upon as accurate boundary indicators. The Stiles Ranch Trail is not completed yet. It is scheduled for completion and dedication in the spring of 1991. It is not within the Park but rather part of an easement granted by IBM on its Almaden property. The Old Wright Center Road was replaced by the new entrance from the "Santa Teresa Park Road". Unused by vehicles and unmaintained for some time now, the AC paving surface is beginning to deteriorate.
<table>
<thead>
<tr>
<th>NAME</th>
<th>APPROX LENGTH</th>
<th>AVG EFFECTIVE TYPE WIDTH</th>
<th>MAX GRADENT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain Bike Trail</td>
<td>12,000 LF=2.70M</td>
<td>C 8'</td>
<td>54%</td>
</tr>
<tr>
<td>Mine Trail</td>
<td>5,000 LF=1.04M</td>
<td>C 8'</td>
<td>32%</td>
</tr>
<tr>
<td>Ohlone Trail</td>
<td>7,650 LF=1.45M</td>
<td>D 2°-4°</td>
<td>NA</td>
</tr>
<tr>
<td>Hidden Springs Trail</td>
<td></td>
<td>C 8'</td>
<td>25%</td>
</tr>
<tr>
<td>Lower portion</td>
<td>5,000 LF=0.94M</td>
<td>B 12'</td>
<td>NA</td>
</tr>
<tr>
<td>Upper portion</td>
<td>2,500 LF=0.47M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coyote Peak Trail</td>
<td>6,000 LF=1.14M</td>
<td>C 8'</td>
<td>32%</td>
</tr>
<tr>
<td>Lower portion</td>
<td>3,100 LF=0.39M</td>
<td>B 12'</td>
<td>23%</td>
</tr>
<tr>
<td>Upper portion</td>
<td>2,900 LF=0.55M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ridge Trail</td>
<td>3,000 LF=0.57M</td>
<td>C 8'</td>
<td>NA</td>
</tr>
<tr>
<td>Boundary Trail</td>
<td>3,400 LF=0.64M</td>
<td>C 8'</td>
<td>30%</td>
</tr>
<tr>
<td>Pueblo Trail</td>
<td>3,750 LF=0.71M</td>
<td>C 8'</td>
<td>NA</td>
</tr>
<tr>
<td>Lower portion</td>
<td>2,500 LF=0.47M</td>
<td>D 2°-4°</td>
<td>NA</td>
</tr>
<tr>
<td>Upper portion</td>
<td>1,250 LF=0.24M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stiles Ranch Trail</td>
<td>5,500 LF=1.04M</td>
<td>E 4°-6°</td>
<td>10%</td>
</tr>
<tr>
<td>Old Wright Center Road</td>
<td>3,000 LF=0.57M</td>
<td>A 14°-16°</td>
<td>NA</td>
</tr>
</tbody>
</table>

TRAIL TYPE
A. Paved road
B. Graded (dirt) road - maintained
C. Jeep track/farm road - double track, maintained
D. Narrow path - single track, unmaintained
E. Graded path - single track, maintained

* Selected Segments

CHAPTER Y - 30 -
In addition to "established" trails there are a number of other trails, particularly along the northern perimeter of the Park, which are frequently used although they are not formally acknowledged as Park trails. Two occur at the northwest corner of the Park in the vicinity of the Jojice Ranch and connect to the Mountain Bike Trail discussed earlier. This trail's main purpose is to provide service access to the PG&E towers. These both exceed a 30% gradient and are located in areas identified in this report as landslide or highly erosive soils. A third trail approximately 2250 feet in length, due west the Buck Norred stables area, slopes steeply uphill in a southerly direction, to connect to the Mountain Bike Trail. The gradient along the lower portion of this trail averages 17%.

Just northeast of the Muriel Wright Residential Center a steep trails connects the Hidden Springs and the Ohlone Trails. This trail averages a 32% gradient and is about 1400 feet long. Further east and upslope of the existing golf course pond is another ad hoc trail, exceeding 37%. It is over 1000 feet in length and is located on highly erosive soils or terrain which may be undergoing tectonic (slow slipping) movement. Upslope of the eastern end of the golf course, five additional ad hoc trails may be found. In two cases they connect the Ohlone Hiking Trail to the Coyote Peak Trail. Others connect to the FAA Repeater Station and follow the ridges in the area. The gradients for portions of these trails range from 20% to 35%. The trail up to the Repeater Station is actually a jeep track which more or less parallels the Coyote Peak Trail. The others are footpaths.

There is considerable unauthorized use of the Los Alamitos Canal levee. Such use appears to start at the eastern end outside the Park at Santa Teresa Boulevard. Hikers, joggers, and bicyclists use this route, which passes through the archery area. Trail users appear to use the Ohlone hiking trail to bypass the golf course. The Canal road is not continuous as it is broken by several underground syphons. The levee use picks up again at the golf course pond and continues westward to the vicinity of Bernal Road. Some hikers trek as far west as the lower end of the Mine Trail adjacent to the Norred property before heading up into the Park. The levee is roughly 17 feet wide constructed of graded, compacted earth and is virtually level. As such it is clearly a great attraction to trail users from the surrounding residential areas connecting as it does such distant resources as Coyote Creek and the Alamitos Creek/Guadalupe River trails. Such use, however, is considered trespassing by the Santa Clara Valley Water District which controls the rights-of-way for the canal.

CHAPTER V
- 31 -
E. TRAFFIC AND CIRCULATION

As indicated on the "Regional Trails and Circulation" map (Figure 1), Santa Teresa Park has two clearly defined access potentials, one existing from the north and one from the south. Because of the steep terrain and patterns of hillside development, there are no major vehicular access potentials from the west or the east. To the north, the largest potential vehicle source are the old Monterey Highway, and State Highway 101 which has since been upgraded to a major freeway. Bernal Avenue which provides the only vehicular entrance to the Park is a major off-ramp from the freeway.

Further to the west, Cottle Road provides access to the foot of the Santa Teresa Hills at Hunter Ranch. This property, however, is not in park ownership. Santa Teresa Boulevard roughly parallels the northern foot of the Santa Teresa Hill Range and is crossed by Cottle Road, San Ignacio, Bernal, Avenida Espana and Bayless Avenue, all of which are important access/feeder routes to the Park from Santa Clara Valley. The new 101 freeway from Cottle Road to the east, and County Santa Teresa Boulevard from Bernal Road south-easterly are designated State scenic routes.

The main vehicular access to the south of the Santa Teresa Hills is the Almaden Expressway, also designated as a scenic road. City plans indicate extension of the Expressway roughly along the existing McKean Road route extending to Calero Reservoir as a four lane road. At this writing there is no vehicular access route to the Park for the public from the south side of Santa Teresa Hills. As noted elsewhere, the Rosseto property would be a key access were it to be purchased by the County.

The southerly entrance to IBM's Almaden facility is off Harry Road. This connects to the new Santa Teresa Park Road from the Bernal Road on northern side of the Park. However, only IBM employees and Park personnel are permitted to use the road.

The City plans indicate the potential for the extension of Camden Avenue once the Almaden Valley beyond Harry Road is annexed into the City. Camden would probably follow Calero Creek southeasterly, joining and incorporating San Vicente/Fortini Roads and turn south to connect with what is currently McKean Road (and is planned to be the Almaden Expressway extension). This would of course bring a viable vehicular access close to the southeastern side of the Park.

At this writing the Park Department is negotiating for the purchase of the Rosseto Ranch which is serviced directly off of Fortini Road. Fortini Road, a single lane for light vehicle use, is partially privately owned and maintained, and would not make a plausible public vehicular access without any improvement. Except for the Santa Teresa Park Road, there are no vehicular connections across the Santa Teresa Hills. The following maps illustrate the existing and future capacity (lanes) as well as ADT's (average daily trips) for the key roads surrounding the Park as well as the Santa Teresa Park Road.

Information sources for this section include Gay Pang, Traffic Consultant and the County of Santa Clara Regional Parks Trails and Scenic Highways (map) from the County General Plan, Adopted November 18, 1980.

CHAPTER V
- 32 -
F. MAINTENANCE

1. Picnic and Related Recreation Center Maintenance

The County's maintenance efforts are limited primarily to the Pueblo picnic area. The site amenities requiring regular maintenance include barbecues, trash cans, and restroom facilities. Maintenance of this site requires approximately 18 man hours per week. In addition to the weekly maintenance of the Pueblo Picnic Area, park rangers are called upon to address unscheduled maintenance requirements caused by incidents of vandalism or dumping (approximately three times per month on the average).

In addition to this the Park maintenance staff assumes responsibility for maintaining the toilets at the archery range for the Black Mountain Bowmen's Association.

2. Vegetation and Wildlife Management

There are no specific management policies for Santa Teresa Park even though the Park, as has been noted, contains an abundance of rare and endangered plant and animal species as well as their habitats. The County Parks Department does not, as yet, have policies regarding natural resource management.

While the eradication of exotic or noxious plant materials is a generally accepted and desired goal, dedication of staff time toward this end have been considered a luxury in the past and limited staff hour and funding resources have historically resulted in an ad hoc approach. Eradication of weeds has been done in connection with an improvement such as the development of the turf area for the Pueblo Picnic Area. In this example the County obviously maintains a policy of suppressing or eradicating weeds and non-native grasses.

Native oak trees in the study area, have according to the Park's rangers, become increasingly heat stressed during the drought. This makes them much more vulnerable to occasional wildfires and invasive pests. Such problems only add to the list of resource management responsibilities.

Some forms of wildlife in the Park can cause problems for visitors. While skunks and raccoons do inhabit the Park, there are no recorded incidents of Park visitors suffering permanent physical or psychological damage. Rattlesnakes, which appear to flourish after the cessation of grazing can however, be a problem. Locals have theorized that the resultant longer grass causes a growth in the rodent population upon which the snakes feed. The Park has set out snake warning signs but these are sometimes stolen shortly after their installation. Yellow-jacket populations seemed to have increased during the drought years. They can become pests in the picnic areas, especially where wet garbage and picnic trash accumulate. Traps which have been set out for them appear to be of little success.

3. Fire Protection

As noted earlier, fires occur with relative frequency throughout the Park particularly where the public has access along trails. The small hill in the golf course (the site of the banquet facility) burns approximately every three years.

As a safety precaution, in the vicinity of picnic areas, a ten foot wide fire break is flailed around all barbecue pits or structures. Also all old farm roads or jeep tracks (20' wide) are bladed each year to enhance fire breaks and safe
vehicular access. A ten foot wide band is disc'd along all property boundaries (vegetation allowing) every year.

The Santa Clara County Park Department has not maintained an active grazing lease since 1979. Recently, the Park Department developed a grazing policy and now provides grazing licenses as opposed to leases. This allows for more control over grazing operations. The County may only issue grazing permits should that be appropriate. Prior to 1979 grazing took place above the Buck Norred Ranch.

IBM has allowed grazing on their property in the past but discontinued the practice on the IBM ARC lands while grazing on IBM STL continues. Mr. Ray Diaz, a Task Force member and facilities engineer for IBM ARC is working with environmental consultants to prepare a resource management plan for the two neighboring IBM facilities.

Santa Clara County has a policy of suppressing all fires. Any fire that would occur in the Park falls under the authority of the Santa Clara County Fire Marshall and the City of San Jose Fire Department. Fire fighting equipment currently used on fires within the study area include off road four wheel drive fire fighting trucks, a helitech crew dispersed by the California Division of Forestry, as well as fixed wing fire fighting airplanes (which drop fire retardant material). In the past fires in the study area have at times consumed up to 80 acres at a time costing nearly $70,000 to $80,000 in fire suppression costs. More recently, due to improved reaction time and response from the number of different fire fighting forces, park fires have typically been contained to 40 acres or less.

For the northern face of the Santa Teresa Range, the Los Alamitos Canal serves as an effective fire break for the residential developments in Santa Clara Valley. Structures that are most immediately vulnerable to fire in the study area include the Muriel Wright girls ranch, Buck Norred Ranch and the Joice Ranch structures. The Ohlone Trail was initially constructed as a fire break and has become an important established trail within Santa Teresa Park. Re seeding of burn areas within Santa Teresa Park has not been attempted in the past. The only reseeding of burned park area in the past occurred in the Pueblo area in order to discourage a particular path. Fires within the study area have most frequently occurred in the areas adjacent to the Joice Ranch and the golf course pond. While no fires of any magnitude have been reported recently in the southern Rosetto Canyon Area some have occurred on the Lagatutta property judging from ground evidence. If the Rosetto property were purchased and grazing discontinued, the resultant growth of grasslands and chaparral succession could increase the fire hazard for this facility as well.

4. Trail Maintenance

a. Limited funding and staffing has affected maintenance of the trails within Santa Teresa Park. Subsequently trail maintenance is limited to the use of a bulldozer or back hoe style tractor for major corrective maintenance of facilities and fire trails exclusively within the Park. Most trails (fire roads) are bladed each year. However, this method of maintenance has obvious limitations for narrow pedestrian trails. In the late 1970's a program which provided workers and maintenance people from County Correctional Institutions was very effective in keeping up a regular maintenance program for the Park's facilities.

The Weekend Work Program (WWP) provides about 10 workers per weekend for seasonal help in trail maintenance, pruning and trimming.

CHAPTER V

- 34 -
of vegetation along trails and maintenance of the Pueblo picnic area. One shortcoming of this maintenance system was that of transportation to and from the correctional institution and rest area shelters for the helpers. Unfortunately, due to the limited records hourly commitments pertaining to park maintenance are only those for corrective efforts to refine and maintain trails and facilities. The rough estimate of these hours are 100 hours per year for corrective maintenance, 20 hours per year for pruning, and mowing around trails and wires.

b. The large equipment used to maintain trails and to provide routine grading needs, such as the bulldozer/scrapers, must be transported Central Yard (5 to 8 miles away). The mobilization of this equipment requires many hours which detracts from time that could be spent on actual maintenance consuming many inefficient staff hours.

c. In the past the County has performed contour ditching and hayspread on slopes for erosion control of reclaimed areas.

d. The Park uses a commercial weed killer along roads and trails.
REVENUE GENERATION

Santa Teresa Park currently lacks the type of recreation facilities which could potentially generate revenue to offset the cost of staffing and maintenance. In fact, revenue generation, as with other park districts in the Bay Area, indicates that few bay area parks operate "in the black," (i.e., generated revenue equaling or exceeding the financial costs of maintenance and staffing). Those parks with water oriented facilities appear to come closest in covering these costs. The major on-going revenue generating uses within Santa Teresa Park are associated with the leases of the golf course and the Coyote Peak transmitter towers. Additional revenue is generated through special use permit fees generated at the Pueblo Group Picnic area. The lease revenue generated by the golf course is determined by an agreement which runs through the year 2009. The lease entails an ascending fee schedule which in fiscal year 1990 contributed approximately $500,000 to the County Park general fund. The Pueblo area provides a group picnic area which requires a special use permit for reservations. The fees are approximately $30.00 per permit with a $100 refundable clean up deposit.

The higher elevations of the Park, specifically at Coyote Peak, afford local radio and television stations an optimal location for transmitter towers. Local radio stations KSJO, the San Jose State University radio station SJSU and Heritage Cablevision Company all utilize Coyote Peak and pay a monthly fee of approximately $420 each. City of San Jose use of the site is predicated upon the exchange of like facilities for County Communication facilities within City sites. The Black Mountain Bowmans Association lease an area at the extreme southeast corner of the Park for an archery range. The Bowmans' good will lease agreement with the County is limited to a $1 per year fee. The lease term is currently on a month to month basis.

CHAPTER V

- 36 -
### GENERAL ATTENDANCE

<table>
<thead>
<tr>
<th>Event</th>
<th>EBRPD</th>
<th>SC COUNTY</th>
<th>SAN MATEO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td><strong>CAMPING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>46,932</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tent Site *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dog Fee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organized Camping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backpack Camping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campsites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horse Camping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DAY USE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-paid Group Fee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picnic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Court Play</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(volleyball, horseshoes, etc)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hiking/ jogging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mountain Bikes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day Camp</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fishing Pond</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EQUESTRIAN USE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boarding Stalls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pack Trips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pony Rides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>METHDO OF CHARGING (per Person, per Car, by Event, per Hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>AMOUNT CHARGED</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>ATTENDANCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>REVENUE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>night</td>
<td>$10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>day</td>
<td>$1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>$1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>$25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>$4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>$37-262</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$37,730</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$9,465</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$4,840</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$14,340</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$245</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$25</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$10-35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EBRPD: County wide
SC County: San Benito, based on 1980 statistics
San Mateo: San Bruno Mountain and Huddard Park
<table>
<thead>
<tr>
<th></th>
<th>EBRPD</th>
<th>SC COUNTY</th>
<th>SAN MATEO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td><strong>SOCIAL HALLS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room Rental for</td>
<td>Shar.</td>
<td>$300</td>
<td></td>
</tr>
<tr>
<td>Parties</td>
<td>E</td>
<td>$200</td>
<td></td>
</tr>
<tr>
<td>Wedding Sites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTHER SERVICES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kite Fly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scavenger Hunts</td>
<td>H</td>
<td>$20</td>
<td></td>
</tr>
<tr>
<td>Special Day Use</td>
<td>Day</td>
<td>$200</td>
<td>430</td>
</tr>
<tr>
<td>Programs (SGTC,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc)</td>
<td>E</td>
<td>$40</td>
<td>40</td>
</tr>
<tr>
<td>Public Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Officer Rental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photography</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphitheater</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NON-USE RELATED INCOME</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Fees</td>
<td>C</td>
<td>$2</td>
<td></td>
</tr>
<tr>
<td>(county and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-county</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>residents)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memberships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Park Entrance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fee (per head,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per car)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking Fee</td>
<td></td>
<td>$3</td>
<td></td>
</tr>
</tbody>
</table>

A = METHOD OF CHARGING (per Person, per Car, by Event, per Hour)
B = AMOUNT CHARGED
C = ATTENDANCE
D = REVENUE

EBRPD: County wide
SC County: Santa Teresa, based on 1980 statistics
San Mateo: San Bruno Mountain and Hayward Park
SANTA TERESA COUNTY PARK
FINAL MASTER PLAN REPORT

II. PARK BOUNDARIES

The current boundaries of the Park include a great deal less area than is indicated in the County Master Plan for potential park expansion. This plan implies the potential for expansion to logical limiting boundaries primarily to the west and to a lesser extent the north and south from its current property boundaries. In these areas, there are a number of parcels (many of which are privately owned) which could make logical extensions for the Park were they to be included. These are not necessarily candidates for purchase and the County Parks Department has initiated negotiations with only a selected few. In recent months such formal negotiations has resulted in the acquisition of the Buck Norred Ranch and the Wilets property. The maps drawn for this report were prepared after the Wilets Property had been included but before purchase of the Norred Ranch.

To the north, the County Parks Department has considered in the past the Los Alamitos Canal as a logical Park boundary. However, because of ownerships and resource values identified in this report, it appears that extension of the Park boundaries to the south limits of existing residential parcels or roads within the City limits of San Jose and those still within or directly south of the City boundary) are logical areas for potential Park expansion. A list of these areas and the rationale for expansion follows.

1. Hunter Ranch

The attractions of the Hunter Property, including prehistoric and wildlife resources, the historic Santa Teresa Mine and the potential for an equestrian center, make this a logical expansion area. The owners and the representatives of the County are not currently negotiating for this property.

2. Century Oaks Park and Site

Century Oaks Park is an undeveloped knob of land directly adjacent to the entrance to the Hunter Ranch off Curtie Road. It is connected with a long strip of land owned by the City or the Santa Clara Valley Water District land extending westward. The property shuts the slopes between private residential properties and the Los Alamitos Canal. In the event that the County might acquire all or portions of the Hunter Ranch (either through fee purchase or dedication) master planning should be coordinated with Santa Clara Valley Water District and the City of San Jose.

3. Bernal Adobe Site (AdalGord Properties)/Frazak/Bonetti Parcels

This is an area of about 13.04 acres, at the far northern edge of the Park just west of the Bernal Intermediate School. From a physical and a resource standpoint, this is a logical expansion area for the Park. The site is bordered on the west by Santa Teresa Springs and Manfa Drive, to the east by San Ignacio Avenue, to the west by the Bernal Intermediate School, and to the north by Curtie Drive. There are three parcels involved, all of which are all privately owned. There have been no formal contacts regarding acquisition or other forms of negotiation by the County. Acquisition would take place in the advent that the parcels become available. The area is relatively easily accessed from Santa Teresa Boulevard along Ignacio Avenue which is a collector street connecting more directly to Santa Teresa Boulevard than the other local residential feeder streets (which serve the Joice or Norred sites). The site is important from a historic point since it is the location of the original Rancho Santa Teresa Hacienda destroyed in 1910. It is also an area of important Native American burial sites where many artifacts have been found. These sites are

CHAPTER V

- 39 -
so rich in resources that it might be considered to have state-wide significance. The site is a designated County historic site as are the two adjacent houses (Pyzak and Bonetti). This site also includes the large oak (apparently associated with bull and bear fights of the Spanish colonial era) and two tall Fan Palms (which may have flanked the entrance to the Adobe in past times). These act as visual landmarks for blocks around and are typically associated with other historic sites in the Santa Clara Valley. There are two other structures on these properties, the Bonetti house (the Bonetti family no longer lives in this house) and the Pyzak house which is directly adjacent to the Bernal Adobe site. The Bonetti house sits on a rise overlooking the flat northern two-thirds of the site. Mr. Pyzak (along with others) holds access and water rights to the Springs. Santa Teresa Springs is within the County Park boundaries.

The flat terrain of these parcels would make limited parking and trail staging areas both feasible and economic. It is an area easily accessible to a proposed trail along the Los Alamitos Canal levee. There are interesting possibilities for the Pyzak and the Bonetti residences as both are on the County's historic structures list. This area would be appropriate either for an historic or archaeological museum or possibly a ranger station and operation center. Whether or not the houses are structurally sound is not known. Additionally, since some of the original vegetation may remain, the interesting possibility of restoration of historic gardens exists.

There is sufficient level area to provide for family picnic facilities and an informal play meadow which would also fit with the museum and trail head functions. Illustrated signage might be appropriate to highlight the considerable historic and prehistoric values of site. Reconstruction of the Bernal Adobe by a non-profit historical society is also a possibility that might be explored. If reconstruction of the Adobe is not feasible the Pyzak residence, itself an historic structure, might be a satisfactory alternative. It could of course be developed into an interpretive locale as well as history museum.

There are options open to County Parks operation and maintenance that should be taken into consideration should public use of these parcels become feasible in the future.

a. The County could consider a joint effort with the City of San Jose in construction and/or operation of a limited picnic facility and/or play meadow on the flat portion of the site. There are no other significant city parks in the immediate vicinity so this might be an advantage for the City of San Jose. Physical construction in the area is problematic in any case because it is within a zone of high archaeological sensitivity (burial sites).

b. The resources described above could be developed by the State and the site turned into a state park or operated as a state historic monument either by the state or a recognized non-profit historical society.

According to County staff no offers have been made to any of these owners regarding purchase or dedication of property.

4. Gorin Property

This small parcel, currently in semi-rural use, with limited equestrian facilities, lies at the mouth of Fortini Canyon adjacent to the southern edge of the Rossetto property. It might become a useful area for staging and gateway functions if the Rossetto Ranch were purchased. There are no current negotiations between the owners of this parcel and the County.
At this writing the Park boundaries include the recently acquired 2.7 acre Wilets Property located south of the Pueblo picnic area. Directly west of this acquisition is the 187 acre Rossetto Property currently. The County is currently negotiating for acquisition of this important parcel with the current owners, QuickSilver Development Corporation. There are two IBM Corporation facilities adjacent to Santa Teresa Park. The 3678 acre Almaden Research Center (ARC), formally the Stiles Ranch, is sited above the Almaden Valley on the south facing slopes southwest of the Park and shutting the Rossetto Property. East of the Park is the IBM Santa Teresa Facility which is on a 966 acre parcel. These provide large natural open space foregrounds along the Park's southern and eastern boundaries which should be considered as potential future expansion areas or visual buffer zones for the Park.

At the center of the Park, the Lagatutta family holds a 44 acre parcel of grassland property. This property is characterized by serpentine outcroppings and a colorful array of native wildflowers. Mr. Lagatutta has access to this property via an easement (held in perpetuity) beginning at his property on Shillingburg Road (in the Almaden Valley). The easement crosses the Wilets Property and is shared by Mr. Lagatutta, County Parks and Western Union Telegraph Company.

During the preparation of this report, the County concluded negotiations with Buck Norred for the purchase of his ranch on Heston Moor Road. The maps in this document were drawn before the purchase. The 17 acre parcel (discussed in detail in the Recommendation Section) includes various equestrian stable and boarding facilities, group picnic facilities, and an old residence along with a variety of other buildings and structures. It has for a variety of reasons the potential for adding to the Park's recreational and revenue generating viability.
VI. ISSUES EFFECTING THE MASTERPLAN
Three categories of issues are addressed with in this chapter. The first is "compatibility", broken into two subsections: One, the compatibility of various permanent or temporal uses, taking into account the social norms of the environment, and two, the compatibility of, and between, the various types of uses occurring concurrently in a particular zone of the Park. Two additional issues are security and operation of the Park.

A. RECREATIONAL USE AND COMPATIBILITY

1. Equestrians/Bikers

Questions were raised at the first public meeting regarding the compatibility of novice equestrian and mountain bike users on the trails in Santa Teresa Park. The questions revolved around the reaction of horses and their inexperienced riders to the sudden appearance of cyclists on the trail. There were also complaints regarding the newly designated bicycle area and trails near Bernal Hill. It was argued that the trails designated specifically for bikes were too short and not worth the effort to travel to the site for their use. Issues regarding shared/segregated trails use prompted the planning team to survey seven public agencies in the Bay Area regarding their policies in this matter. While some agencies had no firm policies regarding multi-use trails (combining pedestrian, equestrian, and bicycle use or other restrictions such as speed limits or posted restrictions, others have well-developed policies. There appears to be little inter-agency coordination as far as issues arising from these changes. This is imminently critical if the multi-use concept of the Bay Area Ridge Trail is to be realized. The BAR Trail is intended to provide segregated alignments where physical characteristics permit, however, if the terrain is limiting, and the potential for segregation of trail is limited, multi-use trails are to be provided (at least until a segregated alignment is secured).

Considerable input was generated by bicycling groups. This ranged from specific proposals for trail use and categorization of Santa Teresa Park trails (letters and maps from Don Axtell) including a number of form letters supporting extensive multi-use trails. These materials are reproduced in the appendix section of the report. Other related issues include potential or perceived conflicts between the various trail user groups on steep and narrow trails with obstructed views and inadequate sight distances.

2. Golfers/Hikers

Informal use by hikers of the Los Altositos Canal as a trail (especially in the vicinity of the pond) has the potential for conflicts including disturbance of golf play and the subjection of hikers to the hazard of flying golf balls.

3. White Oak Picnic Area

A popular neighborhood picnicning facility, the White Oak area, was closed to public use with the expansion of the golf course. A relatively large restroom (which had been constructed by the Park Department), was abandoned. The area was replaced, theoretically, with the construction of the Pueblo Picnic Area. In the new area, the environmental quality of the Pueblo area has never matched that of the White Oak area which was adjacent to a pond and natural springs and sheltered by mature oak trees. Two other reasons for the closure of this facility were swimming and night parties. Although swimming was never permitted, one drowning has occurred. The lack of staffing for a full time
# Multi-Use Trails Comparison

<table>
<thead>
<tr>
<th>Trail Authority</th>
<th>National Park Service</th>
<th>Ridge Trail Bay Area</th>
<th>GCNRA</th>
<th>San Mateo County Park &amp; Recreation</th>
<th>EBPJD</th>
<th>EMBUD</th>
<th>MT. Tam State Park</th>
<th>Marin County O&amp;L</th>
<th>MP Peninsula O&amp;L</th>
<th>Public Utilities Water Shed Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Use Trail</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Width/Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Envir. Assess Restrictions</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>N</td>
<td>Y</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Posted Speed Limits</td>
<td>5-15 MPH</td>
<td>4</td>
<td>Y</td>
<td>10 MPH</td>
<td>Y</td>
<td>4</td>
<td>5-15 MPH</td>
<td>8-15 MPH</td>
<td>10 MPH</td>
<td></td>
</tr>
<tr>
<td>Bike Path Min. Width</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Posted Area Restrictions</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>3</td>
<td>Y</td>
<td>3</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>

1. Bikes allowed on fire/service roads only — Y = Yes, N = No
2. No recent Trail Construction
3. Currently no standards
4. Standards currently being developed
4. Archery Range/Hikers

The use of the Los Alamitos Canal levee has the potential for hazards to pedestrians and bicyclists where it abuts the archery range. Generally, the lower archery range is sited in a. linear fashion with target ranges backing up to the Canal with shooting taking place in the direction of these actively used unofficial trails. (See also Chapter VI (Inventory and Analysis), Section 3 (Utilities and Easements)).

The area, roughly 12 acres in size is not used intensively and constitutes a large percent of relatively level land within current park boundaries. The Park contains relatively few large, flat potential active use areas of this size.

5. Grading, Fences/Hikers

There have been reports of damage to fences adjacent to ranch lands presumably by Park users. Damage can be caused by Park users as they cut through or climb over fences. The Parks Department has responded to these concerns and made repairs. Also, fences have been affected by fires, whether started inside or outside the Park. Older fences (acquired with property) consisting of wood posts are particularly susceptible to fire damage. New park fences are typically metal stakes with barbed wire.

6. Hazards/Utilities/Hikers

The neighbors of Santa Teresa Park are no different than the neighbors of parks throughout the Bay Area. Those who have parcels which back up to park land and are not visible from the nearest public street (and therefore from police vehicles) are very concerned about the possibility of formal or informal trails along their back yard fences. Concerns were expressed that present and anticipated use of the Los Alamitos Canal as a trail would generate break-ins, vandalism, and other illegal activities. A 1983 report on the future role of the Coyote-Alamitos canal refer to potential liabilities for Santa Clara Valley Water District due presumably to its current unused and unsupervised status.

7. Hazardous Utilities/Hikers

Several power lines, particularly in the vicinity of the Ohlone Trail and Pond Area (providing power to such facilities as the KSJO radio station or the Wright Ranch), have been constructed without consideration of access to park users. In one case, the low point of the arc comes within four feet of the ground near the Ohlone Trail, and therefore within easy reach of park visitors.

8. Santa Teresa Park Road Usage/Park Users

During informal discussions with the public at the workshops, several individuals expressed concern over the "heavy traffic" levels generated by the Santa Teresa Park Road and the occasional driver who fails to recognize the stop signs at trail crossings (See also Section A 5 Traffic and Circulation, Chapter VIII). Traffic levels on the Santa Teresa Park Road do not exceed normal uses of suburban residential and park area roads according to the planning team traffic consultant Gay Pang. Original intent of the road was a "general access road" and was built to County standards including bike lanes and shoulders according to IBM. It adequately handles the current flow. Such use problems therefore are

CHAPTER VI
- 43 -
"perceived" and are seen to be encroaching on a desired level of visual and acoustical quietude, which park users expect. (See also "Security" below). However, vehicles commonly exceed posted speeds and fail to observe stop signs at pedestrian and equestrian crossings, thereby posing a safety hazard.

9. Pond Hazard

The existing pond (which is used as a water holding pond for golf course irrigation) is unsupervised and unfenced. It was used prior to 1983 as a fishing facility but was closed after a drowning incident. The pond's generally attractive surroundings and relatively easy access along the Los Alamitos Canal levee make it a continued hazard or at least an attractive nuisance.

10. Water Tank on Coyote Peak

The proposal for a 212,000 gallon water tank atop the highest peak in the Park generated concern. In addition to the potential for visual impacts and the appropriateness of such a utilitarian structure on a landmark of potential interpretive value, there was concern over the precedent of using a public park to accommodate a private development. This was in apparent reference to other potential hillside and ridgetop development sites near the Park along Santa Teresa ridge. One neighbor suggested that the emphasis should be on removing rather than adding more utilities. Financial compensation was not included in the Conditions for Approval of the conceptual plan as approved by the Board of Supervisors. The conditions did include provision for horse watering troughs and two fire hydrants along the waterline.
ENVIRONMENTAL RECREATIONAL USE COMPATIBILITIES

The next set of issues concerns park uses and the physical or visual capacities of the park environment.

1. **Slope Failure/Physical Facilities**
   
   While it appears that as yet there have been no failures endangering recent improvements such as roads or trails, it is clear from geologic studies that many of the steeper slopes of the Park are in delicate equilibrium and could easily fail should a grading for trails, roads, or other facilities be carried out in an improper fashion. (See also Chapter VI 'INVENTORY AND ANALYSIS'.)

2. **Fire**
   
   Natural or man caused fires pose a continuing problem for park managers in several plant community types e.g., Chaparral. Periodic fire is a natural and healthy occurrence. Fires of moderate heat are beneficial for regeneration of some types of seeds. Catastrophic fire, fueled by litter built up over years due to fire suppression, can however destroy such seeds when fire does occur. Yet because of adjacent and on-site improvements, park staff and local fire departments are required to suppress all fires. This has lead to a dangerous build up of fire fuel (dried wood, debris, high grass and trash etc.), particularly in the Ohlone Trail area and slopes above the golf course. This is particularly important during drought cycles.

3. **Off-leash Dogs/Wildlife**
   
   There has been mention at public meetings of a desire for unrestricted dog access to the Park or a dog exercise area. Unrestricted use could result in harassment of cattle and adjacent cattle ranching operations and has the potential of endangering endemic or indigenous wildlife. Currently, park policy allows dogs on leashes in picnic areas only. A plan to designate a trails system for pet use was voted down by the Parks and Recreation Commission in 1989. According to Park staff, women joggers running alone like to be accompanied by leashed dogs for safety.

4. **Rare and Endangered Animal and Plant Communities**
   
   Because of land form in combination with geology and serpentine soils, substantial areas of sensitive riparian corridors and native grasslands (which are in themselves of value) support wildlife which is either rare and/or endangered or about to be listed as such. A potential issue is whether or not recreational uses can be introduced without disturbing or destroying such resources.

5. **Utility/Visual Environment**
   
   The most obvious utility easement within the Park is the large PG&E high voltage electrical transmission towers and lines. In many cases these were in place before the assemblage of parcels making up the Park. Some power systems (including wooden poles) were added afterward (power to the Muriel Wright Residential Center, to KSJO, etc.) Any future lines, whether or not for public agencies or utilities or private concerns, should meet the goals of the Park Master Plan.

A similar issue has arisen with respect to a proposal made some time ago (1981) to place a water tank at the top of Coyote Peak for private use. The proposed

CHAPTER VI

- 45 -
tank would be supplied by water from Great Oaks district with a connection at the golf course, pumped 930’ up to Coyote Peak with the water line ascending the steep slopes above the golf course to a large tank at the top of Coyote Peak. The Board of Supervisors approved the proposed concept of a 62,000 gallon tank and water line in 1982 for 40 residential connections. Since that time, the adjacent 28 lot subdivision has become active and will require a 212,000 gallon water tank. The developer and their engineers have submitted plans for the Park’s Department approval. Water from the tank would be available for fire suppression and horse watering troughs according to the concept. The value of this trade-off cannot be determined until the Park’s additional water needs are determined at the completion of the Draft Master Plan. No financial compensation for the easement is included.

Such uses should, in any case, adhere to the physical and visual criteria established in the Master Plan for park uses and facilities.

A more basic question outside of the purview of this study, is whether public lands should be used at all for the provision of services to private development, in part due to the precedent setting implications.
C. SECURITY

Staffing

Santa Teresa Park has operated for years with a part time staff, which operates from Calero Reservoir Park and must share its operational and maintenance time with Almaden Quicksilver and Calero Parks. The construction of the modern Santa Teresa Park Road made unauthorized night time access to the Park by off-road vehicles and others quite easy. Because IBM workers need outer access at the IBM Bernal entrance at night when the Park is "closed", there is no way to get the entrance off at Bernal Road. A construction program to line vulnerable curb reaches with 36” plus boulders has been started and appears to be successful in limiting some of the uncontrolled access to off-road areas. Off-road vehicular tracks in the Pueblo area have been replanted and stabilized. Other unauthorized users, however, remain a problem even though vandalism has abated lately, according to Park field staff.

An interesting perspective on the lack of staff was provided by seventh grade students at the nearby Bernal Intermediate School. Many of them mentioned the need for a full time ranger. Prior to Proposition 13, Santa Teresa Park had two separate units sharing the same offices and maintenance yards at the Golf Course. One unit operated and maintained the Golf Course, while the other was dedicated to operation and maintenance of the Park. Staff dedicated specifically to Santa Teresa Park included, a Supervising Ranger, RangeMaster (for rifle range, which is now an archery range), two full time rangers, two full time maintenance crew and various seasonal employees (a total of 6+). As a result of Proposition 13, staffing was cut and park units were consolidated, with Santa Teresa’s merging with the Calero unit. The Golf Course including the Santa Teresa maintenance yard and offices were leased out to a concessionaire and all Santa Teresa Park operation and maintenance facilities were moved to Calero. Permanent staffing dedicated to Santa Teresa has not been replaced as of yet. Currently, the Calero unit is responsible for Calero Park and Reservoir, Almaden/Quicksilver, and Santa Teresa, totaling 7,531 acres. The permanent staff consists of one Regional Park Manager, one Senior Ranger, four rangers and four maintenance workers or slightly over 3 per park assuming equal distribution. Most of the units time is dedicated to operational and maintenance of Calero Reservoir.

CHAPTER VI

- 47 -
D. OPERATIONS

1. Scheduling

In contrast to the apparent low intensity of usage over past years (only limited statistics for Santa Teresa Park have been kept since 1980), the nature of use is changing such that conflicts are arising. Events or park use involving large groups or reservations of a park or portions of a park, require special use permits issued by the County Parks Department. These permits are issued on a first come, first serve basis for a fee based on a standard fee plus the events impact on normal revenue generation. An example of a recent scheduling conflict occurred on the weekend of July 28-29, 1990, when an arranged, specially permitted mountain bike event precluded an unscheduled equestrian tour by a local commercial equestrian business. Substantially increased biker use has been implied by statements of biker groups. An estimated increase in population in nearby Almanza Valley of some 6,000 persons and regional trail connections in process add to this pressure. Scheduling methods and/or staff commitment may need adjustments to respond to these changes.

2. Maintenance

The focus is on maintenance of the Pueblo area picnic facilities and meadow, removal of trash and maintenance of restrooms. In several areas, trails need clearing or regrading and installation of drainage devices. The level of disrepair may have been made worse because of the lack of overall trail use controls and signage which encourage unauthorized use of non-designated trails and/or trails which are subject to erosion. Accessories such as signs, benches, and hitching posts are limited and receive limited attention. The recent and anticipated increase in use, along with the implementation of any master plan recommendations, will substantially increase maintenance needs.

3. Irrigation

Even though the irrigation is connected to the Muriel Wright Residential Center water system for the Pueblo turf area, it has been used insist in the past few years because of the drought, the impact on Muriel Wright Residential Center water needs, and maintenance cutbacks. This, in turn, has resulted in a dramatic reduction in use of the area according to Park staff, especially during the hot, dry summer and fall months.

CHAPTER VI

- 48 -
VII. SYNTHESIS: OPPORTUNITIES AND CONSTRAINTS
A. INTEREST GROUPS AND USE PROJECTIONS

1. Information Sources

Prior to and during the preparation of this report, two public meetings and three task force meetings were held with attendance ranging from 17 to 35 persons. These workshops have been the source of a great deal of the information regarding recreation interests for Santa Teresa Park. In addition, County staff mailed 255 survey questionnaires to Task Force members, interested park users, bicycle shops, equestrian organizations, archery shops and local schools in April and May of this year. In addition, the surveys and flyers for all public workshops were posted at the Almaden and Santa Teresa Libraries and at the Southside Community Center. A number of communications including seven form letters were received from individuals interested in multi-use trails and shared equestrian/mountain bicycle use. Finally, extensive discussions in the field with the Park’s field and administrative staff provided a good deal of information.

The following summary lists the activities considered and their apparent popularity. A tabulated form of the survey is included in the appendix. While a survey of 250 respondents must be considered of limited accuracy, the general range of uses seem to be supported by the informal discussions at workshops. It appears that the respondents reflect a cross section of interest with relative accuracy.

The comments which accompanied the check list forms indicate a strong interest in restoration of a grassy shade area particularly in connection with picnicking use. Mountain bicycling, equestrian and other shared use trail enthusiasts vigorously argued for more multi-use trails and longer trails for bicycle use. By far the greatest interest was in an activity not normally associated with County facilities, a swimming complex. Some of the respondents were members of Mr. Mike Beulland’s seventh grade class at Bernal Intermediate School. Other activities which were not included in the survey list but which appeared to be of some interest to special groups included soccer fields, a cross country running course for high schools, a historical museum and a dog run area or “dogs on trails” policy.

It is significant that the wide range of uses derived are highly contrasting and in some cases potentially conflicting in nature. For example for someone making quiet, passive uses of historic trails, interpretive facilities, and nature areas intensely physically active uses such as cross country running, mountain biking, field play areas etc. could be seen as disruptive. Another type of contrast can be seen in the passive uses which are typically sited in rustic open space settings compared to those which are usually associated with more urban use areas such as a swimming pool complex.

2. Interest Group Goals

Three groups clearly distinguished themselves; the mountain biking group, equestrians, and environmentalists. Only the mountain bike groups submitted specific map suggestions for trail uses while other groups and individuals relied essentially on resource data gathered by this study and referred to sites within the Park where their interests might be met.

3. Use Projections
The survey data, limited as it was to some 30 individuals, is inadequate in providing quantitative use projections. While the Park is a unique entity serving a County wide system, it is clear that the greatest pressure comes from individuals living closest to the Park. This may be less so in the case of golfers and midday hikers and joggers who are employed at the IBM facility.

The greatest source of users for the Park, it can be assumed, comes from the urbanized Santa Clara Valley floor directly north of the Park. The population within a two mile radius from the north side of the Park (at the Bernal Road entrance) is estimated to be approximately 15,000 to 16,000 individuals (1,900 times 4.5 units per gross acre equals 6,750 units times 2.3 individuals per unit equals 15,325). Conversely, to the south, City plans suggest a potential future population of about 6,000 in the lower Almaden Valley Urban Reserve area in addition to existing populations. With the completion of a regional trail system in the future, additional users will be “passing through” the Park and perhaps stopping (as opposed to destination users).
### USER SURVEY SUMMARY - Most Desired Uses

(Listed from highest to lower vote tallies. All items received a plurality in the April-May 1990 survey.)

<table>
<thead>
<tr>
<th>Total Votes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family picnic area</td>
<td>30</td>
</tr>
<tr>
<td>2. Hiking/Logging</td>
<td>27</td>
</tr>
<tr>
<td>3. Informal play meadow</td>
<td>26</td>
</tr>
<tr>
<td>4. Native shade trees</td>
<td>26</td>
</tr>
<tr>
<td>5. Equestrian trail riding</td>
<td>23</td>
</tr>
<tr>
<td>6. Historical mining/ranch trail*</td>
<td>21</td>
</tr>
<tr>
<td>7. Nature trails and areas*</td>
<td>21</td>
</tr>
<tr>
<td>8. Group picnic</td>
<td>19</td>
</tr>
<tr>
<td>9. Kite flying area</td>
<td>17</td>
</tr>
<tr>
<td>10. Mountain biking</td>
<td>17</td>
</tr>
<tr>
<td>11. Formal turf field play</td>
<td>17</td>
</tr>
<tr>
<td>12. Joice Ranch use</td>
<td>15</td>
</tr>
<tr>
<td>13. Running/X country events</td>
<td>15</td>
</tr>
<tr>
<td>14. Archery</td>
<td>15</td>
</tr>
<tr>
<td>15. Dog run area/dogs allowed on trails</td>
<td>14</td>
</tr>
<tr>
<td>16. Shade structure</td>
<td>14</td>
</tr>
<tr>
<td>17. Horse rentals</td>
<td>13</td>
</tr>
<tr>
<td>18. Fishing pond</td>
<td>10</td>
</tr>
<tr>
<td>19. Pony rides</td>
<td>10</td>
</tr>
<tr>
<td>20. Day camp</td>
<td>10</td>
</tr>
<tr>
<td>21. Swimming Pool</td>
<td>8</td>
</tr>
</tbody>
</table>

* For and Against totals were the same for both items.

### Split-Vote Items (no plurality - 15 votes or fewer each)
- Court play
- Equestrian pack trips
- Riding lessons
- Amphitheater/open air performances
- Special day use programs
- Historic re-enactments
- Arboretum
- Rental for parties/events
- Scavenger hunts
- Riding corral
- Weddings and ceremonies
An assumption that current use levels reflect this population pattern would assist somewhat in making future use projections. The problem with this assumption is it cannot be backed up by attendance figures (none have been kept for Santa Teresa Park since 1980). Also the current, very limited facilities, plus the virtual elimination of such important items as irrigation for the Pueblo area and the displacement of the White Oak picnic area, probably imply a lower level of interest by the adjacent population than would be the case were these facilities fully developed and their recreational and interpretational characteristics well known to the public. One can only assume that improved conditions in the Park would generate a much higher level of use for the Park from the existing population base and that the demand for such uses can be expected to nearly double by the time the lower Almaden Valley and adjacent foothill areas are built out. Figures for permits and individuals for the Pueblo picnic area are available for the following years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Permits</th>
<th>Individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>23</td>
<td>1306</td>
</tr>
<tr>
<td>1986</td>
<td>22</td>
<td>1190</td>
</tr>
<tr>
<td>1987</td>
<td>23</td>
<td>1435</td>
</tr>
<tr>
<td>1988</td>
<td>14</td>
<td>850</td>
</tr>
</tbody>
</table>

Prior to 1980 records show a peak in use of the Pueblo area of 109,537 individuals (1973) to a low of 37,920 (1980).
B. RESOURCE SENSITIVITIES

The physical and visual resources and their characteristics have been summarized in three maps: Overall Sensitivity Zones, Shelter Zones, and Views and Site Character. The "Overall Sensitivity Zones Map" summarizes all of the physical and historic/prehistoric resources. In addition it reflects, in essence, a 'stacking' of conditions leading to greater sensitivity where more valuable or delicate resources occur and conversely less sensitivity where there are fewer such resources. By contrast, the definition of shelter zones and the values attached thereto are based on site observations, and topographic and cross sectional analysis.

1. Physical Sensitivities Composite Map

Five categories are shown on this map.

a. Very High Sensitivity: The highest sensitivity zones include such factors as landslide, potential high soil erosion hazard, sensitive riparian vegetation and/or streams, the Checkerspot Butterfly habitat and prehistoric burial grounds in various combinations. The highest concentration of these is in the zone roughly centered on the Rosseto Ranch extending eastward into the Wilets property and to a lesser degree westward toward the IBM ARC gate. North of the crest of the Park, the highest sensitivity zones occur in a much patchier fashion, roughly covariant with the steep canyons above the golf course, the Buck Norred Ranch and above the Joyce Ranch and Santa Teresa Springs. Smaller areas in a more scattered pattern appear on the mid-slope on the Hunter Ranch to the east of the study area.

b. High Sensitivity: High sensitivity zones combine butterfly habitat with erosion hazard and riparian zones, but also in some cases landslide areas in the vicinity of oak forest and erosive soils. The largest zones of this category occur on the north facing slopes of the Wilets or Big Oak Valley, the north facing slope above the Pueblo area and to a lesser degree above the golf course. A very strong concentration occurs on the slopes surrounding the Rosseto Ranch and just at the westerly boundary of the existing park, partially on the Hunter Ranch property. The Patchy areas occur at the western edge of the Hunter Ranch and again at mid-slope. This also occurs above the Buck Norred Ranch and to a lesser degree on the south facing slopes of the Wilets property.

c. Moderate Sensitivity: This category may include endangered butterfly habitat covariant with oaks or with riparian habitat and with high erosion hazard zones and/or oak forests. Another combination in this category is the endangered butterfly habitat with high erosion hazard and oak forest areas. Most of the sloping areas of the Park which exhibit moderately high and high sensitivities fall in this category with large areas all along the northern slope of the Santa Teresa Hills (the Hunter and the Joyce Ranches), the slopes above Buck Norred and above the golf course. Another large patch occurs on the rocky ridgeline some of which is owned by the Lagunitas family and then again on the ridgetop of the Wilets property.

d. Low Sensitivity: This category includes the riparian habitat without any other sensitivity factors, high soil erosion zones in connection with a landslide zone or an erosion zone in connection with an oak forest condition. Somewhat more limited in size, there are patches of this category found at the base of the north facing Hunter property slopes.

CHAPTER VII
a few upslope of the Buck Norris Ranch, areas near the Muriel Wright
Residential Center and along the edge of the Wilets property with a few
remaining patches around the Rossetto Ranch.

e. Very Low Sensitivity: The lowest category includes slopes under 30%
that are free of any of the foregoing constraints (landslides, riparian
high erosion hazard, etc.) which are either grasslands or oak woodlands.

2. Shelter Zones

One of the most important qualities for regional park use is a sense of seclusion
or shelter. This is, of course, reflective of a basic human need to have some
sense of control over the immediate environment no matter how minimal or
primitive the environmental factors involved are. Shelter zones picked by the
planning team are frequently covariant with prehistoric habitation or use areas
such as grinding holes or burial grounds. Five zones were identified in the
study. Taken as a whole, they occur in essentially contiguous zones, 1) in the
valleys surrounding and downstream of the Rossetto Ranch, 2) all along the
high ridge of the Hunter Property, 3) in a few isolated patches at the base of
the slopes above the golf course, and 4) again at the far eastern edge of the
property which is currently used at the archery range. Each of these zones is
made up of one or more of the following categories of shelter. These are
illustrated in the accompanying cross sectional diagram.

A. The strongest combination of environmental factors involves mature
oak forest, grasslands, and relatively small valleys flanked by slopes
of 15% or greater. The width of the valleys is generally less than 500
feet. A variation on this type (illustrated by Section A) is where a
cluster of riparian vegetation parallels a young stream or gully providing
narrower shelter zones along creek banks.

B. These can occur at the north facing side of a relatively narrow valley
where the oak trees have clustered in response to greater ground moisture
(as is the case in Big Oak Valley) or off to the side of a ridgeline which
occurs on the Hunter Ranch west of Bernal Hill.

C. This occurs on convex land forms or basins, ridgelines, where the
sense of protection is somewhat less but is provided by mature oaks
unobstructed with chaparral or other shrub vegetation. The largest
concentration of this zone is along the main ridge, mostly on the Hunter
property. A small and rather unique patch is created by a group of
Pygmy Oaks overlooking the Rossetto Ranch.

D. The land form which gives the least sense of protection is that of an
open valley which lacks mature oaks but is either small enough in terms
of the width of the valley floor or is flanked by steep enough slopes to
have a general sense of enclosure.

3. View and Site Character

This map has been described in Chapter VI, Section B-1. The map reflects
five constituent elements as follows:

Regional ridgelines
Visually prominent slopes
Regional mountain peak or hilltop

CHAPTER VII

- 54 -
Ridgeline views (linear in character)
Vista points (localized)
Secluded zone

The last of these (secluded zone) is one from which no direct or significant urbanization (including the IBM Almaden facility) is visible.

Each of these zones is sensitive in a different way. Tree removal, grading or construction of structures on the steep hillsides, ridgelines or peaks would be easily seen from surrounding urbanized neighborhoods which would therefore be in conflict with County goals. The greatest problem with any physical alteration of ridgelines, mountain peaks or hilltops is that any additional structures will be seen in silhouette and thus become highly visible.

Disturbances here could include grading for roads, development of trails or utilities, a removal of oak forest or riparian or chaparral vegetation and of course, grading for and construction of any major structures.

The introduction of man made structures to the secluded zone could be problematic. This study recommends that this area be treated with special concern, because it will, in a short period, become one of a few areas relatively close to urbanization where residents from either the adjacent Santa Clara or Almaden Valleys can "escape from" the urban scene.
C. PLANNING AND DESIGN

1. Environmental

A Sensitive Environment: The constraint implications of the environmental opportunities and constraints listed in Chapter VI can be summarized as reflecting a visual, physical and biological environment which is relatively sensitive and in some situations highly delicate. This appears to be so on ridgetops that are seen by surrounding residents or by contrast in narrow sometimes secluded valleys. In areas that are not burdened with constraints such as landslides, high erosion hazard, sensitive habitats for endangered butterflies or aquatic breeding grounds and the like, there may be visually secluded zones that present visual environments perfect for historic and prehistoric interpretation.

Because of these sensitivities some of which have extremely limited carrying capacities, recreation uses should logically be located and designed to respond to these highly varied sensitivities. For example, highly active uses involving large numbers of people in vehicles should, in general, be located off the steep slopes and away from secluded zones at the center of the Park. The alternative is to locate these areas at the periphery of the Park where they can be reached directly from adjacent arterial or neighborhood roads and/or regional trails. The parking capacity of these areas varies highly and some parking will be difficult. Nevertheless, several different opportunities are described in a subsequent chapter of this report.

An example of the need to respond to environmental sensitivity is the Joice Ranch. According to "Slope Stability" maps prepared by Earth Technology, the ranch house is located either on or at the base of an existing landslide. Even though the structure has stood since the latter part of the 19th century, environmental changes, such as tectonic movement may have occurred and are likely to occur in the future. Additional, more detailed study by geologists and/or structural engineers should be considered as a part of the plans provided by the interested groups. These should establish in a precise sense the relative safety of the buildings. By implication as well, any improvements which might disturb existing ground levels or surface or subsurface water conditions should be carefully studied. In some cases, extensive excavation or filling can trigger landslide movement. In a similar vein, the impacts of livestock or grazing, particularly on the steep hillside areas behind the house, should be considered because of the potential for increasing erosion on soil types that are highly fragile.

Similarly, trail type uses should be determined based on physical requirements for the use considered where new trails are called for, such trails should be located and designed to respond to the highly varied and in some cases limited capacity of the natural landscapes. Soil erodability, as shown on the accompanying map (Figure 27) is the most important constraint.

In highly sensitive environments, such as Santa Teresa Park, it is important to identify the potential for various uses to impact the environment adversely. The following "Physical and Visual Impacts Summary Chart" (Figure 26) is a generalized ranking applied to those uses that have been mentioned as appropriate or desirable for the Park. It illustrates relative differences only. Well designed facilities which are closely adapted to environmental constraints can in some cases mitigate adverse impacts.

At the same time, it is clear both from the opinions surveys and from discussions with the task force and the public that by and large, the uses which
the public now associates with the Park are generally those favored to remain with a limited number of exceptions noted (e.g., a turfed soccer field, dog run, shade structure and a swimming facility). The remaining potential uses of interest generally appear to be those which could be accommodated without major biological or visual disturbance. It is clear, the public does not support uses that would require major buildings or structures, nor does it want to see massive upgrading of trails by the inclusion of paved or divided sections. There appears to be a corollary interest in preserving the existing look of the Park by avoiding the addition of major utilities beyond those which already exist.
**PHYSICAL AND VISUAL IMPACTS**

**SUMMARY CHART**

In highly sensitive environments such as Santa Teresa Park, it is important to identify the potential for the construction of various facilities which may impact the environment adversely. The following is a generalized ranking applied to those uses which have been mentioned as appropriate or desirable for the Park. It illustrates relative differences only. Well designed facilities which are closely adapted to environmental constraints can in many cases mitigate adverse impacts.

<table>
<thead>
<tr>
<th>PHYSICAL ALTERATION OR IMPACT LEVEL</th>
<th>VISUAL ALTERATION OR IMPACT LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>HIGH</td>
</tr>
<tr>
<td>Major utility systems (major underground lines)</td>
<td>Major utility systems (power lines, water tanks)</td>
</tr>
<tr>
<td>Parking lot</td>
<td>Court play area</td>
</tr>
<tr>
<td>Court type play area</td>
<td>Formal turf field play</td>
</tr>
<tr>
<td>Multi-use trail (8' wide)</td>
<td>Shade structure</td>
</tr>
<tr>
<td>Maintenance road (8' wide)</td>
<td>Equestrian facilities</td>
</tr>
<tr>
<td>Unleashed dogs on trails</td>
<td>Fishing pond</td>
</tr>
<tr>
<td>Shade structure</td>
<td>Amphitheater</td>
</tr>
<tr>
<td>Equestrian facilities (corral etc)</td>
<td>Restroom facilities</td>
</tr>
<tr>
<td>Fishing pond</td>
<td>Combined Equestrian/bike trails</td>
</tr>
<tr>
<td>Day camp facilities</td>
<td>Native trees</td>
</tr>
<tr>
<td>Amphitheater</td>
<td>Historical trail</td>
</tr>
<tr>
<td>Archery</td>
<td></td>
</tr>
<tr>
<td>Dog run area (fenced)</td>
<td></td>
</tr>
<tr>
<td>Equestrian trails (8' wide)</td>
<td></td>
</tr>
<tr>
<td>Arboretum</td>
<td></td>
</tr>
<tr>
<td>Restroom facilities</td>
<td></td>
</tr>
<tr>
<td>Group picnic facilities</td>
<td></td>
</tr>
<tr>
<td>Informal play meadow</td>
<td></td>
</tr>
<tr>
<td>Mountain biking trail (4' wide)</td>
<td></td>
</tr>
<tr>
<td>Family picnic areas</td>
<td></td>
</tr>
<tr>
<td>Historical trail (2' wide)</td>
<td></td>
</tr>
<tr>
<td>Running/jogging trail (2' wide)</td>
<td></td>
</tr>
<tr>
<td>Nature trails and areas (1.5' wide)</td>
<td></td>
</tr>
<tr>
<td>LOW</td>
<td></td>
</tr>
<tr>
<td>Hiking trails (1.5' wide)</td>
<td></td>
</tr>
</tbody>
</table>

**CHAPTER VII**

- 58 -
The reinstatement of irrigation to recreate an informal play meadow at the Pueblo area could have both beneficial and negative impacts on adjacent wetlands and drainage systems, depending on how it is handled. As discussed in the paragraph below, there is also relatively strong interest in making the most of resources such as the existing Joyce Ranch but are as yet undeveloped.

2. Visual and Cultural Opportunities

The inference can be drawn from discussions at the public workshops and task force meetings that the public would support preservation and even the highlighting of the unique ecological, cultural, and visual characteristics of the Park. This includes the open space character of the Park as seen from and in contrast to the urbanized valley floor to the north. In the extension of these existing land forms, such as the two valleys, the sky line of peaks and ridges should receive special protection from all forms of development which add or alter these elements.

General knowledge of workshop participants in regards to the history of the site, and in some cases of its prehistoric characteristics, revealed an interest in seeing this resource "developed" further. This could best be done through a comprehensive natural and cultural history program. This interest also implies that protection and/or restoration of these valued resources should be a high priority. For example, historic buildings, if not in conflict with site character or with historic building codes, should be restored.

In addition to the interest expressed for an historic and prehistoric resources interpretation program, there is a strong interest in a developed natural history interpretive program. There are many natural resources in the Park (described in subsequent chapters) which could become an integral part of such an interpretive program.

Historic Landscape Concept: The wealth of dispersed significant historic and prehistoric sites is such that the concept of an "historic landscape" might apply. While this is a concept which has been applied primarily in national and state historic parks, the richness of Santa Teresa Park resources may make it an appropriate opportunity. This could be applied as an overlay policy zone, similar to that used in land use planning covering the central historic and prehistoric resources zones of the Park if not the entire park. Three primary eras could be involved.

- Native American
- Spanish Rancho
- American Ranching and Mining (up to the mid-twentieth century)

3. Revenue Generation Implications

Santa Teresa Park clearly is a study in contrasts when it comes to revenue generation. On the one hand, the golf course is a major generator of income which goes not to Santa Teresa Park, but to the County Park general fund. The rest of the Park contains little that generates significant funds. As noted in Chapter VI, aside from golf courses, water recreational uses are the most lucrative in the Park system. By contrast, Santa Teresa Park is a relatively arid landscape with only one pond near the golf course driving range. Uses which hold moderate promise for revenue generation exist, at three or four sites, at the perimeter of the existing property. There should be a considerable "market" for large group gatherings, making use of combined indoor/outdoor socializing and picnic facilities. In addition to social groups and clubs, there is demand for...
from corporate group facilities for hosting groups of up to 500 people. The Norred Ranch, the Rossetto Ranch, and the area identified as the East Meadow (currently used by the archery groups) all have the potential to accommodate this sort of use.

Because of the existing combination of parking, restroom facilities, tables, dance pavilion, picnic tables, and barbecues units, the Norred Ranch offers great theoretical potential. It should be noted the Park's own analysis of the buildings on the Ranch suggests very few if any of them can be saved. The Rossetto Ranch is only slightly less attractive but only because a considerable amount of work would be required to meet its potential for the same sort of function. Finally, the archery area, for a variety of reasons explained in the next chapter, has the potential such uses possibly conducted in connection with the golf course facility.

In conclusion, without these facilities, the revenue generating potentials of the rest of the Park are limited. These would improve somewhat with the improvement of the Pueblo area as this would certainly encourage or generate more group activity and specially permitted events.

4. **Utilities and Support Facilities**

As noted above, the combination of site limitations and the nature of demand does not suggest a massive increase in water or power requirements in the Pueblo. Improvements to restroom facilities and septic fields would certainly be logical if there is an increase in use by large groups. Even if areas such as Rossetto and Norred were to be acquired and/or developed, for various uses (described elsewhere), they are at the perimeter of the Park and close to existing utilities and other infrastructure. This tends to minimize the capital costs for such improvements. (The water and sewage capacities at the Rossetto Ranch however need further study).

5. **Access and Security**

a. **Through-road:** As previously discussed, (Chapter V, Section E), the Bernal Road extension (a.k.a. "Santa Teresa Park Road") provides a physical connection from north to south (Harry Road) and is available in cases of emergency. IBM allows unrestricted passage to County Park Rangers.

Adding a publicly accessible north-south through road meeting modern traffic and safety standards has been considered. Such would only become a possibility if and when the Rossetto Ranch is purchased. There are arguments why this idea should not be pursued. First, it would bring levels of activity to the center of the Park which would conflict with the goals of the 2020 report and the County General Plan. A through-road would introduce a level of activity which would at least conflict with, if not destroy, the core of the Park as an isolated open space retreat from the adjacent urban areas. It would also, in all likelihood, heavily impact the rich pre-historic resources in the ranch house/swimming pool area.

Other major constraints to this concept include the physical difficulties of getting a road along Fortini Creek (a sensitive wildlife habitat corridor pinched by landslide formations on both sides). This traffic would impact both Bernal Road and the Fortini San Vicente Road accesses.

**CHAPTER VII**

- 60 -
b. Bernal Entrance: An important opportunity does exist to reconfigure the entrance road (south of its intersection with Heaton Moor Road) in a way which could help revitalize the Park/IBM off hours security problem. The switch-back (700 feet southeast of the intersection of Heaton Moor and Bernal Roads) could be turned into a "T" intersection with several benefits. One benefit would be to force downhill vehicles (which generally speed around this corner) to come to a full stop. A 4400 foot straight section upslope of the switch-back could be modified with speed bumps or warning lights and signs. The "T" intersection would then allow the possibility of a road connection in a southeasterly direction could take place along a modified Los Alamitos Canal levee as shown in the cross section (Figure 29). The modification to the levee could also accommodate trail uses. Similarly a "T" section and arterial stop and levee modification could allow a road connection northwesterly to the Buck Norred Ranch.

This reconfirmation would create two sites for a control gate and guard kiosk. One location, (Sketch Plan B) close to the intersection of Heaton Moor and Bernal would provide good sight control north easterly along Bernal and southeasterly along the Santa Teresa Park Road (up to the proposed "T" intersection). It would, however, need to be manned or opened if there were night events at Norred Ranch and access to the Ranch were along the Los Alamitos Canal levee. The second (Sketch Plan A) could be at the "T" intersection. This could allow for closure of the Park at night but operable with electronic devices for those authorized vehicles traveling to the Muriel Wright Residential Center or the IBM facility. IBM does not staff its kiosk at night but if it were willing to do so and the gates were not "carded" at the proposed kiosk, this might solve the current security problem (the inability to control use of the Park after dark). IBM has stated that nighttime staffing is not acceptable. As noted in Section VIII A (following) a smaller control kiosk (similar to the Lake Shasta Reservoir Boat Launch kiosk) could also be built at the Eossetto Ranch or south entrance off Fortini Road, should the Rossetto properties be included in the Park.

East Meadow: The "T" configuration is also an important part of two alternative access routes to the East Meadow, (currently the archery area). These are:

(1) A road along the Alamitos Canal levee (modified) to a point 200-300 feet east of 8th tee of the golf course. The route would then descend off the canal bench (which drops into a syphon at that point) and skirt the northerly edge of the existing pond. After that, it would be aligned along the southern edge of the driving range where taller fences might be required as a protection from flying golf balls. A few hundred feet further east the road would have to leave the canal alignment and skirt along the south side of another tee and terminate at what is now the Bowmar's parking area. The total distance however is substantial, 6,500 feet or 1.2 miles.

(2) A second possibility of providing vehicular access to the East Meadow area is directly off the intersection to Santa Teresa Boulevard and the Los Alamitos Canal where, again, the reconfigured canal although outside the current park boundary, could provide reasonable access along a low speed driveway type of road. The distance from Santa Teresa Boulevard to the Park boundary is approximately 5,500 feet (0.7 miles).

CHAPTER VII

- 61 -
The major limitation of the two prior alternatives is likely to be the cost. The distance from the proposed "T" intersection and East Meadow parking lot would be approximately one mile. The advantage of these two routes is that they would impact the adjacent neighborhoods minimally.

Two other opportunities for accessing East Meadow include:

(3) Continued use of the Bayliss Avenue access off Avenida Español which has a direct connection to Santa Teresa Boulevard and provides access at the current gate to the archery center.

(4) A route through the golf course. There is a possibility of extending a road from the most easterly end of the existing paved parking lot. It would continue along a southerly service road and then follow the existing Los Alamos Canal alignment.

These different access possibilities relate to three possible recreational use variations for the East Meadow area in general which are described in the "Recommendations Section." Their feasibility depends to some extent on the relationship between the uses proposed and golf use.

The western alternative could impact golf play, in some areas, depending on its exact configuration. Of the two alternatives, the existing entrance would require at most, refurbishing and an upgrading of new pavement, whereas the extension from the existing golf course parking lot would require a new road bed and paving for a distance of approximately 2,500 feet.

6. Operations and Maintenance Opportunities

a. A clear implication can be drawn from the discussions regarding such uses as soccer, biking, equestrian access in that there could be conflicts between uses depending on two factors: the number of people involved, and the characteristics of the use imposed on the landscape. The flatter, more usable areas of Santa Teresa Park are relatively limited compared to the population base which is close at hand, particularly on the north side. In addition to this, recreation use characteristics are constantly changing; as evidenced by the increasingly significant demand for mountain biking trails. The implications of this are that there should be a physical or temporal separation of uses where there are potentials for conflict. The temporal separation of course means that some uses that require permit and approval by park administration can be scheduled to avoid conflict.

b. Maintenance: The most important implication of maintenance demand is the clear need for a full service corporation yard somewhere in the Park. Approximately 1.5 to 2.0 acres (more than is feasible at the Muriel Wright Residential Center) would be needed. In addition, because of the natural grouping of physical and viral conditions, a zone approach to management should be developed. This is also appropriate should staffing increases become possible. In this event, it will become easier to coordinate scheduled uses with the location and number of management zones which the Park staff would be able to handle at any given time. The zone approach would also assist in establishing appropriate maintenance policies. Since the zones would reflect generally consistent topographic conditions and other related environmental

CHAPTER VII
- 62 -
limitations, maintenance projections and staff allocations could be based on careful evaluation of the potential physical impacts of various anticipated uses on each zone.

c. Staffing Opportunities: The implications of the general conditions of the landscape and of park improvements as they stand now are that current staffing levels are inadequate to meet even the most minimal management and maintenance needs of the Park. The various levels of development obviously entail a commitment on the part of staff, relative to the needs implied by such development, in terms of both improvement maintenance and management of natural resources. Conceptually speaking, there are three levels of staff which can be related to either qualitative or quantitative conditions or increases for the Park.

(1) **Existing Level**: Existing levels of staffing are clearly inadequate to deal not only with primary management needs of patrolling but secondary needs such as erosion control, reforestation, promotion of rare and endangered habitats, resource management, mechanical fire fuel reduction etc. In fact, it might be argued that existing maintenance needs in the Park are enough in excess of staff capacities that some facilities should be abandoned or removed. For example, maintenance needs for some ad-hoc trails in the Ohlone and Hidden Springs areas are substantial. Some of these trails, it could be argued should be closed, until such time as there is adequate staff augmentation.

(2) **Level Two**: Assignment of at least one full time ranger would have two effects. One would be to assist in or reduce the cost of special patrols in basic maintenance and policing. Secondly, the very presence of a full time ranger would have a beneficial psychological impact on park users of all ages. Also, some combination of contrasting concepts for the Park equestrian/hiker use will require monitoring in order to assess the optimum design for such uses in the future. Such efforts would be greatly enhanced by the assignment of a full time ranger.

(3) **Level Three**: Level three involves substantial increases in staff. These would have to be directly related to characteristics of improved facilities and increased use. Different combinations of uses and areas imply different stuff skills, especially with respect to interpretational versus or ir tandem with recreational uses. Santa Teresa is a more centralized location for the staff unit relative to Calero and A/Q Parks.

CHAPTER VII
- 63 -
VIII. MASTER PLAN
The following improvements, based on analysis and discussions summarized in the preceding chapters, reflect the desires of the community and Park staff as well as consultant team input. In total they represent more improvements than are feasible either from current park funding or management capabilities, and therefore have been divided into three phases. The environmental impacts are being reviewed by others in a study in progress. This chapter is divided into six major sections: A. Recreation Nodes, B. Trails, C. Resource Management Zones, D. Operations and Maintenance, E. Acquisition Potentials, and F. Preliminary Cost Estimate. The first two sections describe the improvements in some detail, and their probable implementation over the three phases. Preliminary estimated costs for these recommendations are itemized in the last section. Recommendations for Resource Management Zones, Operations and Maintenance and Acquisition Potentials are less precise regarding phasing and costs.

A. RECREATION NODES

Recreation nodes are sites that, for a variety of reasons, are or have the potential of becoming a significant feature that should be created or improved for public enjoyment. Nodes range from sites big enough to accommodate large groups (up to several hundred) and have the potential for significant revenue generation, to sites that may inform a solitary visitor of the ecological or historic value of a point along a trail.

Of the 19 recreation nodes described in this section, five (Joice Bernal Ranch, Norred Ranch, East Meadow, Pueblo Picnic Area, and Rosetta Ranch) are large enough for revenue generation through group facility reservations, eleven are relatively minor, two are major entry points, and one, Coyote Peak, is of singular significance. These recreation nodes are recommended for implementation in three phases which roughly correspond to 5 to 10 year periods.

Phase 1 (1992-2002)

Phase 1 improvements will secure the Park at Bernal Road and establish the revenue generation potential of three major recreation nodes (i.e., Pueblo Picnic Area, Norred Ranch, and Joice Bernal Ranch). Securing the existing entry with a Bernal Gateway will ensure control over unauthorized entry and stem the current unauthorized nighttime use of the Park environment. In addition, summer or holiday day use fees could be collected to generate revenue. It is extremely important that significant improvements to highly visible locations (e.g., the Pueblo Picnic Area) are implemented in this phase to "justify" fee assessment to the public.

Other improvements in this phase include virtually all the minor recreation centers (i.e., Bernal Hill, Bernal Mine, Santa Teresa Springs, Trench Hill, Pygany Oak Forest, and the three Points of Geologic Interest). Improving these scattered minor sites would begin to establish a perception of continuity and recognition of a single park, for relatively low capital expenditures.

Improvements proposed for Coyote Peak supplement those improvements that the developer of Calero Estates is expected to implement at the date of this report. As part of the agreement to place a privately owned 212,000 gallon water tank on the Southwest flank of Coyote Peak, the developer is required to install various site improvements.
Phase 2 (2003-2001)

PENDING the disposition of the Rossetto life estate agreement, the improvements for the Rossetto Ranch are scheduled for this Phase. Like the Bernal Entry Gateway, the Rossetto Entry Gateway will secure access to the Park from the south and allow the collection of day use fees. The ranch site should be developed at this time as an additional group use site and therefore a major revenue generator.

Improvements in the Upper Rosseto Valley and along Fortini Creek (i.e., two pedestrian bridges, one bridge for maintenance vehicles, and the Big Oak Valley interpretive signs) north of the ranch comprise the balance of the Phase 2 work in the southern half of the Park. Along the northern perimeter of the Park, off of the Los Alamillos Canal Trail, the Oak Creek Picnic Area should be developed as a "reservation only" day use facility.

Phase 3 (2009-2014)

The East Meadow Picnic Area is the only major recreation node developed in Phase 3. Isolated at the far northeastern corner, the East Meadow facilities require numerous site improvements as well as a means to control its access from Bayside Drive.

The Pyzak parcel has been noted for acquisition (Section E, Acquisition Potentials) in this Phase.

RECREATION NODE DESCRIPTIONS

1. Joice Bernal Ranch

Because of its history and its potential as an interpretive feature, the Joice Ranch is considered an important interpretive and educational node. The house and barns are considered historic structures by the County Historical Society. If restored and brought up to required building department standards, the facility could be improved and operated by community serving non-profit groups whose goals and programs are consistent with those of the County Parks Department. Buildings could be used for meetings, classes or small social events and the grounds for agricultural of historic demonstrations, community vegetable gardens and the like. The ranch could illustrate original agricultural uses of the area as well as its relation to the history of the Santa Teresa Hills. In the concurrent EIR study consideration will be given to impacts on the immediate neighborhood, although a low traffic volume is anticipated with this use.

The Manila Drive frontage on the County Park's property complicates access to the site as only the northern half of the roadway is improved. When the adjacent subdivision was developed in the '70s, the subdivision grading left the farm site and buildings near the intersection of Camino Verde and Manila Drive at about 8" above Manila Drive's finished grade. Additionally, the compaction of the site and the building locations limit vehicular access and will require engineering improvements. Development of the facility may require road improvements to complete Manila Drive. There is existing auto access, but it is very limited. Parking for 10-15 vehicles for normal operations can be accommodated on the fairly flat area between the ranch complex and west property line. Additional public parking for events would should be located off-site at the Norred site, with pedestrian and animal access via a multi-purpose trail along the Los Alamillos Canal. Future acquisition of the nearby Pyzak property may provide additional parking closer to the ranch.

CHAPTER VIII

- 65 -
Improvements to the site could include rehabilitation of the original structures to acceptable but "historic" standards. New structures, new parking, and site accessories would be the responsibility of the non-profit tenant. The County would be responsible for some of the structural improvements and the utilities upgrading. Elimination or rehabilitation of the existing structures has not been decided; if the old ranch house building is not used as a residence, it may be used as class rooms, offices or meeting rooms. Strengthening or rehabilitation of the barns does not appear feasible from the architects' report but could be accomplished given adequate funds and support by an interested tenant. Restoration of gardens, stables, pastures for grazing livestock, planting of an orchard as well as the necessary fencing and site accessories (bike racks, drinking fountains, benches, and interpretive signage) should also be the responsibility of the tenant. Maintenance of the facilities would be the responsibility of the educational groups using them and would be monitored periodically by the County Parks Department. New structures such as restrooms, arbors, or shade structures, are appropriate if architecturally coordinated with a historic theme. Restoration of the gardens typical of the turn-of-the-century era would be consistent with the theme.

It should be noted that the Joice-Bernal Ranch and barns are located at the toe of what has been determined to be a large landslide. Any grading should be kept to a minimum or avoided. Any landscaping or planting involving trees, shrubs, or turf should be irrigated if drainage improvements which preserve upslope stability are included with the proposal and development. The site is also currently used as an access to both the Park interior and the Los Alamitos/Coyote canal trail.

2. Norred Ranch

Prior to its recent acquisition by the County, the Norred Ranch had operated as a private group reservation facility that was available for company parties, dances and horseback riding. Fourteen buildings, a swimming pool, riding areas, and service roads currently occupy much of the 19.5 acre site. The buildings include two houses, offices, stables, and a variety of structures which served the group picnicking function. Most of the group use structures (restrooms, "general store," clubroom, offices, swimming pool) are concentrated in a narrow canyon. The animal facilities are generally located on a rise northwest of the canyon; parking terraces are cut into the hillside to the northeast.

Despite the popularity of its past use and the large number of existing buildings, the Ranch will require extensive modifications to function as a major recreational node that meets Parks Department Standards. From an operational standpoint, public access through a residential neighborhood is contentious, on-site parking is underdeveloped, and the majority of the buildings are in extreme disrepair. Yet, the general location, its sheltered nature, the relatively intense tree cover (some of which is non-native), the possibility of on-site parking, and its proximity to existing trail systems and historic sites all favor the Ranch as an attractive recreation node that should continue to accommodate large groups. As noted in the Revenue Generation section, this is one of the facilities which can generate positive income for the Parks Department through rental for large

CHAPTER VIII

- 66 -
group picnics of up to 500 people. However, in order to provide safe facilities which conform to local and State codes, extensive rehabilitation is required prior to opening the site to the public.

The renovation of the Ranch will involve improvements to the access, parking, structures, and the site. During Buck Norred’s tenure as operator of the Ranch, the great number of visitors who arrived via Heaton Moore Drive provoked local complaints over traffic and noise. Visitor parking had been accommodated on an adjacent vacant parcel (Gomes property), however the recent sale of the property will preclude its continued use as a parking resource. On-site parking was possible on three underdeveloped areas terraced into the hillside, but was accessible only along a narrow, steep road. The structures had been evaluated in 1989 by an architectural/engineering consultant to the Parks Department who found that all but five of the structures were unsafe and in violation of health and safety codes. The consultant further recommended that those unsafe
structures should be removed. The improvements described below are recommended for Phase 1 implementation and would cost approximately $1.9 million.

The five structures (the pavilion, arena, barn one, stable, and swimming pool) identified by the existing Facilities Report as "worth saving" should be rehabilitated. In addition, new restrooms, shade structures and new or upgraded utilities will be necessary to support the group reservation function.

The swimming pool, when rehabilitated, can become a popular focus of the group reservation picnicking. The Parks Department, however, will need to develop a policy regarding the provision of a lifeguard as a condition for group reservation use. Careful consideration should be given to the liability concerns of this type of activity. Like at the Rossetto Ranch, the pool should be available only by reservation for large events with the group paying permit fees that include the lifeguard's wages. Other specific site improvements (native plant materials, selective removal of non-native plants, irrigation systems, signage, water fountains, paths tables, barbecues) associated with the group picnic area can only be noted in general terms; a future Site Planning/Design study is required for more detail.

Most of the structures to be saved are closely associated with equestrian use and should become the core of new equestrian facilities (riding rentals and facilities for events) for the Park. These larger facilities will complement the activities at the nearby Joice-Bernal Ranch. Large animal events that are too big for the Joice-Bernal Ranch can be easily accommodated here; people and animals will be able to move along the Los Alamitos Canal Trail which will connect the two locations. Other multi-use trails (Old Wagon Road and Hidden Springs Trails) will enable equestrians and other Ranch users to explore the Park.

Access to the Ranch that avoids the residential neighborhood will require the construction of a new entry road off of Bernal Road. To minimize the grading impact, a narrow (12 feet wide) one-way road is needed to access the parking terraces from Bernal Road. Leaving the Ranch, a new one-way exit from the parking lot would parallel the Old Wagon Road Trail and the Los Alamitos Canal Trail back out to Bernal Road. As there are landslides in this vicinity, detailed geotechnical and siting studies will be required to determine the exact alignment. The parking terraces should be upgraded (including repaving, erosion control measures, and screen planting) to accommodate up to 150 vehicles. Access to the group picnic facilities in the canyon below and to the equestrian facilities on the next ridge would be restricted to drop-off and service vehicles and would follow the existing service road. The Heaton Moore Drive entrance would be restricted to service and maintenance uses.

A small ranger's office and corporation yard is needed to provide the necessary operations and maintenance base for the Park-wide Phase 1 improvements. This function can be accommodated to a limited extent on the northwest ridge of the Ranch. As this location lacks direct access (along the good road) to the rest of the Park, it is viewed as an interim development for Phase 1. The principal Ranger Station, Ranger Residence and Corporation Yard is scheduled for Phase 2 implementation at the Rossetto Ranch.
3. Oak Creek Picnic Area

The Oak Creek site, roughly 5 acres in size, is located in a small valley at the base of Oak Creek Canyon near the eighth tee of the Santa Teresa golf course. It can easily be made accessible for vehicles along what is now the Alamitos Canal maintenance road from nearby park entrance at Bernal Road. The canal levee is wide enough for some form of combined low speed road and multipurpose trail (see Figure 31). Parking for about 15 cars can be accommodated close to the proposed road/trail.

The picnic area would occur at what was a nature trail station (no longer maintained). Within the Oak Creek area there is a nice sense of seclusion and separation from the golf course due to vegetative screening and a low rise between the picnic area and eighth tee. The lush vegetation of the golf course can be seen in the distance. This rise would also hide the parking from the picnic area from the slopes surrounding the proposed picnic area. These site improvements are recommended for development in Phase 2.

The main function of this small, pleasantly oak-shaded valley, would be to provide a moderate sized revenue-generating group picnic area as a replacement for the defunct White Oak Picnic Area. Approximately seven picnicking sites for up to 60 people can be accommodated in the area. Site amenities such as tables, benches, barbecues, drinking fountain, pre-fabricated self-contained
toilets would be necessary. To ensure proper siting of developed amenities existing landslides need to be mapped more precisely. There is also room for a small adjacent play meadow. In general, and in order to minimize the impact on the adjacent golf course operation, the access road and picnic facilities should be open only on weekends or by special use permit.

4. East Meadow

This area, near the easterly limits of the Park, is currently used as an archery range, normally leased to the Black Mountain Bowman Association. This area is roughly 12 acres in size with a variety of foothill and meadow target ranges. Since the Bowmen have expressed an interest in relocating out of Santa Teresa Park, the area has great potential for additional public uses. The existing facilities are distributed throughout the 12 acres and are generally poorly maintained. The meadow area is planted with Eucalyptus trees which look out of place against the oak covered hills in the background. All improvements described below are recommended for Phase 3 implementation and will cost approximately $425,000 (1991 dollars).

The improvements include improved vehicle access and parking, family/group picnic areas, signage, restrooms, an irrigated general play area, a restored meadow and a dog run. Auto access via the existing entrance off of Baylis Avenue should be designed with a low visual profile and keyed access as it could not be monitored from the proposed entry kiosk on Benson Road. The existing parking lot should be repaved. A small expansion and more efficient layout can provide up to 70 spaces. These improvements should include efforts (screen planting, fencing) to reduce the negative impact on the neighborhood.

The picnic areas (2 family, one group) would have to be placed in one of several natural bowl-like landforms at the base of the hills and away from the northern boundary in order to avoid impacting adjacent residential areas. A group picnic facility sited south of the Los Alamos Canal is recommended for its potential to generate income in connection with special events at the golf course. With adequate distance from neighboring residences, the facilities can include pavilions with shade structures designed to accommodate open air gatherings, seminars and meetings.

All of the foregoing would require the addition of toilets, drinking fountains, and new shade structures. Other necessary site accessories include tables, barbecues, trash receptacles, hitching posts and bike racks. Site development costs include meadow restoration, signage, and planting.
5. **Pueblo Picnic Area**

This 27-acre site is the most well-known area in Santa Teresa Park and was once well used for individual picnics as well as for large special events. It is readily accessible from Bernal Road and is located at the junction of several trails. However, many of the existing facilities, including the irrigation system, the restrooms, the parking and the picnic areas, are inadequate or in need of repair or reorganization. Several areas within the site have high interpretive value and can be developed as part of an interpretive program. All improvements described here are recommended for Phase 1 implementation.

CHAPTER VIII

- 71 -
No additional vehicular access is necessary. A 75 car parking lot at the terminus of the access road should be removed, relocated and expanded to 83 spaces further to the east. Four smaller lots can provide approximately 120 additional spaces for a total of 200 spaces, or a 17% increase over the existing condition. The nearby corral receives little if any use and should also be removed since it may be located on an Ohlone Indian village site. A water trough and hitching posts should be sited to avoid any prehistoric remains.

Group and family picnic uses could be expanded or qualitatively improved particularly along the northern perimeter of the area. Two group picnic areas for approximately 100 people each, and one family picnic area with approximately 15 sites along the new riparian woods, are easily accessible from the large terminal parking lot. Another group picnic area for approximately 100 people can be placed between two small parking areas on the northwestern edge nearer the Wright Center access drive. Site accessories (picnic tables, barbecues,
trash receptacles, bike racks, and benches) would still need careful design and placement so as not to detract from the open visual quality of the gentle bowl forming the picnic area.

Expanded play meadow areas, along the northern edge of the meadow (adjacent to the existing perimeter road) would enhance the visual approach to the site. Irrigated grass would be adjacent to the picnic areas but limited to a size (one to two acres) suitable for active play. The energy input (water, fertilizer, mowing, manpower) necessary to maintain irrigated grass should not be used indiscriminately but confined to specific activity zones. Less active zones should receive landscape treatment requiring less energy. The drainage from the expanded meadow area should be intercepted by an artificial wetland or sump and filter system to prevent any applied nutrients and pesticides or roadway runoff from reaching the existing freshwater seep, the new wetlands and the replanted riparian forest areas.

Large special events such as the Girl/Boy Scout jamborees/camporees and cross country track meets can be better accommodated with a shade structure and "amphitheater." The multi-use shade structure could serve as a viewing area located in an area taking advantage of the bowl-like form of the existing meadow and thus could additionally serve as a stage or a podium for an amphitheater.

Special events would benefit from "service pads" which provide power, telephone, water, and sewage holding tanks or septic hookups for truck transported trailer modules. These modules would provide space for administration, first aid, group food service, audio visual equipment, etc. for events that attract several hundred attendees. Such large events would need to provide additional portable toilet facilities. Relocation, rehabilitation, and/or additions to the existing restrooms would require upgrading the existing septic system. Should the septic system prove inadequate for expansion, semipermanent "modular" restrooms are recommended. Large events would exceed the capacity of the permanent restrooms and should provide temporary portable units.

The water service from the existing water tanks will require an additional source to supply the expanded facilities and landscaping. While the two existing tanks are intact, there is some concern over the long term dependability. In addition, the existing supply is shared with the Muriel Wright Center. A new water tank is recommended over the current uncertainties regarding the amount and dependability of water from the proposed Calero Estates water tank at Coyote Peak. Also, the careful siting and installation of a new 40,000 gallon tank would involve costs comparable to installing water service connections to the private Calero Estates' source sited over a mile away.

The area has potential for much more in the way of improved interpretive facilities. An important opportunity exists for creation of an "Ohimone Village" interpretive site in the approximate vicinity of an Oak tree cluster in the existing family picnic area. Other interpretive opportunities include identifying the nearby slope movement, the existing fresh water seep area (a seasonal wetland) enhanced with meadow irrigation runoff, and the riparian forest (replanted in the swale) that may have once existed in the area.

Although not in direct conflict, the existing non-native trees create visual confusion in terms of the goals of a comprehensive interpretive program. The non-native trees are not substantial enough to provide sufficient shade. The shade provided by the proposed riparian forest would be more than adequate to make up for the removal of these existing trees, and the riparian vegetation tends to grow and establish itself quickly.

CHAPTER VIII

- 73 -
Downstream, south of the Pueblo Picnic Area, the banks of Fortini Creek should be stabilized in Phase 1 to prevent continued erosion. Here, a pedestrian bridge would permit a safe crossing for the Pueblo Trail to join the Old Wagon Road Trail. Severe erosion east of the Pueblo Area has created a gully that should also be regarded and stabilized as part of the Phase 1 improvements to the area.

Trails that begin or intersect at the Pueblo area should be signed to identify names, routes and use designation (see section B Trails). Of particular interest in the Pueblo area are the Trench Hill Trail and a cross country running route. The Trench Hill Trail is proposed as a whole-access trail which leads to an overlook at the top of Trench Hill. It has the advantage of vistas and views overlooking the Pueblo area and Rossetto Canyon, but still gentle enough to be accessible to the physically challenged. The cross country route would begin and end at or near the proposed multi-use shade structure. It would follow portions of several trails that encircle Trench Hill; spectators can follow the action from the vista point.

6. Rossetto Ranch

This 187 acre ranch, recently acquired by the county, presents a wide variety of recreational and interpretive potentials. Most of the lower valley floor which includes the Rossetto's house, the old ranch house, the access road, and all of the existing site facilities (out-buildings, swimming pool, existing picnic facilities, lower Fortini Creek) is within a ten acre "life estate". Full development of this site would be dependent on (1) the Rossetto's life estate, and (2) the City of San Jose's future road development if/and when the lower Almaden Valley is annexed into the city's limits. Access to the ranch is currently through an easement off of San Vicente Avenue. Improved access will require some road widening and screening to mitigate the impacts on the neighboring properties. Any improvements to the Rossetto Ranch house and site (recommended for Phase 2) can only be developed pending the disposition of the life estate.

Vehicle access to the ranch from San Vicente Avenue requires a twenty foot minimum width easement for a quarter of a mile along the northwest edge of the adjacent property. Securing the use of this easement for public use should include provisions to extend public utility services should the City of San Jose incorporate this portion of the Almaden Valley. Parking for approximately 20-25 cars is possible on the existing terrace cut on the slope just west of Fortini Creek. Additional parking for 25 cars might, pending study of more detailed mapping, be accommodated with some grading.

Facilities at the Rossetto Ranch would include a ranger residence/office/museum (modifying the existing structures), a corporation or maintenance yard, group picnic facilities, and a renovated swimming pool. While the existing Rossetto residence building appears adequate for rehabilitation and use as a museum or ranger residence, the same may not be true of other out-buildings and

CHAPTER VIII

- 74 -
residential structures in the area. Access to them for evaluation has not been possible; however, they appear in disrepair, and several appear to be abandoned. To allow access to the entire Park, a bridge capable of carrying Park maintenance vehicles should cross the creek north of the Ranch's picnic area. A smaller, pedestrian footbridge can link the office/museum with the trail and parking area.

Reservation type group picnic facilities for approximately 120 people would logically be located in the lower portions of the Rossetto Ranch at the site of the existing facilities. Improvements in connection with the swimming pool/group picnic area include seating, benches, tables, shelters, toilets, upgrade of utilities, and the addition of irrigated grass in limited areas. An existing meadow is usable as a play field area perhaps with an outdoor stage or an amphitheater, making use of existing topography. The swimming pool should be rehabilitated, however, its use will depend on budget and policy regarding a lifeguard since this type of recreational activity is not normally administered by the County Parks Department. Like at the Norred Ranch the pool should
be available by reservations only for large events with the group paying permit fees to include the lifeguards' wages.

There are numerous interpretive opportunities with historic and prehistoric sites including possible native American burial grounds and work sites. The Old Wagon Road route passes through this canyon area and should become another interpretive feature.

Because of the narrowness of the canyon, an occasional retaining wall or other erosion control or bank stabilization device will be required. Fortini Creek is geologically young and there is evidence of active and ongoing erosion of the stream banks. Most of the vegetation, other than grasses, is limited to the valley floor and creeks. The addition of native woody vegetation to the surrounding hills is recommended to complement the high level of interpretive values at this site. The adjacent slopes appear to have been heavily grazed and a program of reforestation should be a component of resource management for this area.

7. **Upper Rossetto**

This area is approximately 4 acres in size. It consists of the gentle slopes surrounding a small tributary creek to (and west of) Fortini Creek (between Fortini Creek and IBM Almaden property). Because of its proximity to the Rossetto Ranch and to the Stiles Ranch Trail (as well as the Old Wagon Road Trail), which could serve as part of the Bay Area Ridge Trail, this area is best used for walk-in picnic sites adjacent to the small naturally irrigated open meadow areas. The "Pygmy Oak Forest" and overlook is an attractive nearby natural interpretive site.

Site accessories would include a maximum of 5 picnic tables, trash receptacles and signage. These improvements are recommended for development in Phase 2.

8. **Recreational Nodes – Minor**

In contrast to the major recreational centers discussed above, there are a series of minor nodes whose features, while important enough to distinguish them along given trail routes, do not require major improvements. None of them, for example, involve automobile access, parking, or new major utilities such as restrooms. In some cases the only improvement might be an interpretive sign, bench, or hitching post for horses or bicycles. Improvements to Bernal Hill, Bernal Mine, Trench Hill, Pygmy Oak, and Santa Teresa Springs are recommended for Phase 1. Site improvements to Santa Teresa Springs, Big Oak, and Big Oak Valley are recommended for Phase 2. Note that improvements to Santa Teresa Springs are spread over two phases.

a. **Bernal Hill**

This hill is the highest peak other than Coyote Peak in the Santa Teresa Range and is located rather close the Puente area. This vista point has attractive views to the north of Santa Clara Valley. The site deserves recognition as a vista point, rest area and destination point. It is also in the general vicinity of a series of prehistoric petroglyphs, grinding holes, and middens which could be noted with an interpretive plaque or sign. It should be noted that the highest point of Bernal Hill is on private property. The improvements --two benches, signage and a small area of decomposed granite pavings-- will be sited approximately 650 feet directly north of Bernal Hill.

**CHAPTER VIII**

- 76 -
b. Santa Teresa Springs

The Springs, an important historic feature, are rather unimposing and
delicate due to their location at the foot of a landslide. In the Springs
area, there are still remnants of the actual rock exposure and water
source as well as the memorial niche built by the descendants of the
Bernal family. The first phase work includes some slope stabilization,
handrails and a permanent cover over the cistern. Slope stabilization and
erosion control planting generally associated with the trail to the Springs
should take place in the second phase in addition to benches, signage,
timber steps, bicycle/horse hitching post, fencing and some decomposed
granite paving. A new access trail will have to be built to replace the
existing ad hoc trails which cross overly steep slopes.

c. Bernal Mine

Already situated on Park property the remains of the mine works are not
quite as extensive as the nearby Santa Teresa Mine, but nevertheless
interesting from a historic standpoint. Here again, public understanding
and access would be increased by the construction of trails and the
installation of interpretive signs or plaques.

d. Trench Hill

Just to the southeast of the Bernal Road there are interesting trenchlike
landforms apparently created in conjunction with mine exploration.
There are no known archeological or historical values involved here but
the visual interest of this landform may make it worth further
investigation at some point in the future. This hill could be reached by
the disabled from the existing vista point off of Bernal Road and from
the Pueblo Picnic Area. This trail would be a continuation of a whole
access route that was referred to in the description of improvement to
the Pueblo Picnic Area. The terminus of this improved trail should
include areas for pedestrians and disabled persons with a limited number
of special features such as wheelchair accessible drinking fountain, vista
signage, and benches. The vista points and paving should be as level as
possible and designed for safe maneuvering and parking of wheelchairs.

e. Pygmy Oak Forest

Because of unique geologic, soil and water conditions, a small grove of
stunted Quercus garryana, California Live Oak, is prominent on a small
serpentine ridge just south of Trench Hill. This site would make an
excellent interpretive viewpoint among the Pygmy Oaks and masses of
Oprina wildflowers (and other seasonal wildflowers), with a pleasant view
of Almaden Valley. The only improvements necessary are interpretive
signage, benches, railings, and narrow "cul-de-sac" pedestrian pathways
designed to minimize negative impacts on the oaks and other vegetation.

f. Big Oak

This site, in the vicinity of a possible prehistoric habitation site, is found
at the juncture of Fortini Creek and the perennial stream flowing out
of Big Oak Valley - the single largest complete watershed in the Park.
The actual "Big Oak" is possibly one of the largest within the current
limits of the Park but appears to be in decline. Nevertheless the site is
one of the most visually isolated from IBM and other urbanized areas
surrounding the Park. The area can function as a trail head for a "cul-
de-sac" nature trail which would enter into Big Oak Valley via a footbridge over Fortini Creek. Aside from the footbridge, only modest improvement would be required such as a bench, interpretive plaque, a hitching post, and a small area with decomposed granite paving. An interpretive plaque is also recommended for the end of the nature trail in this valley.

9. Points of Geological Interest

The next three sites are all PGIs or "Points of Geological Interest". They all require only minimal improvements: a bench, a hitching post for horses or bicycles, and an interpretive sign. The Laurel Springs PGI has an existing bench and a tether for horses that are well used.

a. Slide Creek PGI

This site, located at the base of a major landslide, just at the end of the golf course driving range, and at the base of the Coyote Peak trail, should emphasize the pervasive nature of landslides in the California coastal ecosystem. Signage would explain the interrelationship of soil mechanics, ground water and surrounding vegetation.

b. Laurel Springs PGI

The focus here would be on the nearby massive landslide and cliff escarpment. Compared to Slide Creek, there might be greater emphasis here on landform, land slippage and ground water because of the springs in this area.

c. Rocky Ridge PGI

Most of this area, at the top of a ridge, is currently in private ownership (Lagatutta 44 acres). It is of great interest geologically because of the exposed serpentine rock found in relatively thin sheets on edge spread over several acres. The formation has a "mooncape" quality and is a suitable habitat for the endangered Bay Checkerspot Butterfly. In addition to uplift mechanics, the role of serpentine rock in the collision of the Pacific and Continental plates is dramatically expressed here. An interpretive plaque should be located just outside the privately owned parcel.

10. Coyote Peak

An agreement between the county and the developer for Calero Estates has allowed the development of a 2/12,000 gallon water tank on the eastern flank of Coyote Peak. The tank itself will be positioned to minimize visual impact against the peak. The agreement has provided for the addition of small earth berms, site accessories, and landscaping atop the peak to be installed by the developer. Depending on the view angle, these improvements will reduce to some degree the presence of the tank to visitors to the Park. For additional interpretive value, a piece of artwork that heightens the sense of place (e.g. a sundial, compass, or other landform sculpture) would be an appropriate addition to this highest point in the park. Vista signage and additional native plant materials should supplement the developers improvements.

11. Rosetta Entry Gateway

CHAPTER VIII

- 78 -
This is the principal vehicular access point from the Almaden Valley to the south. The control gate and guard house/kiosk (similar to the small kiosk at Calero Reservoir Park) will provide security and enable revenue generation. These structures should be set up at the end of the easement, a quarter of a mile from San Vicente Avenue. Road widening, grading, new utility hookups, and signage would be included in the improvements that can only occur at the close of the Rossetto's "life estate" agreement. For the purposes of this master plan these improvements are recommended for Phase 2 development concurrently with the prior site improvements proposed for the ten acre life estate site. The ranch property, however, can be entered and used for passive recreation while preserving the integrity of the life estate. In Phase 1, the development of a small parking area off of San Vicente Avenue and trail work will facilitate access while honoring the life estate.

12. Formal Entry Gateway

This entry gateway should be composed of a gatehouse/kiosk and a system of gates that would satisfy the requirements of the Parks operations and maintenance as well as the concerns of IBM and the Muriel Wright Center. The gateway should be implemented in Phase 1. As the principal vehicular entry point into the Park these controls will provide much needed security and will initiate the revenue generation aspect of the Park management. The final configuration of the gating may be a modification of those alternatives discussed in Chapter VII. Improvements would include a gatehouse/kiosk, manual and electronically operated gates, utility hookups, roadway widening and grading, and signage.

13. Golf Course

This large facility on the northern edge of the Park occupies approximately 172 acres on the Santa Clara Valley floor at the foot of the Santa Teresa Ridge. It provides an 18-hole course, banquet facilities, clubhouse, restaurant, pro-shop, and parking that are managed and maintained by a private concessionaire.

The golf course has little direct relationship, financially and physically, with the Park. The revenue (approximately $250,000 in 1990) from the golf course lease does not go directly into the Park's operations and maintenance budget but rather is deposited into the County Park general fund. Operationally, it is independent from the larger Park with a separate entry, maintenance staff and infrastructure. Aesthetically and environmentally, the golf course is an artificial environment, visually very different from the woods and grasslands on the Park's ridges. Yet it is a large, well attended recreation node with substantial revenue generation and has, in the past, provided the necessary space for Park-related public meetings. In addition, the wells and pumps that supply water to the Muriel Wright Center, the Pueblo Picnic Area, and the private Calero Estates development are located on the grounds of the golf course.

The relatively new building complex (Clubhouse) and the golf course operations have not provoked any significant complaints and do not appear to require change or improvements in the near future. The proximity of the proposed Los Alamitos Canal Trail along the southern edge of the course offers an opportunity for a physical connection even though there is some danger with the passive Park user coming within range of errant golfballs. Also, the format of golf play (green fees, rigid scheduling for tee times, and precise sequence of play) does not encourage casual movement to or from the fairways, and, from an operational standpoint, access to the course needs to be confined to a single point, i.e., the clubhouse. Thus without compelling reasons to change to the status quo, the golf course should continue in its role as a major recreation node.

CHAPTER VIII

- 79 -
within the Park while operated, as the Park Department may prefer, through a private concessionaire.

Grounds maintenance and additional plantings at the perimeter of the golf course can better reflect the natural environment evident elsewhere in the Park and is addressed in a discussion of resource management elsewhere in this chapter. In particular, the environmental aesthetic of the golf course can be modified by encouraging the use of native plant materials wherever possible and by re-examining the use of nutrients, pesticides, herbicides, and irrigation.
B. TRAILS

As noted in Issues Affecting the Master Plan (Chapter VI), there is no general policy or consensus among County and Regional park agencies in how to treat perceived or real competing trail use. There is some general agreement on the ideal widths for various trail use types. Specific conditions, costs and their physical application prevent overall standardization. There is by no means universal agreement on which of the several user types are compatible. There appear to be three basic approaches to trail usage:

Limited Controls
All trails are open to all users, hikers, bicyclists, equestrians, runners, etc. who may use any trail regardless of user compatibility. Park staff can exercise some control to limit use when conditions become hazardous. However, restrictions based on physical condition, traffic issues or environmental impact are minimal.

Segregated Trails
In this case, where trail resources are extensive enough, certain trails are set aside for a specific trail user groups on the grounds of both environmental and user compatibility.

Controlled Use
This concept usually involves a mixture of restricted or selective use trails and non-restricted or multi-use trails with, in some cases, the inclusion of test trails which involve monitoring or studies of various user combinations and traffic controls over a period of time before permanent user designation. Some agencies have started to monitor test sections in order to develop specific policies and design guidelines or standards. The "controlled" approach appears to be the desired approach among users and is optimal for Santa Teresa Park.

The Master Plan recommendations for trail improvements are described by use designation and phasing. Trails are categorized into four use designations: Multi-use, Selective use, Pedestrian-Only, and Whole Access. Individual trails may have more than one use designation. Typically ideally, for trails with multi-use and selective use segments, a comprehensive trail use sign program designed to fit the surrounding environment should be developed. This would include directional, traffic control and interpretive signage referring to natural resource or cultural values. Implementation of trail improvements are divided into the same three development phases noted for recreation node improvements. Note that individual trails may have improvements that would extend over different phases. Improvements include new trails, access roads, modifying existing trails, revegetating closed trails, roadway crossings, regrading and replacement of water bars, and trail furniture/accessories (beaches, hitching post, gates, barriers, signage).

The four use designations for trails are generally defined by the estimated physical and ecological sensitivity of the land in conjunction with the user demand. Steep slopes, erosion/landslide potential and wildlife habitat are type and amount of use, and access to recreation nodes have been considerations for trail designations. Trails are subcategorized by width and surface. Unless indicated otherwise, all trails are of graded, compacted earth. Often times, combined uses, e.g., a multi-use trail with a road, or a graded earth surface adjacent to a paved surface may occur. Where physical conditions allow, separation of user groups with an appropriate barrier is recommended. Trail designations (see Fig. 32-13) are noted by a letter number combinations: e.g.: M-
PROPOSED TRAILS — USE DESIGNATIONS

PROPOSED LOS ALAMITOS CANAL TRAIL & ACCESS ROAD

CONSULTANTS:
TITO PATH & ASSOCIATES
LANDSCAPE ARCHITECTURE
1402 MONTGOMERY #100
SAN FRANCISCO, CA
TEL. 415-999-0111

FOR:
SANTA CLARA COUNTY
PARKS & RECREATION
DEPT.
1838 LINCOLN AVE.
LOS GATOS, CALIFORNIA
95030

DRAFT MASTER PLAN PROJECT
SANTA TERESA PARK
PROPOSED TRAILS FIG.
& CANAL
MODIFICATIONS
SANTA TERESA COUNTY PARK
FINAL MASTER PLAN REPORT

8DG identifies a multi-use, 8-foot wide, decomposed granite trail, S-4 is a selective-use, 4-foot wide, graded earth trail.

Multi-use - Open to all users, pedestrians (hikers, joggers, runners), equestrians and mountain bicyclists. Typically, multi-use trails are 8 feet wide and surfaced with graded earth. A notable exception is the 4-mile long Los Altos Los Canai Trail (M-8DG) which is surfaced with decomposed granite. In addition, where steep terrain is a constraint, a four foot width (M-4) is recommended, e.g., Stiles Ranch Trail and the lower Wright Center Trail.

Selective Use - Specific restrictions apply for one or more user groups. Restrictions are based on physical limitations (excessive steepness, limited sight distances, etc.), incompatibility of user groups and/or redundant pattern. Typically selective use trails are 4 feet wide graded earth (S-4) e.g., Ohione Trail and the Ridge Trail. Existing multi-use trails may be restricted in use and width and designated to selective use status after further examination and test closures. The Boundary and lower Coyote Peak Trails are examples of test sections that might be restricted due to steep grade and sight-line limitations. At this time, exclusions for particular use groups have not been determined. It would be largely subject to continued study of test closures and Park management policy.

Pedestrian - Only - A subset of the selective use designation, these trails explicitly reserve use to pedestrians only. Open to pedestrians, hikers, and joggers, mainly on single track trails, averaging 4 feet wide (possibly narrower in some locations) in areas of steep slopes, erodable soils and/or visual sensitivity. Only two pedestrian trails are proposed: the Pueblo Nature Trail and the Big Oak Valley Trail. With interpretive signage each would enhance the experience of the visitor in their respective environments.

Whole Access

Not a use designation unto itself, the Whole Access designation would indicate which trails or sections of trail are accessible to disabled and mobility impaired individuals. Accessibility would be designed (all weather surfacings, slopes of 8% or less) into both multi-use and selective use trails, e.g., Pueblo and Trench Hill Trails.

Implementation of the proposed trail system should occur in three phases concurrently with the phase developments for recreation nodes. In general, trail development is concentrated around the central summit and hollows surrounding the Pueblo Picnic Area and along the northern slopes of the Santa Teresa Ridge. South of the Pueblo Picnic Area, the Park is enriched by the Big Oak Valley, an entire watershed that is virtually untouched. To preserve this unique opportunity, trail development is limited to the perimeter of the watershed. Initial trail improvements will generally be an extension of the major recreation nodes, particularly around the Norred Ranch and the Pueblo area. Subsequent phases extend, upgrade, or refine trails to areas between the previously developed areas and the periphery. All distances noted below are approximations based on measurement of 1" x 500" scale maps. Field measurement would be required to confirm these numbers.

Phase I

Phase I trail improvements would improve access to and between the Joyce-Bernal and Norred Ranches and expand the trail opportunities around the Pueblo Picnic area. New

CHAPTER VIII

- 82 -
trails total approximately 26,625 feet or 5 miles; 22,225 feet devoted to multi-use, 4,375 feet for selective use. An additional 12,750 feet or 2.4 miles of trail (8375 feet multi-use, 4375 feet selective use) are modifications of all or parts of three existing trails. This total includes 4,400 feet of the Old Wagon Road Trail where testing and restrictions would be imposed to determine appropriate selective use. A proposed pedestrian underpass is of particular importance, to be located where several trails converge at Bernal Road. The underpass would allow all trail users (mountain bicyclists, equestrians and pedestrians) to safely cross the road without interfering road traffic. In addition, trailheads should be developed at several locations.

Approximately 7,100 feet of new multi-purpose trail (Los Alamitos Canal Trail) will connect the Joice-Bernal Ranch to the Bernal Entry Gateway. A 1,600 foot segment of the Canal Trail is combined with a 12 foot wide road serving as the one-way exit road from Norred Ranch to the entry gateway; the one-way entry to the Ranch is located a third of a mile further west on Bernal Road. At the Pueblo Picnic Area, several multi- and selective use trails will explore the area with one route (the Bay Area Ridge Trail) reaching from the eastern to the western borders of the Park. Three trails (Pueblo, Mine, Old Wagon Road Trails) combine for 11,250 feet in a long circle around Trench Hill and the Picnic Area that could be used for a cross country race route. The BAR Trail would traverse parts of six trails (Stiles Ranch, Mine, Old Wagon Road, Pueblo, Rocky Ridge, and Boundary) for over 14,500 feet of multi-purpose trail.

Phase 2

Phase 2 trail improvements build upon the Phase 1 trail developments and the Phase 2 site improvements at Rossetto Ranch. A total length of approximately 15,950 feet of new multi-use trail is proposed. The Los Alamitos Canal Trail is extended 10,400 feet to the east, generally following the existing canal alignment to the northeast corner of the Park. An additional 2,750 foot extension beyond the Park's property to Santa Teresa Boulevard is recommended to set the stage for an eventual connection to a future regional trail system to the north. A trail head is recommended at the junction of Santa Teresa Boulevard.

The Rossetto Ranch improvements are contingent upon the provisions of the life estate. A multi-use trail beginning at San Vicente Road which then combines with a new twenty-foot wide entry road will provide access to the Ranch from the south. The San Vicente section is approximately 500 feet long, the combined multi-use trail and 20-foot road extends an additional 2,300 feet. Both trail sections are paved with decomposed granite.

Phase 3

Phase 3 trail improvements consist largely of modifying the existing trails to accommodate proposed use designations. Modifications of proposed selective use trails may require regrading to reduce the existing widths. Other trails, both multi and selected uses, will require general improvements (water diversion bars and regrading) to better accommodate their prescribed uses.

There is very little new trail work in this phase. One multi-use trial, the Los Alamitos Canal trail is extended approximately 1,250 feet from Joice Ranch to the Park's western boundary. The others are selective use: a 1,250 feet pedestrian-only trail in the Big Oak Valley, a 875 foot trail to the Pygmy Oaks and 750 feet along the Wright Center access road. The bulk of the work involves modifying all or parts of fifteen existing trails to multi-use (three trails totaling approximately 8,435 feet) and selective use (twelve trails totaling approximately 34,525 feet) standards. Trails currently dedicated to mountain bicycle use represents the largest single component (15,550 feet) that was recommended for selective use designation. These are renamed to three separate trails: Joice-Bernal Trail and Loop, Bernal Hill Trail and Norred West Trail. Mountain

CHAPTER VIII

- 83 -
bicycling use on these trails may be restricted in the future as new multi-use trails of equivalent or greater length open up. The number of new multi-use trails that will be developed in earlier phases will open up many more areas and longer lengths such that these steep and eroding trails would not be necessary for continued bicycle use.

Sections of three trails designated as selective use should be considered test sections and monitored by Park staff for appropriateness. These trails include 3,250 feet of Coyote Peak Trail, 1,000 feet of Joice-Bernal Trail and all 3,400 feet of the Boundary Trail.

TRAIL DESCRIPTIONS

After full implementation of the Trail Recommendations of this Master Plan a visitor to the Park will be able to choose from 21 named trails for exploration. All or part of 11 trails (10.6 miles) will be designated multi-use, i.e., open to all user groups including mountain bicyclists, equestrians and pedestrians. All or part of 15 trails (8.7 miles) will have some restrictions on its use. In total, there are over 20.7 miles of trail in the ultimate Master Plan, a 159% increase over the total length of the existing system (11 miles, 10 trails).

Eleven of the trails are new although less than 2.5 miles would be actually built in undisturbed landscape. Most of the new trails generally follow existing roads, pathways, or, as in the case of the 4 mile long Los Alamitos Canal Trail, an abandoned utility easement.

All but one of the 12 existing trails to be modified are designated, at least in part, for selective use. Seven are exclusively selective use, the other four include a multi-use segment. One existing trail (the Hidden Springs Trail) that is entirely multi-use is largely intact and will require slight modification to less than half of its total length (5,500 feet).

The trails are described below, grouped into new and modified categories. Ancillary improvements (parking, roadway crossings, trail heads, signage, access roads) affecting the trails are noted with the trail closest to the improvements.

Trail Potentials: New Trails

1. Los Alamitos Canal Trail (app. length 21,500 ft, 4.07 miles)

By far the longest potential multi-use trail in the Park, this trail could combine service, equestrian, pedestrian and bicycle use. It would run along the entire northern edge of the Park, generally following the alignment of the Los Alamitos Canal. Possible funding of surface reconfiguration (from canal to road/trail) by other County agencies and Santa Clara Valley Water District in cooperation with the Park’s Department should be investigated. The Water District has noted its willingness to try and transfer the corridor to others.

For a short distance, both east and west of the intersection with the Bernal Road, the trail would parallel a low speed park road. A twenty foot wide low speed road would lead from the Bernal Road intersection to the Oak Creek Picnic Area, nine hundred feet to the east. To the west, a twelve foot wide one way exit from the Norred Ranch would join the multi-use trail approximately sixteen hundred feet from the intersection.

Where no pavement is required, the surface can remain unimproved. At some reaches, where the canal drops into a syphon (for grade change reasons or because of other physical barriers), construction of the trail/road will have to start from scratch. Syphons occur along the southern end of the golf course, in the vicinity of the Norred Ranch, and at other locations. The cross sections

CHAPTER VII - 84 -
in Figure 31 illustrate the potentials for minimal alteration to the existing canal configuration.

The trail is recommended for development over three phases. First phase of development would connect the Joie Ranch to the Bernal Entry, including the road connection from the Norred Ranch. Phase 2 work would extend the trail from the Bernal Entry to the East Meadow Picnic Area and possibly beyond to Santa Teresa Boulevard. This extension beyond the eastern boundary of the Park to Santa Teresa Boulevard is recommended for this phase to initiate a trail link with the regional park system to the north. A short extension of trail from the Joie Ranch to the western boundary would be the only work in Phase 3.

2. Rocky Ridge Trail (app. 5,750 feet, 1.09 miles)

This is a new multi-use trail that follows a route that has not been previously used as an informal road or pathway. As part of the Bay Area Ridge Trail (BART), this trail would extend from the Pueblo Picnic Area to the Coyote Peak Trail. Averaging eight feet wide with a graded earth surface, it may be reduced to a 4-foot minimum width due to environmental constraints. It is scheduled for implementation in Phase 1.

This trail traverses terrain that has been identified as potential habitat for several endangered plant and insect species. It is recommended that prior to its final design and installation, a thorough biologic survey of the area be conducted to aid in the mitigation of any negative impacts. The alignment, width and detailed design of the trail may be modified from these Master Plan recommendations to reduce or eliminate any impact. There is a potential for geologic interpretive stations adjacent to or on the Lagunita property to describe the unique geologic and landscape environment.

3. Silies Ranch Trail (app. 1,625 feet, .31 miles)

The County and IBM have an agreement which permitted the construction and use of a major segment of this trail on IBM property. The agreement reads in part: “IBM shall grant County a ten foot trail easement for equestrian and pedestrian purposes along the easterly boundary of the Silies Ranch...” Currently the trail terminates at the common IBM and Park property boundary and would need to be extended approximately 1,625 feet to connect with the Mine Trail. It is recommended for Phase 1 implementation and is designated as an M-4 Trail: Multi-use, 4-foot wide graded earth.

Although the newly built trail section on IBM property does not necessarily meet desired widths for a multi-use trail, the relative narrowness of the trail is offset by loci site distances and the lack of long steep downhill runs (relative to user safety and use conflict). If these conditions can be considered as mitigations, the trail may continue to be designated as a multi-use trail. It is unpaved and because of the steep terrain, involves many switch-backs at the lower reach. Trail head facilities could be used to improve this trail at its terminus on San Vicente Road. It connects to Alamitos/Caler Creek Channel and is planned to be a part of, or an alternate route for, a Bay Area Ridge Trail.

4. Boundary Trail (app. 6,000 feet, 1.14 miles)

This trail is an existing trail with a new portion proposed for Phase 1. A new 1,750 foot section of multi-use trail is proposed in Phase 1, to extend down the eastern boundary of the Park from Coyote Peak to the southeast corner. This 8’ wide graded earth trail will generally follow an existing roadway past the
Western Union facility. It will become a portion of the BAR Trail and should be signed accordingly at its terminal point.

The existing portion of the trail between Hidden Springs and Coyote Peak Trails is most appropriate as a pedestrian trail because of the steep terrain and the areas of landsliding that it crosses. However, the trail may be used by equestrians if properly maintained. The physical conditions of the trail, namely the steep grades make this a potentially unsafe trail during adverse weather conditions. Therefore, it is recommended that this trail be monitored and subject to possible seasonal closure in Phase 3.

5. Pueblo Trail (app. 5,000 feet, 0.95 miles)

This graded earth trail has been renamed and relocated to such an extent as to render it a completely new trail. A 2,250 foot length of the existing lower Pueblo Trail has been renamed and incorporated into the Old Wagon Road Trail. Most of the upper reach, approximately 1,000 feet, is recommended for closure, to be replaced by a new, longer more circuitous pedestrian - only "Pueblo Nature Trail".

The major length of the proposed trail, 4,250 feet, is completely new and will generally follow the route of the access road around the Pueblo Picnic Area. This multi-use trail will be open to all users, including the disabled. At one end, it will terminate at the proposed pedestrian underpass with Bernal Road, meeting the Mine and Old Wagon Road Trails. After rounding the Pueblo Picnic Area, the other end will terminate at another point on the Old Wagon Road Trail, three quarters of a mile to the south. This trail is strongly recommended to be designed for whole access uses. In addition, the trail could be part of the route for a cross-country race circuit, beginning and ending at a new large shelter proposed for the Picnic Area.

6. Pueblo Nature Trail (app. 2,400 feet, 0.15 miles)

This is a new selective use (pedestrian only) trail, recommended for Phase 1 implementation, that winds its way across the slope above the Pueblo Picnic Area. A maximum of four feet wide, of graded earth, this trail with interpretive signage would heighten the appreciation of the immediate environment (landslide zones, endangered butterfly habitat, native flowers). Since its specific alignment and design will require careful consideration (as it does enter a very sensitive area) the final width may be less than four feet.

7. Trench Hill Trail (app. 2,000 feet, 0.38 miles)

Like the Pueblo Nature Trail, the Trench Hill Trail is a new selective use trail, recommended for Phase 1 implementation. This trail is ideally suited to accommodate disabled and mobility impaired individuals from the Pueblo Picnic Area, leading to a vista area. It is accessed via the Mine Trail, gently rising to a vista loop atop Trench Hill. From here, a 360 degree vista of the Park can be enjoyed. It is a perfect location to cheer the racers following the cross-country circuit around Trench Hill.

8. Big Oak Valley Trail (app. 1,250 feet, 0.24 miles)

This new selective use trail would make use of a short jeep track near the mouth of the Big Oak Valley and should be limited to pedestrian use. Access to the trail would be via the Old Wagon Road Trail and a short pedestrian bridge over Fortini Creek. It would terminate within the Valley floor at an interpretive feature. Interpretive potentials include such features as Native American use,
riparian forests, riparian wildlife breeding areas, Checkerspot Butterfly habitat and natural geological phenomena which could all be incorporated in a signage program. It is recommended for implementation in Phase 3. The bridge and interpretive features at the Big Oak Site at the mouth of the Valley are recommended for Phase 2.

9. Pymy Oak Trail (app. 875 feet, 0.17 miles)

Just a short spur connecting the Mine and Old Wagon Road Trails this new selected use trail climbs a saddle to the south of Trench Hill. At its high point is a small stand of oaks whose stunted growth is a result of serpentine soils and several other natural factors. This unique feature is currently accessible via an unnamed path; its development as a (maximum) four foot wide graded earth trail is recommended for Phase 3.

10. Rossetto Access Trail (app. 2,800 feet, 0.53 miles)

One of the most important potential access points is through the Rossetto Ranch. A multi-use trail would begin at a small parking area at San Vicente Road and parallel a twenty-foot wide access road along an easement to the Rossetto Ranch. On the Ranch the trail could follow the old road west of Fortini Creek past the group reservation facilities, museum and ranger station proposed for the Rossetto Ranch. This trail has been recommended for Phase 2 implementation pending the provisions of the life-estate for the Ranch.

11. Norred Access (app. 3,100 feet, 0.59 miles)

The Norred Access is the principal vehicular access to Norred Ranch from Bernal Road. It consists of a 12-foot wide one way road that runs parallel with parts of two multi-use trails. Departing from Bernal Road, a half mile from the Bernal Entry, the one-way entry road would proceed for 500 feet and join the Old Wagon Road Trail for a short distance before reaching the parking area. Leaving the Ranch and parking areas, the one way exit parallels the Old Wagon Road Trail downhill to its terminus at the Los Alamitos Canal Trail route. Thence, the exit continues southeast along the Los Alamitos Canal Trail route to the junction with Bernal Road, approximately a third of a mile downhill from the entry.

The entry off of Bernal Road does not parallel a trail and is the only new incursion into the landscape. Naturally, the entry road should be elaborated and perhaps gated, and careful consideration given to safe traffic flow conditions. This access is recommended for Phase 1 implementation, concurrent with improvements with the Norred Ranch and the two trails.

Trail Potentials: Existing Trails

12. Mine Trail (app. 5,000 feet, 0.95 miles)

This multi-use trail has been somewhat shortened and slightly reconfigured from its original 6,000 foot length. A 2,750 foot long section of the existing trail north of Bernal Road has been renamed as part of the Old Wagon Road Trail. A short 1,250 foot section that remains on the north side has been redesignated as a selective use spur of this trail. Most of the trail south of Bernal Road follows the existing alignment; a new section (handicap accessible) parallels the road for approximately 1,200 feet. The entire southern reach is designated M-8 (multi-use, 8 foot graded earth) and recommended for Phase 1 development.

CHAPTER VIII
- 87 -
The trail meets Bernal Road at two points, connected by the new 2,500 foot section. The westernmost crossing is at road grade and connects with the selective use spur on the north side. The trail terminates at the proposed underpass, where it joins the Old Wagon Road Trail and Pueblo Trails.

As part of the access to the whole access Trench Hill Trail and vista, the Mine Trail should be in part designed for whole access. In addition, the entire multi-use trail will be used as part of a cross-country race route.

13. Old Wagon Road Trail (app 10,750 feet, 2.04 miles)

This is a new trail in name only, generally incorporating sections of the existing Mine and Pueblo Trail routes. This trail will follow the historic route of the Old Wagon Road (see History section), becoming the principal north-south regional trail linking the Amaden Valley to the Santa Clara Valley.

North of Bernal Road the trail is designated multi-use and generally follows the existing Mine Trail route down to the Norred Ranch. As this reach is in very good shape, it's modifications are recommended for Phase 3. Continuing downhill from the Ranch is the 1,000 foot segment that will parallel the exit road from the Ranch and terminate at the Los Alamitos Canal Trail. This section is recommended for Phase 1 implementation with the Norred Ranch and the Norred access road.

Continuing south under Bernal Road, via the proposed underpass, the trail will follow a new route for approximately 4,375 feet. This section at the base of Trench Hill is designated selective use with the additional capability of accommodating wheelchair bound visitors. Enhanced natural features (e.g., fresh water seeps and riparian vegetation), and archaeological features (e.g., Indian settlements) encountered along this segment presents unparalleled interpretative opportunities. With the Pueblo Trail, this selective use route completes a whole access circuit around the Pueblo Picnic Area.

South of the Pueblo Picnic Area, a 2,250 foot section of trail (formerly the lower Pueblo Trail) resumes a multi-use designation down to its southern terminus at the Rosetto Ranch. The entire trail south of Bernal road is recommended for Phase 1; the underpass for Phase 2.

14. Coyote Peak (app. 6,625 feet, 1.25 miles)

A major segment of this existing trail should be restricted for selective use because of extremely steep grades. The lower 2,350 feet of trail might be designated S-4 (selective use 4 foot wide, graded earth) with limitations for use imposed after additional study. Speed limits or one way upslope directions should be imposed for mountain bicyclists. Such limitations imposed on a trial basis, are recommended for Phase 3.

As an important recreation opportunity, Coyote Peak must remain accessible to all users; a rest stop and vista features are currently being developed on the Peak. Much of the existing upper trail is a fairly well maintained earth track that should receive continued maintenance. Improvements should be made to the upper reaches just below the peak in Phase 1. This section is designated M-8 and would remain as a 8 foot wide graded earth track.

CHAPTER VIII

- 88 -
15. Wright Center Trail (app. 5,675 feet, 1.07 miles)

This trail has both selective use and multi-use sections, extending from the Pueblo Picnic Area past the Muriel Wright Center, down to the Los Alamitos Canal Trail. Its development includes new trail adjacent to the existing Wright Center access road, closing and modifying the north end of the access road, and incorporating parts of the Ohlone Trail. These improvements are recommended for Phase 3.

A new selective use trail should parallel the existing access road from the Pueblo Picnic Area to the Center. Beyond the Center, to the north, the access road is no longer in use and has fallen into disrepair. A 1,125 foot length from the Center to the intersection with the Hidden Springs Trail should be rebuilt as a four foot wide selective use trail.

Below the Hidden Springs Trail, 1,108 feet of existing road should be modified as a four foot wide multi-use trail (M-4) to a point where it meets the existing Ohlone Trail. At this point, approximately 1,000 feet of the existing Ohlone Trail will be renamed and designated M-4, down to the junction with the Los Alamitos Canal Trail. The multi-use designation typically describes 8 foot wide paths, however, the steep terrain here requires a narrower 4 foot wide trail. There is about 850 feet of abandoned roadway that had originally connected to Bernal Road. It should be closed, regressed and revegetated.

16. Hidden Springs Trail (app. 5,500 feet, 1.04 miles)

The Hidden Springs Trail is a fairly well maintained existing road/trail extending from Bernal Road and continuing past the Pueblo Picnic Area to the Coyote Peak Trail. The eastern reach (3,000 feet) from the Pueblo Picnic Area to the Coyote Peak Trail needs very little work other than continued maintenance. To the west, between the Pueblo Picnic Area and Bernal Road, minor improvements (e.g., water diversion bars, signage, grading) can be implemented in Phase 3. At Bernal Road, a road crossing should be developed in Phase 1 to improve visibility and safe crossing.

17. Ohlone Trail (app. 3,250 feet, 0.62 miles)

The existing Ohlone Trail (7,650 feet), has been shortened considerably to a reach between the new Wright Center Trail and the Ridge Trail, passing the Oak Creek Picnic Area. This trail is designated selective use, maintaining a 4 foot wide graded earth path. The realignment (e.g., signage, grading) should occur in Phase 3.

18. Ridge Trail (app. 3,000 feet, 0.57 miles)

This steep trail in part parallels a long landslide which terminates near the existing golf course pond. Because of steepness and limited site distance it should be modified in Phase 3 for selective use and is designated S-4.

19. Repeater Trail (app. 2,850 feet, 0.54 miles)

This short trail from the Los Alamitos Canal to the Old FAA Repeater Station leads to a localized panoramic view. It should be reserved for selective use, preferably pedestrian only. It should be implemented in Phase 3.

CHAPTER VIII

- 89 -
20. Joice-Bernal Trail and Loop (app. 10,800 feet, 2.05 miles)

This trail is the longest section of several un-named trails that was formerly dedicated to mountain bicycling. Beginning at the Joice Bernal Ranch the trail includes the loop below Bernal Hill and continues south, terminating at the Old Wagon Road Trail. It is recommended that this trail be designated as selective use. Mountain bicycling would be excluded, for many more lengths of multi-use trail has been opened throughout the Park in earlier phases, expanding existing mountain bicycling trails at least three-fold. The segment connecting the loop to the Joice Bernal Ranch (1,000 feet) is particularly steep and eroding and should be monitored with test closures. This section is used by PG&E to access their utility lines. Improvements to this trail, therefore, will require accommodations for PG&E, including adequate widths, surfacing and gates. Specific improvements for the entire trail include interpretive signage, erosion control measures and trail heads, recommended for Phase 3 implementation.

21. Bernal Hill Loop (app. 2,250 feet, 0.43 miles)

This short side trail is an offshoot of the Joice Bernal Trail, and was part of the existing mountain bicycling trail system. It also accesses the highest point of Bernal Hill within the Park boundaries. Like the Joice Bernal Trail and Loop this trail is recommended for selective use designation and Phase 3 implementation.

22. Norred West Trail (app. 2,500 feet, 0.47 miles)

Connecting the Joice Bernal Loop to the Norred Ranch, this short trail is recommended for selected use designation and Phase 3 implementation.

Potential Trail Removal

A cluster of non-designated trails (the old jeep tracks and old tram construction road) in the vicinity of the IBM switch back and the Norred property cross active landslide or potentially active slope areas. Some of these should be eliminated and revegetated. In the vicinity of the repeater station overlooking the golf course and archery range, there are a variety of unofficial trails which pass through landslide areas that should be closed off and revegetated. Several short trails which extend from the vicinity of the corral at the Pueblo area on steep eroded slopes should be closed and revegetated.

Potential Trail Access Points

The following are points where public access could be made to the Park either directly off existing roads or with the addition of a trail head. Some of these involve properties adjacent to the Park which might eventually be purchased or through which trail easements might eventually be granted. Access to the Park is important because Santa Teresa Park serves as an important juncture where trails in and around the Park will meet with the BAR Trail. The BAR Trail is planned as a multi-use trail (accommodating bicyclists, equestrians and pedestrian who access trails possible). Thus the Park will become an important link in the regional trail system, allowing 1) a multi-use regional trail connections, 2) through-park trails and 3) access to an integrated system of in-park trails ranging from multi-use to pedestrian-only routes. Major trail access points may involve parking for a suitable number of automobiles whereas minor entrances would not. The number of autos were determined by site limitations and traffic concerns.

CHAPTER VIII

- 90 -
1. Joice Ranch

Because of future possible activities at this point it would be logical to make use of both the Los Alamitos Canal Trail and the Joice-Bernal Trail and Loop to access what is now the western portion of the Park.

2. Bernal Road Entrance

This entrance already exists, however, connections to trails need to be developed. These include the Los Alamitos Canal Trail, Old Wagon Road Trail, the Ohlone Trail and the Wright Center Trail. A new entry kiosk and security gates are recommended (see Section A: Recreational Centers), no public parking will be accommodated.

3. Santa Teresa Boulevard

Even though the land east of this corner of the Park is not owned by the Park District, the confluence of the Los Alamitos Canal and a series of PG&E power right-of-ways suggests that a trail entrance could be created at the juncture of the Canal with Santa Teresa Boulevard. Santa Teresa Boulevard will also have the light rail system incorporated into it in the future. Therefore, this should be considered as a connection/access for public transportation.

4. Stiles Ranch Trail

This trail will provide public access to the Park from the south side and Almaden Valley via the IBM property. It is designated a multi-use trail and therefore a major trail entrance. Its importance will be superceded by the Rossetto Entry pending the provisions of the life estate. A small parking area is proposed along San Vicente Avenue.

5. BARTrail (Bay Area Ridge Trail)

The BARTrail within the Park is generally on the southern side of the Santa Teresa Ridge and includes all or parts of six Park trails (Stiles Ranch, Mine, Old Wagon Road, Pueblo, Rocky Ridge, and Boundary Trails). It is easily accessible from three major recreation nodes: Rossetto Ranch, Pueblo Picnic Area, and Coyote Peak. To the west the BARTrail continues as the Stiles Ranch Trail on an easement through the IBM Almaden Research Center property. To the east the BARTrail follows the Boundary Trail to the southeast corner of the Park. At that point it follows a PG&E easement into the Calero Estates property.

6. Calero Estates

An easement for a trail connection through the Calero Estates property has been arranged between the developer and the County but not finalized. This would allow access to the proposed Bay Area Ridge Trail near the Western Union facility.

7. East Meadow

Entering through a gate from Baylis Avenue, the East Meadow facility is a group/family reservation picnic area that is bisected by the Los Alamitos Canal Trail. travelling east on this multi-use trail the Park visitor will soon encounter several trails (Repeater, Coyote Peak, Ridge, Ohlone) that will lead to the Santa Teresa Ridge and the major recreation nodes (Pueblo Picnic Area, Coyote Peak) in the interior of the Park. The Los Alamitos Canal Trail will, in addition, lead
directly to several major recreation nodes including the Norred and Joice-Bernal Ranches.
C. RESOURCE MANAGEMENT

Chapter VI, Inventory and Analysis, reveals the wide range of physical and visual conditions of the site. The facilities maintenance and natural resource management implications of these conditions suggest substantial involvement of staff and specialists to protect and maintain these resources. With the notable exception of the golf course, the current limitations on man-power to conduct normal maintenance tasks (to say nothing of natural resource management program) presumably will continue into the future. It is therefore important to develop an approach which gives the department flexibility and "bite size" planning units. Resource Management Zones (RMZ's) are recommended (see Figure 35). Should there be staff increases, staff hour allocations can be integrated with development or management concerns within designated RMZ's.

Fire management has been and will continue to be one of the major management issues. Some form or level of fire management is necessary in all of the RMZ's constituting the Park. A common means of minimizing fire hazard is to allow grazing by cattle or sheep, usually under controlled circumstances. The East Bay Regional Park District has experimented with various forms, with mixed results. Such factors such as the type of surrounding land uses and the distance lessees/permittees must transport their livestock (to get to the grazing areas) are among several factors which relate to the success of such programs. In any case, the extent of non-native grassland is such (in and adjacent to the Park) that grazing could be considered. This might include a cooperative arrangement with large adjacent landowners such as IBM and Hunter which would help make such a program feasible by making much larger tracts of land available.

Controlled burning is an alternative method of fire management. Periodic prescribed fires set under strictly controlled conditions (light or no winds, moderate fuel buildup, distinct fire breaks, fire suppression forces on alert) is a proven management tool in appropriate circumstances. Prescribed burning can be considered for the Ohlone-Coyote, Jolice, Rossoetto and Bernal RMZs in areas where good access is available for fire-fighting forces and no structures would be endangered.

Reforestation of major native plant communities (including riparian and oak woodland as well as revitalization of existing communities) should be considered in all the RMZ's discussed below. This effort would be based on an analysis of physiography indicating potential natural vegetation, (i.e., vegetation that would not have occurred had no farming and grazing taken place on the property).

Another long term management project and an ongoing effort will be the refinement of natural resource, historic, and prehistoric data for interpretive purposes. Some of this may involve library or other informational research work or actual field work such as normally conducted by archaeologists. Part and parcel of this effort will be the continued restoration of historic buildings or replication of the same where deemed important.

Eight resource management zones (RMZ), have been identified reflecting relatively consistent cultural and natural physical characteristics within each zone. While not the norm, there are zones where no single character or quality is large enough to dominate. Most reflect a major factor such as a landform or vegetative community.

CHAPTER VIII
- 93 -
1. Joice RMZ

This RMZ at the northwestern corner of the study area consist primarily of steep slopes north of Bernal Hill. Here the terrain includes areas of sand sliding, some of which are the largest in the entire study area.

The primary soils include the Montana series, Aria Clay, and the Valllecitos Loam. With some minor exceptions, these are the primary soils on some very large areas of native grass lands particularly in the slopes uphill of Joice Ranch and Santa Teresa Springs. These are suitable habitats for the Bay Checkerspot butterfly.

Unlike the slopes above the golf course, vegetation is relatively sparse and there are only a few riparian corridors. A zone of scattered oak woodland occurs upslope of the Norred Ranch and because of its steepness and most cases a lack of conveniently located service roads, relatively consistent fire management policies could apply. Concern for the safety of nearby structures and for the protection of private property makes this an area where fire suppression practices are highly recommended. There are areas of chaparral in the vicinity of structures. The oak forests appear to be areas where there has been a build up of downed wood and litter, potentially providing fuel for wildfire.

Some of this area (particularly non-native grass slopes) may be appropriate for grazing. However, on the steep slopes above Joice Ranch and Santa Teresa Springs, the steep native grasslands would need fencing to prevent overgrazing.

2. Bernal Hill RMZ

This terrain consists primarily of gently sloping hills and ridge tops. There are few limitations in the way of wildlife values, nor are there landslides of any significance. Because of the gentleness of the terrain, there are a few areas with high soil erosion potential. The area is sensitive from a standpoint of its visual importance to the valley below.

It would be suitable for limited grazing, however because of the long narrow shape this might not be practical. Development policy in this area (in connection with recreational use) may involve the reestablishment of native grasses and shrubs where vista areas and rest stops along trails are called for. Thinning of brush and downed limbs might be appropriate in the vicinity of such rest stop vistas or interpretive area. These would occur at the eastern end of the zone in conjunction with sites of archaeological interest.

3. Pueblo Area

This area exhibits a great deal more variety than does the Bernal Hill RMZ. Maintenance and resource management strategies here will ultimately reflect the unique recreation facilities of the area. It is not feasible to consider elimination of the lawn areas due to the demand for one in conjunction with the proposed developments. Therefore, one of the primary management responsibilities will be its expansion and maintaining its condition.

One unique resource of the area is the freshwater seep (currently marked as a nature preserve) which will require more elaborate management practices if expanded or enhanced with the addition of riparian vegetation.

Another area of management concern is the large slope above the Pueblo picnic area. This has been identified as a landslide area thus requiring care with respect to any construction related grade changes. At the same time, because
of springs and seeps, it presents some interesting interpretive opportunities. Stabilization might involve planting of native grasses and wildflowers, combining aesthetic and stabilization objectives.

Although not strictly a management issue, the eucalyptus trees in the area are visually inconsistent with the native landscape and should be removed. They present a conflicting message in an area which should exhibit an interpretational bias toward native vegetation. The removals should be phased to take place after the establishment of riparian trees since the shade they provide is important to this area.

A large portion of the landslide is potentially suitable as habitat for the Bay Checkerspot Butterfly and is also a potential breeding site for the California Tiger Salamander. To protect these areas from excessive intrusion, access should be limited to guided ranger tours or signage.

The remainder of the area is non-native grasses. There are no trees or chaparral of any significance in areas immediately around flammable structures.

4. Ohlone Coyote RMZ

This zone consists of steep slopes from Coyote Peak down to the southern edge of the golf course and the archery range. The area is characterized by long linear and in some cases extensive landslides (some over 1/4 mile long). Paralleling the ravines where these landslides are to be found are a series of narrow but important riparian zones. While these areas are limited in size, they do represent important summer corridors for a variety of moisture seeking wildlife forms. Special vegetation monitoring or management should be considered here.

The golf course pond is an important aquatic habitat, even though it is man made. This aquatic habitat would require more detailed study to determine optimal management policies.

Vegetation in the area particularly in areas where oak woodland, riparian, and/or chaparral communities converge and overlap, represent some of the most heavily wooded areas within the Park. These are areas of high erosion potential (according to the soil types found there). They include Aylar clay, Vallalocca Loam, Capri Clay, and Montaro Rock Clay Loam.

Because of these factors constraints on grazing would be severe. If any grazing were to take place, fencing would be required. Similarly, there has been considerable buildup of fuel, particularly in landslide areas where trees have died and fallen. Thinning would have to be done with great care in order not to expose soils to runoff and erosion which could worsen the erosion and slope stability problem.

This is also an area where stabilization of existing erosion with native plant materials should be considered, namely at the western edge of the area as it comes into contact with the most easterly parking area of the Pueblo picnic area. In this vicinity, because of the combination of clay soils and runoff from the parking areas, gullying is taking place and should be arrested.

An important strategy in this area would be to maintain vegetation so as to minimize runoff, thereby stabilizing creek channels.

5. Big Oak Valley RMZ

CHAPTER VIII

- 95 -
This unique area represents a single large watershed which is large enough to support a perennial stream. In fact it is the only complete watershed of significant size which exists in the Park. In the fall of 1989, after years of drought, water was seen to be still evident. The riparian vegetation and limited amounts of oak woodland are concentrated toward the lower slopes of the valley on the softer alluvial and colluvial soils and at the base of moving slopes. The stream (which feeds into Fortini Creek above the Rossetto Ranch) has a wildlife and amphibian aquatic breeding site value. A variety of aquatic conditions (including a pond on the south of the stream and a series of springs which parallel the stream about mid-slope) are identified as potentially suitable breeding habitats for the California Tiger Salamander.

Along the south slopes and the ridgetop along the southern edge of this RMZ, are large zones of native grassland, suitable as habitat for the Bay Checkerspot Butterfly.

For these reasons, grazing should be precluded from this area. Those limited areas at the upper end of the watershed and along the narrow end of the valley floor which currently consist of non-native grasslands could be considered for reseeding with native grasses. If this is feasible, and successful, this would result in an almost pristine set of natural resource conditions, which coupled with its visual isolation, would make this one of the most unique preserves in the entire region. Only the lower portion of the valley is visually isolated from urbanization. One can see IBM Almaden Research Center to the east from the upper portion of this watershed.

Some areas of the creek which are eroding could be stabilized with native riparian trees and shrubs. If grazing is to take place in other areas of the Park, this area should be fenced off and grazing prohibited. Also, general access should be limited to pedestrian use and extra signage installed to remind users of the delicate nature of the area.

6. Rossetto RMZ

The southern edge of Santa Teresa Park, with its substantial areas of characteristic serpentine soils and native grass lands, makes it suitable as potential habitat for the Bay Checkerspot Butterfly.

Fortini Creek (which is considered a suitable habitat for amphibian and aquatic breeding sites), flows through the center of this zone. It is also extremely rich in historic and prehistoric sites. For this combination of reasons, and because this young stream exhibits high erosive qualities, erosion control and bank stabilization should be considered. It is possible that erosion could begin to expose or undermine valuable assets to historic or prehistoric sites.

Sun and wind exposure, combined with specific soil conditions, has made this a relatively drier portion of the Park. There are several large landslides which converge on the valley from the slopes above, suggesting considerable care with any development such as trails that would require grading or disturbance of the earth surface. Grazing should also be limited in this area. Fencing or signage controls might be necessary to protect the delicate banks of the creek. Fire suppression is important because of the number of structures in the lower portion of the area, but may not be critical outside of these areas.

7. Club House Hill RMZ

This tiny zone is surrounded by the golf course which has created an island of native shrubs and grasses (potential habitat for the Bay Checkerspot Butterfly)
with a limited number of large trees. Resource management should address the interface of zones with the golf course which are planted with exotics. The area should be monitored to insure that exotics do not compete and crowd out the native vegetation.

8. **Golf Course RMZ**

The golf course is an exotic environment in terms of plant materials, landform, and hydrology. Generally, the high energy input required for golf course maintenance should be re-examined with an eye towards introducing native plant materials into the landscape for aesthetic considerations and responsible water management. The following management guidelines should be incorporated in the lease agreement with the golf course concessionaire.

- Perimeter plantings should be mixed with natives to soften the transition from the golf course environment to the Park’s native ecology.
- All new plantings in areas of little or no active golfing should be natives, recognizing that the extremely artificial conditions (daily watering, frequent nutrient and pesticide applications) may limit their use to the perimeter, roughs, or the areas between fairways.
- All invasive plantings should be avoided.
- Wetlands should be expanded/encouraged as a buffer for the groundwater recharge, intercepting nutrient and pesticide runoff.
- The watering, nutrient and pesticide applications, and cutting/pruning regimen should be re-evaluated to accommodate the horticultural preferences of native plant materials.

Since the management of this area is the responsibility of the golf course concessionaire, the park resource management responsibilities should be minimal.
D. OPERATIONS AND MAINTENANCE

During the preparation of this report, the Park has increased in size from 1463 acre to 1685 acres. Upon full implementation of the Master Plan, the major group facilities will increase five-fold, and the total length of trails will double. The existing shared ranger and maintenance staff will need to either increase dramatically or be reorganized and enlarged to provide a full time staff dedicated only to Santa Teresa Park.

Operations and maintenance needs are extremely variable in the region, often a park's size is a minor factor in determining the size of the staff. Rather, it is the number and quality of major group facilities and trail improvements which attract large numbers of visitors that influences the level of staffing. In Santa Clara County, 10 full time employees (including four rangers and four maintenance personnel) are currently assigned to manage over 7,500 acres in three parks (Calero Reservoir, Almaden-QuickSilver, and Santa Teresa). Between 50% and 70% of the staff's efforts are focused on Calero Reservoir Park (2284 acres) with its water-oriented recreation opportunities, and the balance split roughly equally between Almaden-QuickSilver (3598 acres) and Santa Teresa Parks.

The 3383 acre Sanborn-Skyline Park, further to the west in Santa Clara County, includes two group picnic areas, campgrounds, and 15 miles of trails. New facilities under construction include a larger group picnic area a trailer campsite, new restrooms, and a 5 acre turf area with automatic irrigation. Currently five full-time employees (3 rangers, 2 maintenance) are supplemented by 2 seasonal rangers and weekend inmate labor. The size of Sanborn Park as well as the number of facilities, according to the resident ranger makes full use of the permanent full-time staff. With the new facilities, the resident ranger is hoping for an increase in his staff of at least one additional full time maintenance person. Santa Teresa Park, when fully developed, will provide an equivalent number of recreation facilities and trails. The current staffing at Sanborn Skyline Park, therefore, is a useful gauge for the future staffing needs of Santa Teresa Park.

While different funding and management policies complicate comparisons, two regional parks in San Mateo County are noteworthy to illustrate the regional variability in park operations. Huddart Park (914 acres) is slightly more than one-half the size of Santa Teresa Park, with campgrounds, picnic facilities, and 20 miles of trail, and employs five full time personnel (park supervisor, assistant supervisor, 3 rangers), seasonal help, and inmate labor. San Bruno Mountain Park (2257 acres) is larger with a day camp, picnic facilities, and 12 miles of trail and employs 3 full time rangers supported by occasional inmate labor. At these parks, the number of recreation facilities have more to do with the different staffing levels than the total area of the Park.

As Santa Teresa Park implements the Master Plan proposals and increases its recreation potential, a commensurate increase in personnel is essential. The personnel increase should parallel the phased development; in Phase I alone, the major group facilities will triple and the total trail length will increase approximately 40%. Funding for the additional personnel may be offset, in part, by the collection of fees for day use and special events. It is important to note that although the proposed major facilities will require additional staffing to monitor and maintain they will also be the source for additional revenue.

The proposals included herein are based on a 'questionable' of the probable qualitative and quantitative changes in various types of use which can be anticipated in Section A and B of this chapter.

CHAPTER VIII

- 98 -
1. Staff and Facilities

Because of a forecasted increase in the use of existing and future trails as well as the development of proposed recreation centers, much will be required in staff maintenance hours and supporting facilities. The proposed minimums responding to these factors are as follows:

a. **Staff**: A full time ranges and maintenance crew should be assigned to the Park in accordance with the proposed phases as follows:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Ranger FTE</th>
<th>Maint. Person Seasonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>2</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

*FTE Full Time Equivalent

b. **Broaden Maintenance Skills**: If the aforementioned ranches are included and such facilities as a ranger station, museum buildings, stables, and peripheral buildings are included, the range of maintenance skills required will broaden significantly. For example, individuals trained in multiple skills (including plumbing, building maintenance, equestrian needs) will be needed. These individuals might be assigned only to Santa Teresa Park or shared with other similar parks in this sector of the County Parks system. As has been noted earlier natural resource management responsibilities would be handled within resource management zones (RMZs). The maintenance of physical improvements (trails, signs, benches, drinking fountains, etc.) could similarly be arranged on the basis of the RMZs. Some of the necessary tasks might be accomplished by volunteer crews with participation by Park staff to prepare, direct and in some cases, train volunteers.

c. **Operations Center**: A new maintenance yard or corporation yard will be required. As noted earlier there are two possible locations - the Buck Norred Ranch (Phase 1) and the Rosseto Ranch (Phase 2).

2. **Security**

While night operation of this Park is not recommended, the proposed changes to the entry road off Bernal and Heaton Moore Drive call for a shared solution. Since the IBM Almaden Research Center and the Muriel Wright Residential Center are used at night or visited by employees after regular daytime hours, it is possible that these people could use carded gates during the week. A special bypass would allow visitors to the Norred Ranch for special events. IBM has noted its concerns regarding any restrictions upon IBM's use of the road at any time. Access to the Park from the Rosseto property should be subject to similar restrictions for after hours use.

3. **Scheduling**

The potential for increased use suggests that more intensive scheduling considerations are needed. Any group whose activity could have substantial impact, either because of the numbers of people involved or the physical impacts of their activities, should be required to obtain permits ahead of time. The number and type of groups seeking permits and the availability of appropriate recreation nodes would be key considerations for scheduling. Ideally, all groups will be assigned to areas (recreation nodes and RMZ's) that can tolerate their particular activities and avoid inter-use conflicts.

---

**CHAPTER VIII**

- 99 -
E. ACQUISITION POTENTIALS

Physical and visual characteristics as well as the cultural (historic and prehistoric) resources of the several parcels abutting the existing park are extensive enough to suggest priorities. For possible acquisition, factors such as ongoing negotiations, development pressures, and ownership opportunities have been used as well to narrow the list which follows. It should be noted that during preparation of this report the County purchased the Buck Norred Ranch and the Rosenttem Ranch (including a life estate provision) and are therefore not discussed in this section. Three priority levels are defined.

Priority 1 - Four possibilities are included in this category. They are important because they are either adjacent to the Park, and offer great recreational and interpretive opportunities, or remain essentially undeveloped, for a variety of reasons, in spite of surrounding urban development pressures.

Pyzik Parcel
Bonetti Parcel
Gorin Parcel
Los Alamitos Canal West of Norred, adjacent to Gomes Property
Recreational Easement from IBM

The last of these, the Recreational Easement, located between Bernal Hill and the Santa Teresa Park Road, involves an existing 30 acre recreation easement. While the property is owned by IBM, the Park Department holds this recreational easement near the center of the Park. The actual property line in this area forms a "pie" shape which includes a significant portion of Bernal Hill. The acquisition of this area would result in a more logical and rounded Park boundary. An agreement is already in place between the County and IBM whereby 30 acres of the Hunter ridge property, should the County ever purchase this parcel, would be exchanged for ownership of the 30 acre parcel belonging to IBM.

Priority 2 - This category deals with parcels or areas under little or no development pressure, but which for visual reasons and for reasons of simplifications of Park boundaries should be eventually acquired. For the most part, these areas could be secured through scenic easements rather than full fee purchase.

Lagutta, 44 acres.
Combined City of San Jose, Santa Clara Water District, PG&E properties and easements, east of archery range.
IBM Almaden Research Center (portion west of Bernal Hill).
IBM Santa Teresa Facility (portion east and south of Coyote Peak).

Since these are either owned by IBM or controlled by public utilities or public agencies, the concern is not so much with the development of buildings but rather with the development of roads and utility structures including power lines, tanks, or other such structures. In the case of the two IBM areas, an agreement should focus on maintaining existing natural scenic beauty and include a commitment from the landowners to consult and cooperate with County Parks regarding any major alterations would be appropriate. The parcels between the archery range and Santa Teresa Boulevard are equally important for the same reason, but in this case, securing access easements directly off of Santa Teresa Boulevard would be important. The Lagutetta property within the Park is under no known development pressure and it is assumed that its use will continue to be for agricultural purposes (grazing) in the foreseeable future. It should however, be scheduled for eventual purchase. At the present time, since the Water District is interested in abandoning the canal, it is not interested in providing an easement for public use that might make abandonment more difficult in the future. The District

CHAPTER VIII

-100-
is willing, however, to consider transferring the canal right to the County as part of the abandonment.

Priority 3 - In the case of all three parcels in this category, development proposals have been made by private parties. The property values are therefore likely to be extremely high relative to the potential recreational value. However, the County should be prepared for the possibility of negotiating for the dedication of all or part of these properties for Park use.

Bernal Adobe Site (currently owned by Ashford Properties)
Gomes Parcel (adjacent to Buck Norred Ranch)
Hunter Ranch

It is noted that development proposals have been prepared for the Hunter Ranch and for a multiple unit type development on the Gomes Property.
F. COST ESTIMATE

1. The following cost estimate itemizes improvements to Santa Teresa Park per the descriptions of recreation areas in Section A of this chapter. Trail improvements (Item #13) are grouped by phases and itemized by use designation. A summary sheet identifies total costs per reservation node over the three phases.

It is important to note that these cost and quantity figures are not a result of detailed site design. Specific items are listed for particular improvements as best can be determined from a master planning scale. A detailed site design will, in all likelihood, refine these recommended improvements in number and in kind. A twenty per cent contingency has been included in the total for each recreation center to allow such refinements.

Phase one improvements would cost approximately $5.4 million dollars; the Nogred Ranch and Pueblo Picnic Area improvements would cost about 75% of this estimate. Similarly, Phase 2 total costs ($3 million) are dominated by costs for improvements to the major recreation node, Rossetto Ranch ($2 million). Phase 3 total costs ($0.8 million) are almost evenly divided between one recreation node, East Meadow, and general trail improvements.
## Preliminary Summary of Alternatives

<table>
<thead>
<tr>
<th>Item</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Joice Bernal Ranch</td>
<td>96,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Norred Ranch</td>
<td>1,901,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Oak Creek Family Picnic Area</td>
<td></td>
<td>116,420</td>
<td>426,810</td>
</tr>
<tr>
<td>4. East Meadow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Pueblo Picnic Area</td>
<td>2,147,610</td>
<td>84,500</td>
<td></td>
</tr>
<tr>
<td>6. Rosseto Ranch</td>
<td>2,047,200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Upper Rosseto Primitive Picnic Area</td>
<td></td>
<td>4,800</td>
<td></td>
</tr>
<tr>
<td>8. Minor Recreation Center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bernal Hill</td>
<td>3,660</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santa Teresa Springs</td>
<td>32,400</td>
<td>29,100</td>
<td></td>
</tr>
<tr>
<td>Bernal Mine</td>
<td>1,440</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trench Hill</td>
<td>36,450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pigmy Oak</td>
<td>7,620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big Oak</td>
<td></td>
<td>3,420</td>
<td></td>
</tr>
<tr>
<td>Big Oak Valley</td>
<td></td>
<td>1,440</td>
<td></td>
</tr>
<tr>
<td>9. Points of Geologic Interest</td>
<td>9,540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Coyote Peak</td>
<td>124,320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Rosseto Entry Gateway</td>
<td>9,300</td>
<td>286,320</td>
<td></td>
</tr>
<tr>
<td>12. Bernal Entry Gateway</td>
<td>276,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Trails, Roads, Trailheads</td>
<td>764,617</td>
<td>414,840</td>
<td>367,820</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,410,657</strong></td>
<td><strong>2,997,840</strong></td>
<td><strong>794,610</strong></td>
</tr>
</tbody>
</table>
I. Joice Ranch Bernal (Phase 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>Notes</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.20 Site preparation</td>
<td>-- LS Allw</td>
<td>30,000 Including retaining wall, street improvements</td>
</tr>
<tr>
<td>3.30 Utilities upgrade</td>
<td>-- LS Allw</td>
<td>90,000 Power, water, sewer</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>80,000</td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td></td>
<td>16,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$96,000</td>
</tr>
</tbody>
</table>

II. Norred Ranch (Phase 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>Notes</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.10 Remove unsafe structures</td>
<td>13 EA 2,000</td>
<td>26,000 13 bids @ 2,000 SF average (@ $1.00/SF)</td>
</tr>
<tr>
<td>1.20 Site preparation</td>
<td>-- LS Allw</td>
<td>40,000</td>
</tr>
<tr>
<td>2.10 Rehab structures</td>
<td>4 LS</td>
<td>400,000</td>
</tr>
<tr>
<td>2.20 Rezab pool</td>
<td>1 LS</td>
<td>50,000</td>
</tr>
<tr>
<td>3.10 Restrooms</td>
<td>2 LS Allw</td>
<td>150,000 M/F 5 units each</td>
</tr>
<tr>
<td>3.20 Misc. landscape structures</td>
<td>-- LS Allw</td>
<td>150,000 Arbors, shade structures</td>
</tr>
<tr>
<td>3.30 Utilities</td>
<td>-- LS Allw</td>
<td>150,000 Upgrade, install mains, laterals, (power, water, sewer)</td>
</tr>
<tr>
<td>4.10 Site grading</td>
<td>-- LS Allw</td>
<td>150,000 Incl. erosion control, slope stabilization</td>
</tr>
<tr>
<td>5.15 Upgrade parking</td>
<td>45,000 SF</td>
<td>1.75 78,750 150 cars (2&quot; AC/6&quot; base)</td>
</tr>
<tr>
<td>5.30 Corporation yard</td>
<td>-- LS Allw</td>
<td>80,000 5 acre incl small office</td>
</tr>
<tr>
<td>6.10 Misc. site improvements</td>
<td>-- LS Allw</td>
<td>250,000 Water fountains, benches, signage, paths (50,000 SF @ $4/SF, BBQ, trash cans)</td>
</tr>
<tr>
<td>7.10 Misc. planting</td>
<td>-- LS Allw</td>
<td>100,000</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>1,584,750</td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td></td>
<td>316,950</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$1,901,700</td>
</tr>
</tbody>
</table>

III. Oak Creek Family Picnic (Phase 2)

<table>
<thead>
<tr>
<th>Item</th>
<th>Notes</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.20 Site preparation</td>
<td>-- LS Allw</td>
<td>15,000</td>
</tr>
<tr>
<td>5.10 Parking</td>
<td>4,500 SF</td>
<td>3     13,500 15 cars (2&quot;AC/6&quot; base)</td>
</tr>
<tr>
<td>6.10 Misc. site improvements</td>
<td>-- -- --</td>
<td>--    1 family picnic area</td>
</tr>
<tr>
<td>6.11 Picnic tables</td>
<td>7 EA 1,000</td>
<td>7,000 7/area</td>
</tr>
<tr>
<td>6.12 Benches</td>
<td>2 EA 700</td>
<td>1,400 2/area</td>
</tr>
<tr>
<td>6.13 Signage</td>
<td>-- LS Allw</td>
<td>2,000</td>
</tr>
<tr>
<td>6.14 Trash receptacles</td>
<td>4 EA 500</td>
<td>2,000 2/group area, 2 at parking</td>
</tr>
<tr>
<td>6.15 BBQ</td>
<td>7 EA 350</td>
<td>2,450 1/picnic table</td>
</tr>
<tr>
<td>6.20 Watec fountain</td>
<td>1 EA Allw</td>
<td>50,000 Incl. water source (15,000), pipe (5,000)</td>
</tr>
<tr>
<td>7.11 Toilet</td>
<td>2 EA 11,000</td>
<td>22,000 Prefab units (County design), self contained</td>
</tr>
<tr>
<td>7.10 Misc. painting</td>
<td>-- LS Allw</td>
<td>20,000</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>105,350</td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td></td>
<td>21,070</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$126,420</td>
</tr>
<tr>
<td>Item</td>
<td>Location</td>
<td>Quantity</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Site preparation</td>
<td>LS</td>
<td>Allw</td>
</tr>
<tr>
<td>Restrooms</td>
<td>1 LS</td>
<td>Allw</td>
</tr>
<tr>
<td>Misc. landscape</td>
<td>1 LS</td>
<td>Allw</td>
</tr>
<tr>
<td>Parking</td>
<td>9,000 SF</td>
<td>1.75</td>
</tr>
<tr>
<td>Upgrade parking</td>
<td>12,000 SF</td>
<td>.50</td>
</tr>
<tr>
<td>Misc. site improvements</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Picnic tables</td>
<td>30</td>
<td>EA 1.000</td>
</tr>
<tr>
<td>Signage</td>
<td>1 LS</td>
<td>Allw</td>
</tr>
<tr>
<td>Trash receptacles</td>
<td>8 EA</td>
<td>200</td>
</tr>
<tr>
<td>BBQ</td>
<td>9 EA</td>
<td>325</td>
</tr>
<tr>
<td>BBQ (large)</td>
<td>1 EA</td>
<td>2,000</td>
</tr>
<tr>
<td>Holding posts</td>
<td>1 LS</td>
<td>Allw</td>
</tr>
<tr>
<td>Water fountain</td>
<td>2 EA</td>
<td>Allw</td>
</tr>
<tr>
<td>Dog run</td>
<td>1 LS</td>
<td>Allw</td>
</tr>
</tbody>
</table>

Subtotal: 355,675
Contingency (20%): 71,136
Total: 426,810

 CHAPTER VIII
-105-
V. Pueblo Picnic Area (Phase 1)

1.20 Site preparation -- LS Allw 36,000

1.25 Remove exotic planting 50 EA 150 7,500 Trees, various sizes

3.20 Misc. landscape structures -- LS Allw 200,000 Shade, arbors

3.30 Utility upgrade - irrigation -- LS Allw 225,000 Rehab irrigation system (9A) 450,000 SF @ .50/ SF

3.31 Utility upgrade - septic -- LS Allw 30,000 Septic system repair, relocation, replacement

3.35 Utilities - service pad -- LS Allw 150,000 Water/power, 2,000 LF

4.10 Grading/erosion control -- LS Allw 20,000 Stabilize guilty

4.11 Grading/erosion control -- LS Allw 100,000 Fortizi Creek

4.12 Grading -- LS Allw 50,000 Amphitheatre, new parking

5.10 Parking 30,000 SF 1.75 52,500 90 cars

5.11 Parking upgrade 25,000 SF 2.50 62,500 Relocate/reconfigure 70 cars (incl. demo regrading) 2"AC/6" base

5.20 Service pad improvements 2,500 SF 3.00 7,500 Concrete slab and utility access

6.10 Misc. site improvements -- -- -- ---- 2 group, 1 family picnic areas

6.11 Picnic tables 49 EA 1,000 49,000 12/group area, 15/family area

6.11 Layout tables 4 EA 700 2,800 2/group area

6.20 Water fountain 2 EA Allw 10,000

6.17 Signage -- -- Allw 10,000

6.14 Trash receptacles 40 EA 500 20,000 5/group area and 4 @ parking

6.15 BBQ 15 EA 325 4,875 ---

6.151 BBQ (large) 3 EA 1,500 4,500 Masonry

6.17 Hitching posts/water troughs-- LS Allw 3,500 Horses/bicycles

6.30 Passive play facilities -- LS Allw 30,000 Horse shoe pit, volleyball/band court

7.10 Misc. decorative planting -- LS Allw 20,000 Screen decorative around structures/facilities

7.20 Irrigation 5 Acr Allw 350,000 Turf areas, 5 @ $70,000

7.30 Meadow restoration 8 Acr Allw 160,000 8 acres @ $20,000

7.40 Riparian trees 5 Acr Allw 120,000 5 acres @ $20,000

Subtotal 1,789,675

Contingency (20%) 357,935

Total $2,147,610

V. Pueblo Picnic Area (Phase 2)

1.20 Site preparation -- LS Allw 20,000 Including clearing, light grading

3.22 Foot bridge 2 LS Allw 30,000 24" span @ $25,000

Subtotal 70,000

Contingency (20%) 14,000

Total $84,000

CHAPTER VIII

-106-
### VI. Rossetto Buildings and Site (Phase 2)

<table>
<thead>
<tr>
<th>Item Description</th>
<th>LS</th>
<th>Allw</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove unsafe structures</td>
<td>LS</td>
<td>Allw</td>
<td>15,000</td>
</tr>
<tr>
<td>Site preparation</td>
<td>LS</td>
<td>Allw</td>
<td>50,000</td>
</tr>
<tr>
<td>Rehab houses</td>
<td>3,000 SF</td>
<td>80</td>
<td>180,000 To ranger station, ranger residence</td>
</tr>
<tr>
<td>Rehab pool</td>
<td>LS</td>
<td>Allw</td>
<td>50,000</td>
</tr>
<tr>
<td>Restrooms</td>
<td>LS</td>
<td>Allw</td>
<td>275,000 M/F @ 15 units</td>
</tr>
<tr>
<td>Misc. landscape structures</td>
<td>LS</td>
<td>Allw</td>
<td>30,000 Shade, arbor</td>
</tr>
<tr>
<td>Footbridge</td>
<td>LS</td>
<td>Allw</td>
<td>25,000</td>
</tr>
<tr>
<td>Bridge</td>
<td>1 LS</td>
<td>Allw</td>
<td>250,000 24’ span, service vehicle access</td>
</tr>
<tr>
<td>Utilities upgrade</td>
<td>LS</td>
<td>Allw</td>
<td>200,000 Underground power, new septic, gas, water</td>
</tr>
<tr>
<td>Site grading</td>
<td>LS</td>
<td>Allw</td>
<td>50,000</td>
</tr>
<tr>
<td>Streambank stabilization</td>
<td>LS</td>
<td>Allw</td>
<td>150,000 $50/LF</td>
</tr>
<tr>
<td>Parking</td>
<td>7,500 SF</td>
<td>1.75</td>
<td>13,125 25 cars (2’ Ac/6’ base)</td>
</tr>
<tr>
<td>Parking upgrade</td>
<td>7,500 SF</td>
<td>1.75</td>
<td>13,125 25 cars (2’ Ac/6’ base)</td>
</tr>
<tr>
<td>Maintenance yard</td>
<td>1 Acre</td>
<td>Allw</td>
<td>125,000 AC10,000 SF, cr aggr 35,000 SF, bidg 1,200 SF, fence 800 LF, BBQ, trash receptacles, corral</td>
</tr>
<tr>
<td>Misc. site improvements</td>
<td>LS</td>
<td>Allw</td>
<td>160,000 Water fountain, benches, signage, paths, total</td>
</tr>
<tr>
<td>Irrigated turf</td>
<td>30,000 SF</td>
<td>Allw</td>
<td>45,000</td>
</tr>
</tbody>
</table>

**Subtotal** 1,796,250

Contingency (20%) 351,250

**Total** 2,147,500

### VII. Upper Rossetto Primitive Picnic (Phase 2)

<table>
<thead>
<tr>
<th>Item Description</th>
<th>LS</th>
<th>Allw</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signage</td>
<td>LS</td>
<td>Allw</td>
<td>500</td>
</tr>
<tr>
<td>Trash receptacles</td>
<td>2 EA</td>
<td>700</td>
<td>1,000 Wood, backless</td>
</tr>
<tr>
<td>Bench/table</td>
<td>5 EA</td>
<td>500</td>
<td>2,500 Wood, backless</td>
</tr>
</tbody>
</table>

**Subtotal** 4,000

Contingency (20%) 800

**Total** 4,800

### VIII. Manor Recreation Center

#### A. Bernal Hill (Phase 1)

<table>
<thead>
<tr>
<th>Item Description</th>
<th>LS</th>
<th>Allw</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benches</td>
<td>2 EA</td>
<td>700</td>
<td>1,400 6’ wood</td>
</tr>
<tr>
<td>Signage</td>
<td>LS</td>
<td>Allw</td>
<td>1,200 Weather proof plaque</td>
</tr>
<tr>
<td>Paving DG</td>
<td>300 SF</td>
<td>1.50</td>
<td>450 4” on 4” base</td>
</tr>
</tbody>
</table>

**Subtotal** 3,050

Contingency (20%) 610

**Total** 3,660

---

CHAPTER VIII
B1. Santa Teresa Springs (Phase 1)

3.21 Cistern cover 1 LS Allw 15,000 15' diameter
4.10 Grading/erosion control -- LS Allw 10,000
6.16 Handrails -- LS Allw 2,000
Subtotal 27,000
Contingency (20%) 5,400
Total 32,400

B2. Santa Teresa Springs (Phase 2)

4.20 Retaining walls 40 LF 100 4,000 4' high concrete
6.12 Benches 2 EA 700 1,400 6' wood
6.13 Signage 1 LS Allw 1,200 ----
6.17 Hitching post -- LS Allw 750 Horses/bicycles
6.18 Timber steps/trail 60 LF 100 6,000 Incl. minor grading
6.19 Fence 20 LF Allw 5,000 Wrought iron
6.50 Paving DG 600 SF 1.50 900 4' on 4' base
7.19 Misc. planting -- LS Allw 5,000 Erosion control
Subtotal 24,250
Contingency (20%) 4,850
Total 29,100

C. Bernal Nine (Phase 1)

6.13 Signage 1 LS Allw 1,200 ----
Subtotal 1,200
Contingency (20%) 240
Total $1,440

D. Trench Hill Vista Point (Phase 1)

6.51 Paving DG 500 SF 1.75 175 2' w/ stabilizer and treads
6.12 Benches 3 EA 700 2,100 6' wood
6.13 Signage 2 LS Allw 2,400 ----
6.20 Water fountain 1 LS Allw 25,000 Incl. water source ($15,000), pipe
Subtotal 30,375
Contingency (20%) 6,075
Total $36,450

CHAPTER VIII

-108-
E. Pigmy Oak Forest (Phase 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benches</td>
<td>0.1 EA</td>
<td>700</td>
<td>700 6' wood</td>
<td>1,200</td>
</tr>
<tr>
<td>Signage</td>
<td>1 LS</td>
<td>Allw</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>Railing</td>
<td>200 LF Allw</td>
<td>4,000</td>
<td>450 4&quot; on 4&quot; base</td>
<td>4,000</td>
</tr>
<tr>
<td>Paving DG</td>
<td>300 SF</td>
<td>1.50</td>
<td>450 4&quot; on 4&quot; base</td>
<td>1,350</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td></td>
<td></td>
<td>6,350</td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td></td>
<td></td>
<td></td>
<td>1,270</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$7,620</td>
</tr>
</tbody>
</table>

F. Big Oak (Phase 2)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benches</td>
<td>0.1 EA</td>
<td>700</td>
<td>700 6' wood</td>
<td>1,200</td>
</tr>
<tr>
<td>Signage</td>
<td>1 LS</td>
<td>Allw</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>Hitching Post</td>
<td>0.1 LS</td>
<td>Allw</td>
<td>750 Horse/bicycles</td>
<td>750</td>
</tr>
<tr>
<td>Paving DG</td>
<td>300 SF</td>
<td>1.50</td>
<td>450 4&quot; on 4&quot; base</td>
<td>1,350</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td></td>
<td></td>
<td>2,850</td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td></td>
<td></td>
<td></td>
<td>570</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$3,420</td>
</tr>
</tbody>
</table>

G. Big Oak Valley (Phase 2)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signage</td>
<td>1 LS</td>
<td>Allw</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td></td>
<td></td>
<td></td>
<td>240</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$1,440</td>
</tr>
</tbody>
</table>

IX. Points of Geologic Interest (Phase 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benches</td>
<td>0.1 LS</td>
<td>Allw</td>
<td>2,100 3 sites @ $700</td>
<td>2,100</td>
</tr>
<tr>
<td>Signage</td>
<td>0.1 LS</td>
<td>Allw</td>
<td>3,600 3 sta @ $1,200 Slide Creek, Laurel Sprgs, Rocky</td>
<td>3,600</td>
</tr>
<tr>
<td>Hitching post</td>
<td>0.1 LS</td>
<td>Allw</td>
<td>2,250 3 sites @ $750, horsel/bicycles</td>
<td>2,250</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td></td>
<td></td>
<td>7,950</td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td></td>
<td></td>
<td></td>
<td>1,590</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$9,540</td>
</tr>
</tbody>
</table>

CHAPTER VIII

-109-
SANTA TERESA COUNTY
FINAL MASTER PLAN REPORT

X. Coyote Peak (Phase 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>LS</th>
<th>Allw</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.20 Site preparation</td>
<td></td>
<td></td>
<td>2,500</td>
</tr>
<tr>
<td>6.13 Signage</td>
<td></td>
<td></td>
<td>4,800</td>
</tr>
<tr>
<td>7.11 Special planting</td>
<td></td>
<td></td>
<td>8,000</td>
</tr>
<tr>
<td>8.10 Artwork</td>
<td></td>
<td></td>
<td>50,000</td>
</tr>
</tbody>
</table>

Subtotal: 55,300
Contingency (20%): 11,060
Total: $124,360

XI. Rossetto Entry Gateway (Phase 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>LS</th>
<th>Allw</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.20 Site preparation</td>
<td></td>
<td></td>
<td>2,500</td>
</tr>
</tbody>
</table>

Subtotal: 7,750
Contingency (20%): 1,550
Total: $9,300

XII. Bernal Entry Gateway (Phase 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>LS</th>
<th>Allw</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.20 Site preparation</td>
<td></td>
<td></td>
<td>10,000</td>
</tr>
<tr>
<td>3.21 Kiosk/gatehouse</td>
<td></td>
<td></td>
<td>120,000</td>
</tr>
<tr>
<td>3.22 Gate, manual</td>
<td></td>
<td></td>
<td>5,000</td>
</tr>
<tr>
<td>3.23 Gate, electric</td>
<td></td>
<td></td>
<td>60,000</td>
</tr>
<tr>
<td>4.10 Site grading</td>
<td></td>
<td></td>
<td>25,000</td>
</tr>
<tr>
<td>5.20 Roadway widening</td>
<td></td>
<td></td>
<td>9,100</td>
</tr>
<tr>
<td>6.13 Signage</td>
<td></td>
<td></td>
<td>7,500</td>
</tr>
<tr>
<td>6.14 Trash receptacles</td>
<td></td>
<td></td>
<td>2,000</td>
</tr>
</tbody>
</table>

Subtotal: 238,600
Contingency (20%): 47,720
Total: $286,320

CHAPTER VIII

-110-
### VIII. Trails, Roads, Trailheads (Phase 1)

<table>
<thead>
<tr>
<th>Description</th>
<th>Length</th>
<th>Width</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.100 Multi-Use Trails (M-4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.101 Stiles Ranch</td>
<td>1,625 LF</td>
<td>4</td>
<td>4&quot; graded earth</td>
</tr>
<tr>
<td>9.110 Multi-Use Trails (M-8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.111 Mine</td>
<td>3,750 LF</td>
<td>8</td>
<td>8&quot; graded earth</td>
</tr>
<tr>
<td>9.112 Old Wagon Road</td>
<td>2,250 LF</td>
<td>8</td>
<td>3,000</td>
</tr>
<tr>
<td>9.113 Rocky Ridge</td>
<td>5,750 LF</td>
<td>8</td>
<td>1,800</td>
</tr>
<tr>
<td>9.114 Boundary</td>
<td>2,750 LF</td>
<td>8</td>
<td>4,600</td>
</tr>
<tr>
<td>9.115 Coyote Peak</td>
<td>1,375 LF</td>
<td>8</td>
<td>2,200</td>
</tr>
<tr>
<td>9.120 Multi-Use Trails (M-1DG)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.121 Los Alamitos Canal</td>
<td>6,500 LF</td>
<td>12</td>
<td>75,000</td>
</tr>
<tr>
<td>9.130 Multi-Use Trails (M-8/4AC)</td>
<td></td>
<td></td>
<td>0 8&quot; decomposed granite</td>
</tr>
<tr>
<td>9.131 Pueblo</td>
<td>5,000 LF</td>
<td>15</td>
<td>4&quot; asphalt</td>
</tr>
<tr>
<td>9.210 Selective Use Trails (S-4AC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.211 Trench Hill Access</td>
<td>2,000 LF</td>
<td>11</td>
<td>22,000 Includes 4&quot; wide decomposed granite</td>
</tr>
<tr>
<td>9.212 Old Wagon Road</td>
<td>4,375 LF</td>
<td>8.75</td>
<td>38,281</td>
</tr>
<tr>
<td>9.500 PARK ROADS (R12)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.501 Norred Access</td>
<td>1,375 LF</td>
<td>70</td>
<td>12&quot; AC, curb and gutter</td>
</tr>
<tr>
<td>9.510 ROAD AND TRAIL (R-12/M-8DG)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.511 Los Alamitos Canal</td>
<td>2,250 LF</td>
<td>48</td>
<td>12&quot; AC road, 8&quot; decomposed granite</td>
</tr>
<tr>
<td>9.600 TRAIL HEADS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.601 Stiles Ranch</td>
<td>1 LS Allw</td>
<td>300</td>
<td>multi-use trail</td>
</tr>
<tr>
<td>9.602 Pueblo</td>
<td>1 LS Allw</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>9.603 STP road overlook</td>
<td>1 LS Allw</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>10.10 Trail-road crossing struct</td>
<td>1 LS Allw</td>
<td>200,000</td>
<td>Underpass at STP road and Wright Ctr drive</td>
</tr>
<tr>
<td>10.20 Hitching posts</td>
<td>1 LS Allw</td>
<td>5,000</td>
<td>Horses/bicycles. At trail heads for ml. use</td>
</tr>
</tbody>
</table>

**Subtotal** | 637,181 |
**Contingency (20%)** | 127,436 |
**Total** | $764,617 |
<table>
<thead>
<tr>
<th>Description</th>
<th>Length</th>
<th>Width</th>
<th>Material</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.120 Multi-Use Trails</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M-4D)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.121 Los Alamos Trail</td>
<td>11,250</td>
<td>12</td>
<td>Decomposed granite</td>
<td>8' decomposed granite</td>
</tr>
<tr>
<td>9.122 San Vicente Trail</td>
<td>500</td>
<td>12</td>
<td></td>
<td>6,000</td>
</tr>
<tr>
<td>9.510 Road and Trail (R-12/M-8DG)</td>
<td></td>
<td></td>
<td></td>
<td>12' AC road, 8' decomposed granite multi-use trail</td>
</tr>
<tr>
<td>9.511 Los Alamos Trail</td>
<td>900</td>
<td>48</td>
<td></td>
<td>43,200</td>
</tr>
<tr>
<td>9.520 Road and Trail (R-20/M-8DG)</td>
<td></td>
<td></td>
<td></td>
<td>20' AC road, 8' decomposed granite multi-use trail</td>
</tr>
<tr>
<td>9.521 Rossetto Access</td>
<td>2,300</td>
<td>70</td>
<td></td>
<td>161,000</td>
</tr>
<tr>
<td>9.901 Trail Heads</td>
<td></td>
<td></td>
<td></td>
<td>Signage, gate/barrier</td>
</tr>
<tr>
<td>9.901 Santa Teresa Blvd</td>
<td></td>
<td></td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>Subtotal</td>
<td>345,700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td>69,140</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>414,840</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.100 Multi-Use Trails</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M-4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.101 Wright Center</td>
<td>2,800</td>
<td>4</td>
<td></td>
<td>4' graded earth</td>
</tr>
<tr>
<td>9.110 Multi-Use Trails</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M-8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.111 Old Wagon Road</td>
<td>3,125</td>
<td>8</td>
<td></td>
<td>2' graded earth</td>
</tr>
<tr>
<td>9.112 Hidden Springs</td>
<td>2,500</td>
<td>6</td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>9.120 Multi-Use Trails</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M-8DG)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.121 Los Alamos Trail</td>
<td>1,250</td>
<td>12</td>
<td>Decomposed granite</td>
<td>8' decomposed granite</td>
</tr>
<tr>
<td>9.200 Selective Use Trails</td>
<td></td>
<td></td>
<td></td>
<td>4' graded earth</td>
</tr>
<tr>
<td>(S-4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.201 Coyote Peak</td>
<td>5,250</td>
<td>4</td>
<td></td>
<td>13,300</td>
</tr>
<tr>
<td>9.202 Ohlone</td>
<td>3,250</td>
<td>4</td>
<td></td>
<td>13,000</td>
</tr>
<tr>
<td>9.203 Old Wagon Road Spur</td>
<td>1,250</td>
<td>4</td>
<td></td>
<td>5,000</td>
</tr>
<tr>
<td>9.204 Pygmy Oak</td>
<td>875</td>
<td>4</td>
<td></td>
<td>3,500</td>
</tr>
<tr>
<td>9.205 Repeater</td>
<td>2,830</td>
<td>4</td>
<td></td>
<td>11,400</td>
</tr>
<tr>
<td>9.206 Ridge</td>
<td>3,750</td>
<td>4</td>
<td></td>
<td>13,500</td>
</tr>
<tr>
<td>9.207 Wright Center</td>
<td>1,875</td>
<td>4</td>
<td></td>
<td>7,500</td>
</tr>
<tr>
<td>9.220 Selective Use Trails</td>
<td></td>
<td></td>
<td></td>
<td>8' graded earth</td>
</tr>
<tr>
<td>(S-8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.221 Boundary</td>
<td>3,250</td>
<td>8</td>
<td></td>
<td>36,000</td>
</tr>
<tr>
<td>9.222 Mountain Bike</td>
<td>15,500</td>
<td>8</td>
<td></td>
<td>124,400</td>
</tr>
<tr>
<td>9.20 Hitching posts</td>
<td></td>
<td></td>
<td></td>
<td>18,300</td>
</tr>
<tr>
<td>Subtotal</td>
<td>306,506</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td>61,300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>367,800</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>