

# DELAVEAGA GOLF COURSE MASTER PLAN

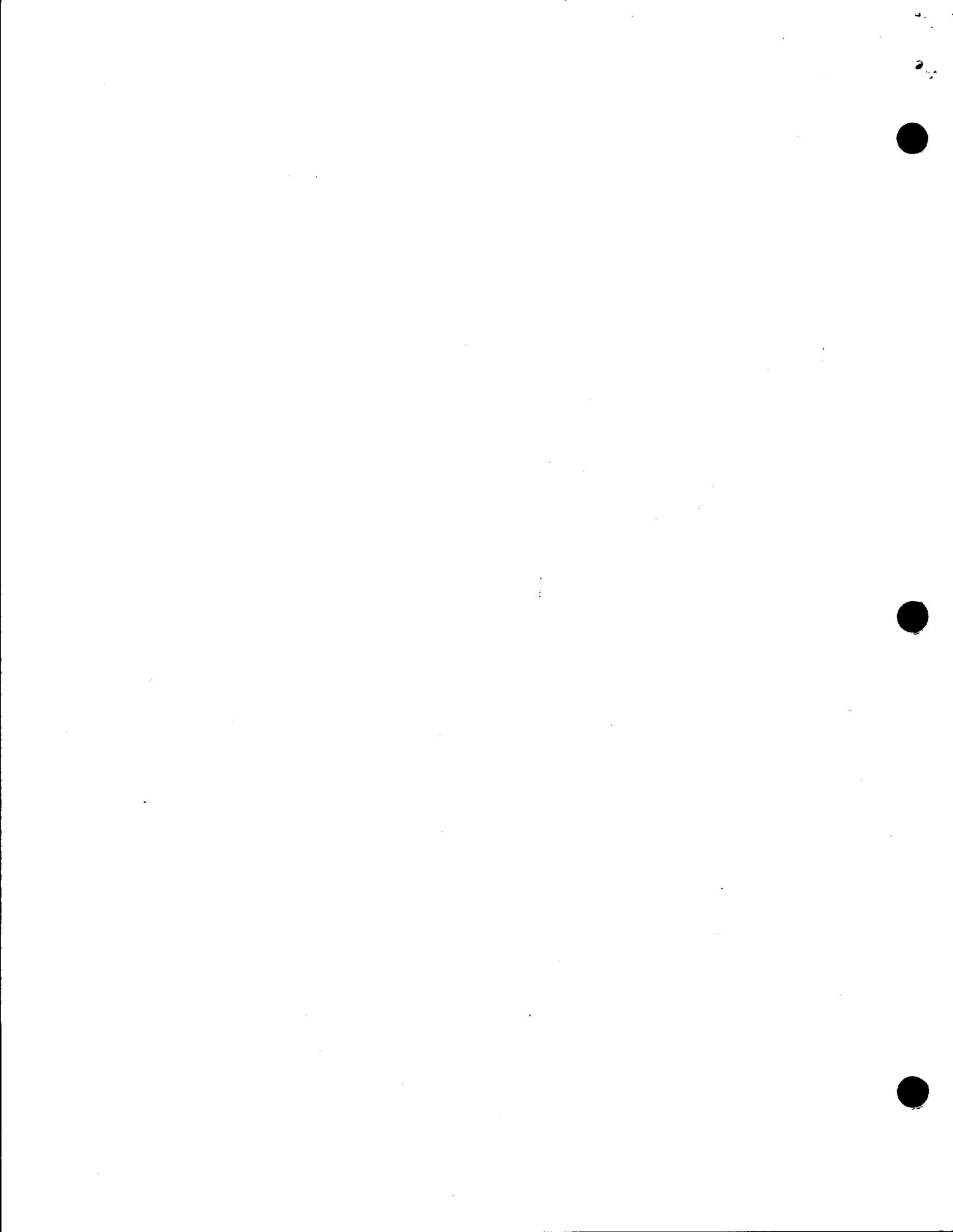
## **Initial Study / Mitigated Negative Declaration**

**PREPARED FOR**

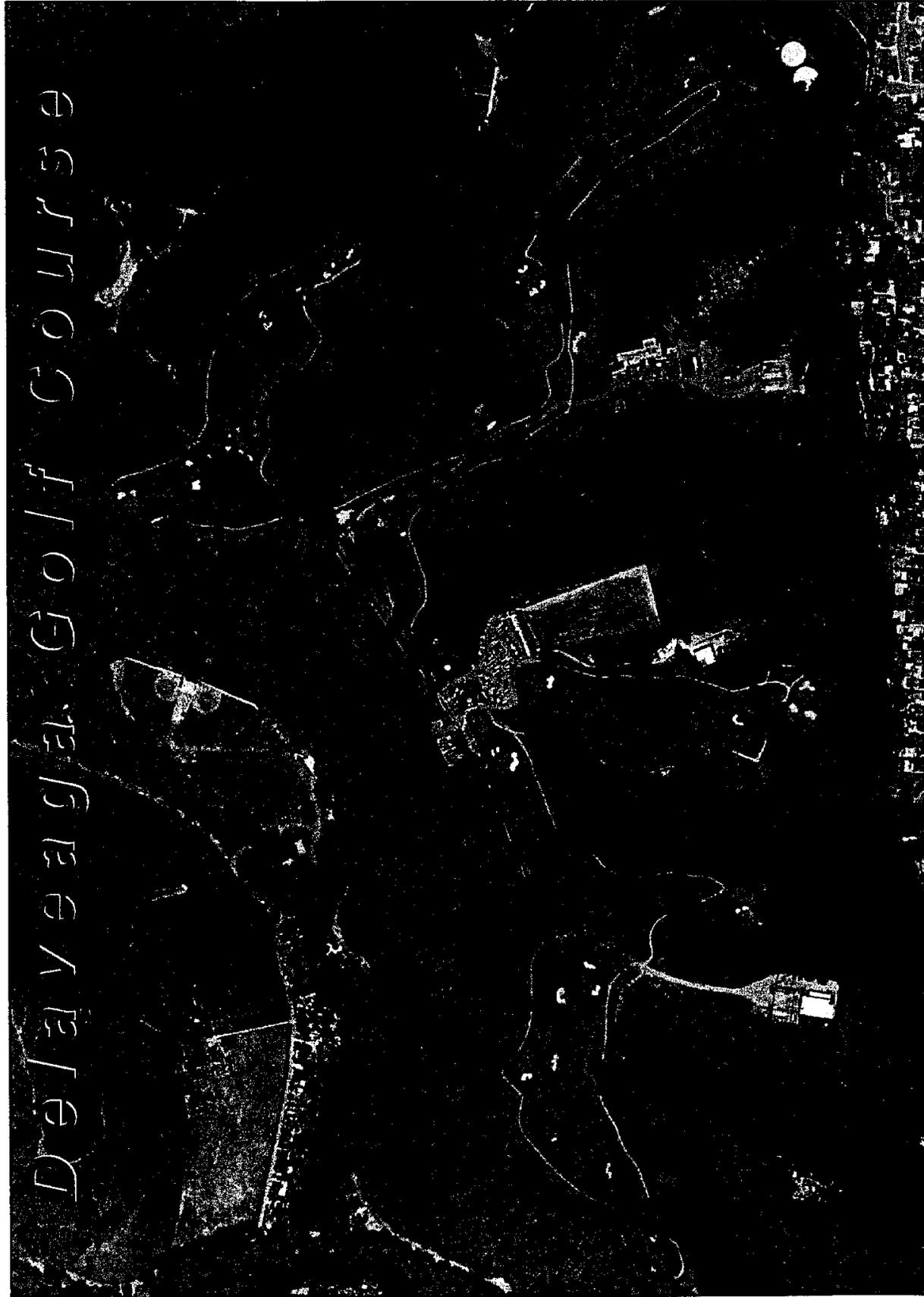
**CITY OF SANTA CRUZ**

**PREPARED BY  
STRELOW CONSULTING**

**MAY 2003**



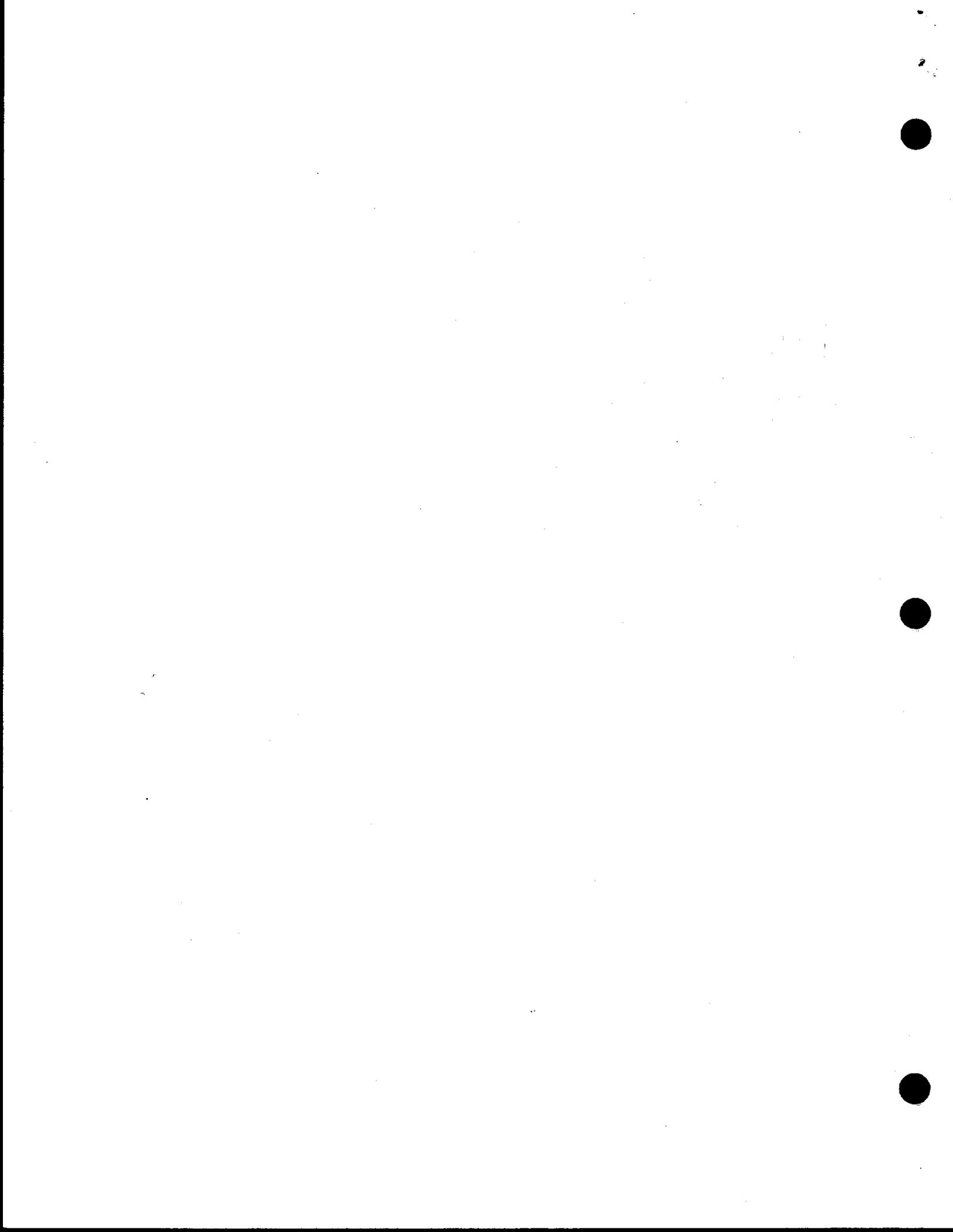
# Delaware Golf Course



Aerial by AirPhoto USA  
June, 2000



Prepared by City of Santa Cruz GIS Services  
February, 2003



CITY OF SANTA CRUZ  
**Negative Declaration**

The Administrator of Environmental Quality of the City of Santa Cruz has prepared this Negative Declaration for the following described project:

**Project Title:** DeLaveaga Golf Course Master Plan

**Project Location:** Within DeLaveaga Park in the northeastern portion of the City of Santa Cruz.

**Project Description:** The project consists of a proposed Golf Course Master Plan that includes several improvements to upgrade the existing golf course facility, including regrading fairways and the driving range to improve drainage and overall playing conditions, including slope stabilization at the rear of the driving range; installation of improved drainage collection systems throughout the course; rebuilding and/or improving greens, tees and bunkers; rebuilding cart paths; and irrigation system and landscaping improvements. The Master Plan also includes construction of a new clubhouse with demolition of the existing clubhouse upon completion of the new one and construction of 2 new permanent restrooms on the golf course to replace existing temporary restrooms.

**Applicant:** City of Santa Cruz Parks and Recreation Department on behalf of the City of Santa Cruz, County of Santa Cruz, and California Department of Parks and Recreation.

**Applicant Address:** 323 Church Street, Santa Cruz, CA 95060

The City of Santa Cruz Parks and Recreation Department has reviewed the proposed project and has determined that the project, based on the Initial Study attached hereto, will not have a significant effect on the environment. An Environmental Impact Report is not required pursuant to the California Environmental Quality Act of 1970. This environmental review process and Negative Declaration have been completed in accordance with the State CEQA Guidelines and the local City of Santa Cruz CEQA Guidelines and Procedures.

The following mitigation measures will be incorporated into the project design or as conditions of approval, to ensure that any potential significant environmental impacts will not be significant.

<u>Significant Impact</u>	<u>Mitigation</u>
Construction-related air emissions and dust generation.	<ol style="list-style-type: none"><li>1. Implement "Best Management Practices" (BMPs) (see section 5.0 of this Initial Study for further discussions of BMPs) where grading will occur to reduce generation of dust and potential PM<sub>10</sub> emissions. Such practices would include, but not be limited to, the following:<ul style="list-style-type: none"><li>▪ Water all active construction areas daily.</li><li>▪ Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.</li><li>▪ Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).</li></ul></li></ol>

Potential disruption to nesting bird seasons due to grading and construction.

Potential erosion, sedimentation, and water quality impacts to adjacent drainages due to grading and construction.

- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

2. Schedule construction activities outside of the nesting bird period (1 March - 31 July). If construction, including tree removal, is scheduled to begin between 1 March and 31 July, a pre-construction nesting survey should be conducted by a qualified wildlife biologist to determine if nesting birds are on or in the immediate vicinity of the project site. If active nests of protected species are found, delay construction until August 1 or after the wildlife biologist has determined that nesting activities have ceased. If construction activities are scheduled to begin outside of the nesting period, no further surveys are recommended.

3. Implement erosion control measures during and after construction to prevent inadvertent erosion and offsite transport of sediments into Arana Gulch, including, but not limited to:

- Install well-anchored silt fences and/or straw bales at the top of drainages adjacent to the following Holes/Fairways: 1, 3, 5, 8, 9, 10, 13, 17; adjacent to the retaining wall construction zone; the driving range; and the onsite pond in order to prevent any physical movement or placement of materials or equipment outside the construction area into drainages and waterways.
- Limit ground disturbance and vegetation removal during construction to the minimum necessary to complete work on a given hole/fairway.
- Complete work prior to the onset of the rainy season (generally November 1), if possible, and avoid grading during the rainy season (generally between November 1 and April 1).
- If excavation activities extend beyond November 1, require implementation of all measures to prevent silt laden water from entering adjacent drainages, the onsite pond and Arana Gulch. Require use of sediment/detention basins or similar protection to temporarily contain construction runoff and to prevent sediment-laden runoff from entering drainages. Install filter fabric at drain inlets.
- Protect any disturbed areas during the rainy season with appropriate erosion control measures. Prior to November 1, disturbed soils at each site should undergo erosion control treatment consisting of temporary seeding, straw mulch or other measures pursuant to an approved erosion control plan.

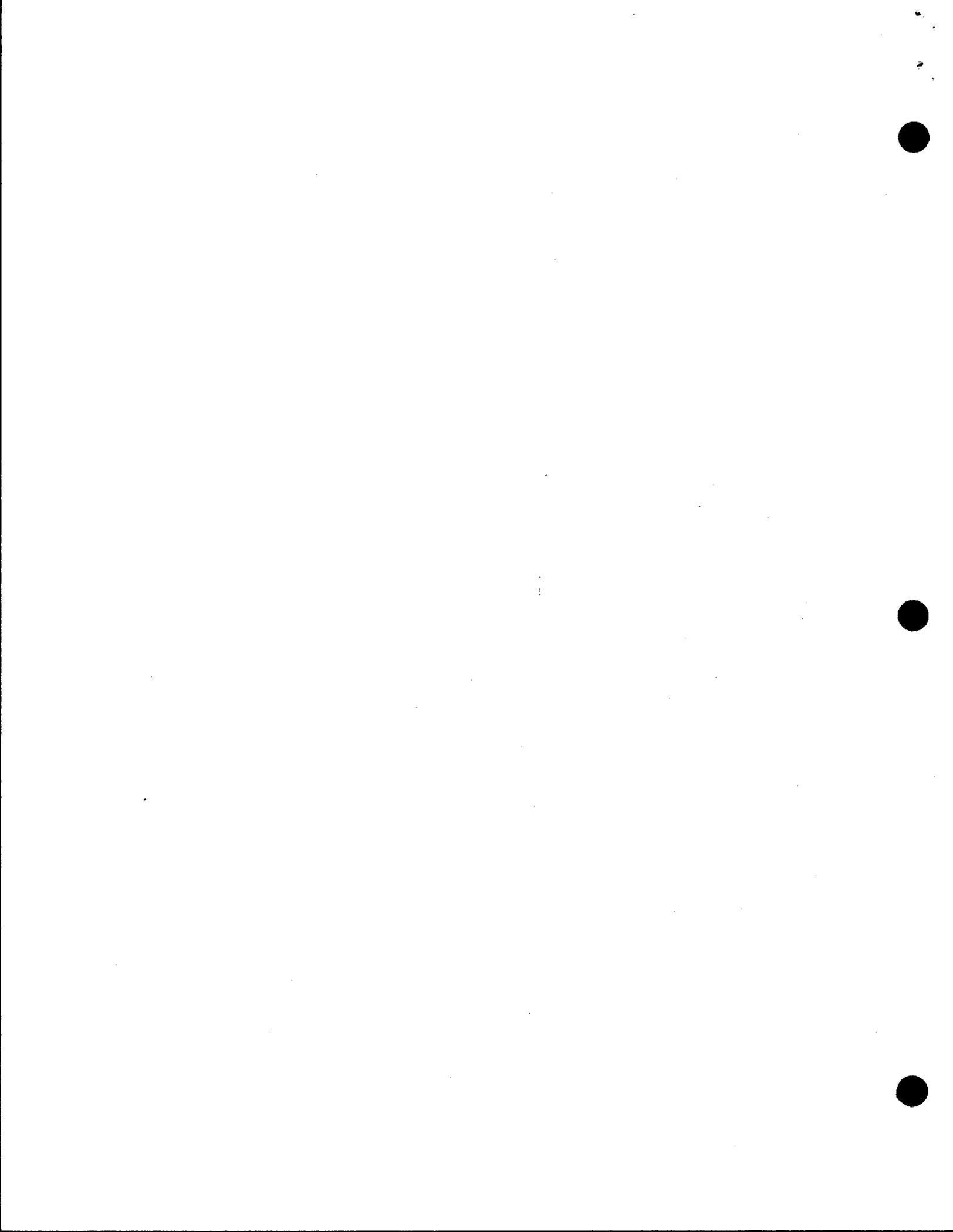
4. Require all excavated soils, fill and construction materials be stored and contained in a designated area that is located away from drainages and catch basin inlets to prevent inadvertent transport of materials into adjacent drainages and Arana Gulch. Prohibit fueling, cleaning or maintenance of equipment except in designated areas located as far from the drainages and ponds as possible. As a precaution, require contractor to maintain adequate materials onsite for containment and clean-up of any spills.



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Steve Hammack  
Superintendent of Parks

5/27/03  
Date



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## SECTION I. BACKGROUND

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### BACKGROUND

1. **Project Title:** DeLaveaga Golf Course Master Plan
2. **Lead Agency Name and Address:**  
City of Santa Cruz Parks and Recreation Department  
323 Church Street  
Santa Cruz, CA 95060
3. **Contact Person and Phone Number:** Susan Harris, (831) 420-5362
4. **Project Location:** DeLaveaga Park in the northern portion of the City of Santa Cruz  
(APN 009-471-01; 009-30-05, -06, -07; 009-441-01, -02)
5. **Project Applicant's/Sponsor's Name and Address:**  
City of Santa Cruz  
Parks and Recreation Department  
323 Church Street  
Santa Cruz, CA 95060
6. **General Plan Designation:** Park and Natural Areas
8. **Zoning:** PK - Parks
8. **Other public agencies whose approval is required:**
  - City of Santa Cruz – Future approval of golf course grading and Clubhouse use permits
  - California Regional Water Quality Control Board – Stormwater Pollution Prevention Plan (SWPP) Notification, Submittal and Implementation
  - State of California – Department of Military

### PROJECT OVERVIEW

The goal of the Master Plan is to identify improvements to sustain a high quality golf course. Of particular concern is poor drainage that creates soggy and ponded conditions on fairways in some areas. The project consists of a proposed Golf Course Master Plan that includes several improvements to upgrade the existing golf course facility, which are further described in Section II. Overall the proposed improvements include:

- Regrade fairways and driving range to improve drainage and overall playing conditions, including slope stabilization at the rear of the driving range.
- Install improved drainage collection systems throughout the course.
- Rebuild and/or improve greens, tees and bunkers.

- Rebuild cart paths.
- Construct a new clubhouse.
- Install 2 new permanent restrooms on golf course to replace existing temporary restrooms.
- Improve irrigation system.
- Install additional landscaping.
- Continue tree management.
- Improve marketing and promotion.

The majority of the work is proposed for areas contained within the existing developed golf course, except for a couple of drainage improvements as further described in the next section.

## PURPOSE OF INITIAL STUDY

This Initial Study (IS) has been prepared pursuant to the California Environmental Quality Act (CEQA). The purposes of an IS are to:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration (ND).
2. Enable a Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND.
3. Assist in the preparation of an EIR, if one is required.
4. Facilitate environmental assessment early in the design of a project.
5. Provide documentation of the factual basis for the finding in a ND that a project will not have a significant effect on the environment.
6. Eliminate unnecessary EIRs.
7. Determine whether a previously prepared EIR could be used with the project. [Per CEQA Guidelines Section 15063(c)]

According to CEQA Guidelines Section 15070, a public agency shall prepare a Negative Declaration or a Mitigated Negative Declaration when:

1. The IS shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
2. The IS identifies potentially significant effects, but:
  - a. Revisions in the project plans made before a proposed Mitigated ND and IS are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
  - b. There is no substantial evidence, in light of the whole record before the agency, that the project as described may have a significant effect on the environment.

## SECTION II. PROJECT DESCRIPTION

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### PROJECT LOCATION

The 18-hole DeLaveaga Golf Course is located within DeLaveaga Park, both of which are owned and operated by the City of Santa Cruz, except portions of Holes 5 through 6, which the City leases from the State of California. The golf course is located in the northeastern portion of the City (see Figure 1). DeLaveaga Park, totaling 565 acres, is the largest community park in the City of Santa Cruz. It provides a variety of recreational opportunities, including the DeLaveaga Golf Course. The golf course site is provided access via City streets from North Branciforte Drive to DeLaveaga Park Road and Upper Park Road.

### ENVIRONMENTAL SETTING

The DeLaveaga Golf Course is located along a ridgeline above the Prospect Heights residential area of Santa Cruz, overlooking the City of Santa Cruz. It consists of approximately 80 "maintainable" acres, excluding adjacent woodlands and drainages. Densely wooded, steep slopes border the site. The site is surrounded by woodlands, comprised of native oak, redwood, Douglas fir, madrone, and bay, as well as introduced cypress trees and eucalyptus groves. Eucalyptus trees dominate the southern and southeastern portions of the park. Arana Gulch borders DeLaveaga Park on the east, and Branciforte Creek borders the park on the west. The West Branch of Arana Gulch borders a portion of the eastern side of the golf course.

The golf course is confined to the ridge top topography, avoiding the numerous canyons surrounding the course. The greens, fairways, bunkers and tees are fully developed and intensely managed. The design of the golf course utilizes the surrounding existing vegetation to present an overall "natural" landscape, but also incorporates the use of numerous ornamental trees and shrubs throughout the course. The course supports one pond, which is used for irrigation purposes. Other features of the golf course include a clubhouse, driving range and paved parking area.

DeLaveaga Golf Course is located within the larger DeLaveaga Park, which surrounds the facility. Three existing structures border the golf course on the south: the Cabrillo College Stroke Center, the Santa Cruz County Consolidated Emergency Communications Center and the GTE cellular microwave facility. The Emergency Communications Center is a community facility and the Stroke Center and GTE cellular facility are private facilities. Single-family residential neighborhoods are located to the south and west of the park within the City of Santa Cruz. Rural residential uses, open space, and a conference facility are located to the west and north of the park and are located within the unincorporated area of Santa Cruz County.

## GOLF COURSE BACKGROUND

Constructed in 1970, the existing greens were built with native soils. Eleven of the greens had a subsurface drainage system installed to improve the putting surface, though the life expectancy of this system is approximately 7-12 years (Halsey Daray Golf, September 2002). Other improvements and maintenance activities have occurred throughout the years.

The DeLaveaga Golf Course is one of the "premier municipal golf courses in the State," based on an Operational Audit Report, completed by Economic Research Associates in May 2002 compaction (Halsey Daray Golf, September 2002). The golf course is operated under an Enterprise Fund, is self-supporting, and is divided into several separate businesses, lease contracts and operations, each responsible for promoting and marketing their individual services separately: pro-shop and greens fees; golf school and teaching; food and beverage; and golf course maintenance.

The golf course currently is open from sunrise to sunset, 7 days a week. The 18-hole course supports an average of 60,000-65,000 rounds of golf per day, with a peak of 260 rounds per day during July. The existing 2-story clubhouse structure is approximately 30 years old. The lower floor houses the pro-shop, service, restrooms and snack bar. The second floor houses a restaurant, banquet space, outside eating area and kitchen, all operated by a private vendor. The restaurant is open from 7 AM to 2 PM, 7 days a week. Seating capacity is approximately 60 people. Other facilities include a 164-space parking lot adjacent to the clubhouse, a driving range, a barbecue/picnic area, a corporation yard and 2 temporary restrooms on the golf course. The lower parking lot totals 48 parking spaces.

In addition to golf course facilities and operations, the City has applied to be certified as part of the Audubon Cooperative Sanctuary program. In doing so, the City has identified and begun implementation of a variety of maintenance and operational measures to manage wildlife habitat, reduce chemical use, conserve water, and protect water quality. The City expects that this certification process will be completed in one to two years.

## PROJECT COMPONENTS

### Purpose and Goals

The goal of the Master Plan is to identify improvements to sustain a high quality golf course. Of particular concern is poor drainage that creates soggy and ponded conditions on greens in some areas. With proposed improvements, it is believed that the number of annual rounds could increase to 80,000 or more (Halsey Daray Golf, September 2002).

### Project Elements

The project consists of a proposed Golf Course Master Plan that includes several improvements to upgrade the existing golf course facility, which are summarized below and further described in this section. Figure 2 illustrates the proposed Master Plan recommendations, which are also summarized below. Table 1 summarizes physical improvements proposed at each golf course hole.

FIGURE 1: PROJECT LOCATION



DELAVEAGA GOLF COURSE

LEGEND

■ NATURAL AREAS USED FOR PASSIVE RECREATION

--- CITY LIMITS

Source: City of Santa Cruz Planning Department, 1992



- Regrade fairways and driving range to improve drainage and overall playing conditions, including sand capping of fairways and slope stabilization at the rear of the driving range.
- Install improved drainage collection systems throughout the course.
- Rebuild and/or improve greens, tees and bunkers.
- Rebuild cart paths.
- Construct a new clubhouse.
- Install 2 new permanent restrooms on golf course to replace existing temporary restrooms.
- Improve irrigation system.
- Install additional landscaping.
- Continue tree management.
- Improve marketing and promotion.

### ***Golf Course Improvements***

Regrading Fairways, Roughs and Driving Range. This project component includes recontouring the most critical areas of fairways and roughs to ensure positive lateral water movement. Regrading will consist mostly of recontouring localized areas as opposed to massive grading of the entire fairway. It is envisioned that recontouring would be implemented at the following locations: Fairways 1, 4, 6, 7, 10, 13, 14, and 17. The regraded areas will be capped with a minimum 8-inch layer of sand. Subsurface drainage will be replaced where needed, and turf grass planted.

The driving range is proposed to be regraded for better drainage control, directing runoff to existing catch basins and perimeter concrete swales. Due to existing poor soils conditions, installation of artificial turf is proposed for the driving range.

Drainage/Erosion Control Improvements. Adequate soil moisture is essential for plant health, but soils that remain saturated for long periods of time promote shallow rooting and susceptibility to heat stress. At the DeLaveaga Golf Course, the problem of shallow rooting and boggy conditions is exacerbated by the water retentive nature of the nature heavy clay soils, and the propensity for soil compaction (Halsey Daray Golf, September 2002). The recommended drainage and irrigation upgrades are intended to help improve drainage conditions, specifically storm runoff, and to optimize irrigation efficiency. Generally, subsurface drainage will be installed at greens as shown on Figure 3, which illustrates a typical green and provides a conceptual schematic and cross section that shows subsurface conditions and drainage improvements. Other drainage improvements include installation of French drains, catch basins and perimeter swales. Specific improvements outlined in the Master Plan include:

- Add or upgrade intercept catch basins and down-slope drains, and install new catch basins and storm drains at critical locations, to include Holes 16 and 17.
- Stabilize ravine slopes at existing drain structures, to include Holes 13 and 17.
- Install curbing on cart paths to collect or direct runoff to the drainage system.
- Install subsurface perforated drain lines at tees.

Greens, Tees and Bunkers. All 18 greens and practice green are recommended to be rebuilt to USGA standards, which include a 12-inch core of precisely graded sand installed over a web of drainage pipe. The tees would have a sand cap layer over the subgrade similar to that recommended for the greens. The Master Plan also calls for construction of multiple tees at all Holes (typically 3 or more) to increase accessibility for a wider range of golfing skills. The Master Plan calls for rebuilding

bunkers that have not yet been rebuilt or reconstructed, and adding new bunkers at the following Holes: 1, 2, 3, 6, 7, and 14.

**Cart Paths.** The golf course has a full-length system of cartpaths, mostly constructed of asphalt with concrete in some places. Many portions are degraded and in some areas have been subjected to damage from roots of adjacent trees. The Master Plan calls for rebuilding the cart paths and rerouting the path in areas where it is susceptible to damage from tree roots. Generally, the path will be approximately 8-feet wide and constructed of concrete. Curbing would be added to the paths for traffic control, and in some areas for better drainage control. Cart path realignment would occur at Holes 1, 3, 8, 9, 11, 17, and 18.

**Retaining Wall Reconstruction.** An existing deteriorating wooden retaining wall is planned to be replaced on the slope to the southeast of Hole 5. It is envisioned that the existing wall will be replaced with a concrete wall for a distance of approximately 150 feet and a height of 4 feet, similar to what currently exists. The existing retaining wall design is not adequate and may need to be modified.

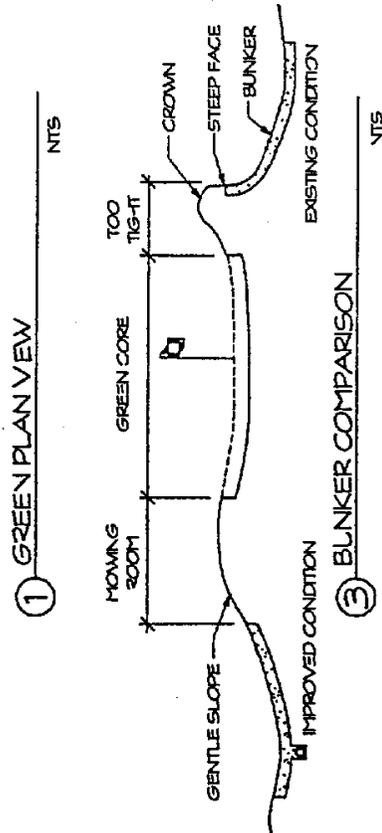
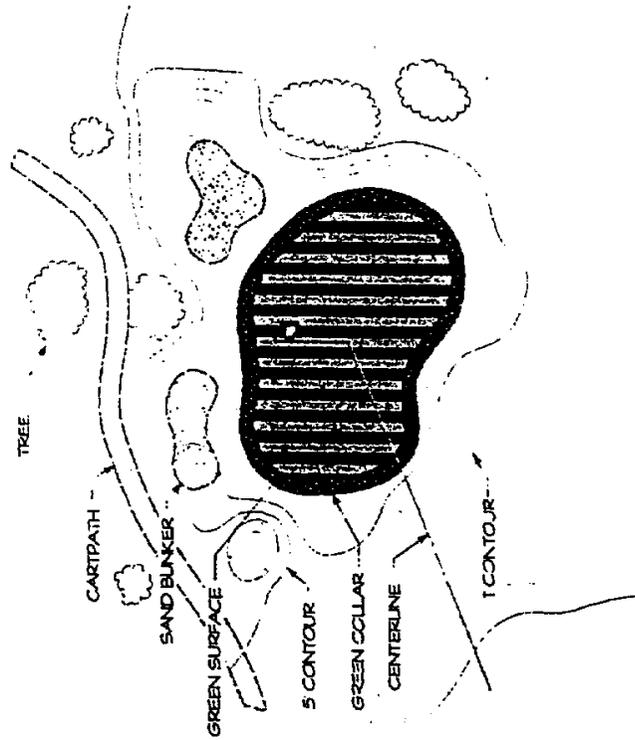
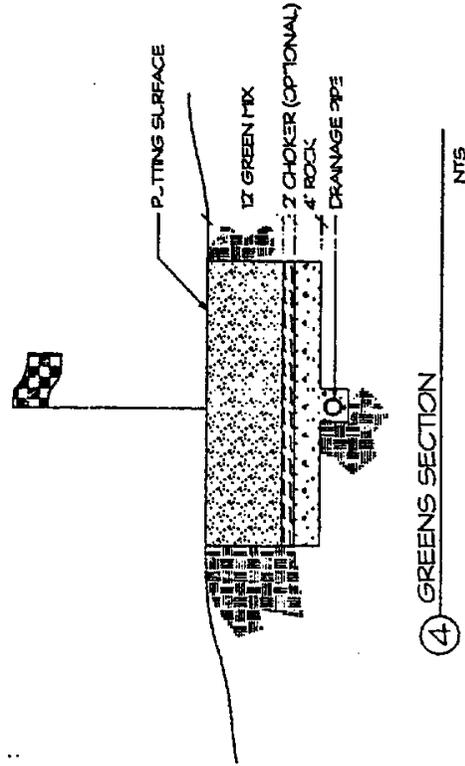
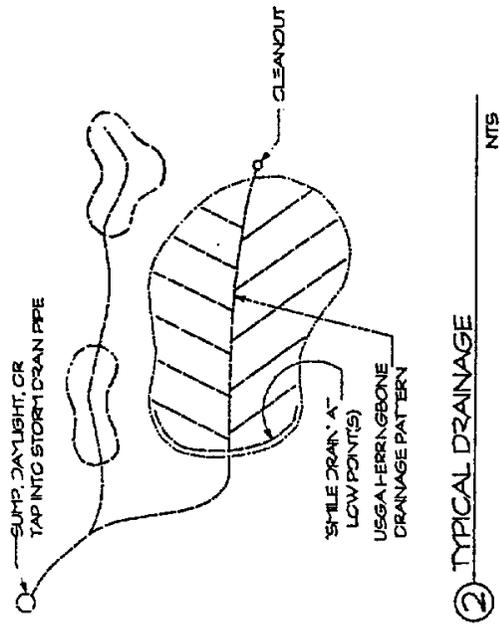
**TABLE 1: SUMMARY OF GOLF COURSE IMPROVEMENTS**

Improvement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Regrade/recontour fairway	X			X		X	X			X			X	X			X	
Rebuild/enlarge and/or relocate/reconfigure green	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rebuild/reconstruct bunkers	X						X	X		X	X	X			X	X		
Add new bunkers	X	X				X	X						X	X				
Install new storm drainage																X	X	
Other drainage & erosion control improvements													X					X
Realign cart path	X		X					X	X		X						X	X

### ***New Clubhouse***

A new approximately 10,000-square foot, single-story clubhouse is proposed adjacent to the 18<sup>th</sup> green, which will have the same seating capacity as the existing clubhouse, although banquet capacity will be expanded. The recommended features include: grill, bar and snack bar with 60 seats; banquet facility for 150 people; common kitchen area; a pro shop and office; and lobby, restrooms.

**FIGURE 3: GREENS CONSTRUCTION CONCEPT**



**Halsey Daray Golf**

**Typical USGA Greens Complex**

INITIAL STUDY  
MAY 2003

DELAWEAGA GOLF COURSE  
MASTER PLAN



Retention of the existing clubhouse was not deemed practical due to substantial renovation, code upgrades and costs. Additionally, the existing two-story configuration does not meet the requirements necessary to attract and accommodate tournaments or other functions (Halsey Daray Golf, September 2002). Once the new clubhouse is completed, the existing clubhouse would be demolished and the area used to expand the existing adjacent practice area.

### ***Other Facilities***

Two new, permanent restroom facilities are proposed to replace existing temporary facilities on the golf course. They are planned near the 5<sup>th</sup> and 14<sup>th</sup> tees. Each building would be approximately 600 square feet in size and fully accessible and include two unisex toilets with one toilet and sink in each.

An existing barbecue area adjacent to the driving range is planned to be upgraded and reconfigured to accommodate larger groups. Improvements include new paving, ADA access to the upper level, construction of a service pantry, new barbecue units, and potential new lighting and connections for power and a P.A. system.

The existing 6,400-square foot corporation yard facility has been undergoing improvements and is substantially completed except for the required employee break room, locker facilities, and exterior paving and fencing. Approximately 1,200 square feet of the yard facility is covered outside storage. These improvements are included in the Master Plan.

### ***Irrigation Improvements***

The Master Plan identifies a series of short-term improvements to the existing irrigation system to include new and replacement sprinklers and controller locations. Ultimately all lateral lines and mains will need to be replaced due to age.

### ***Landscaping and Maintenance Recommendations***

Tree Management. The Golf Course Master Plan recommends that the City continue implementation of the "DeLaveaga Golf Course Tree Program Master Plan" that was prepared in 1993, which includes tree thinning and removal to prevent heavily shaded areas on the course and boggy conditions. The proposed Master Plan does specifically identify one pine tree and several deciduous trees adjacent to Fairway 7 to be trimmed or removed. Additional tree planting is recommended adjacent to the existing parking lot and Fairway 9. Maintenance and operations recommendations suggest pruning tree roots around greens every three years or as necessary.

Landscaping. The Master Plan recommends area-specific landscaping improvements to provide better screening for golfers from vehicular traffic and other facilities. Specifically, these are recommended at Holes 5/6, 9 and 10. Specific planting recommendations are not provided, but the Master Plan recommends that a Landscape Plan be developed during the first phase of implementation of the Master Plan. The landscape plan would be directed to the new clubhouse, new and existing parking lots, the barbecue area, and expansion of wildlife areas as recommended in the Audubon Sanctuary Cooperative Program.

Operations and Maintenance. The Master Plan also formulates objectives and recommendations for long-term operations and maintenance. Topics generally include planting, size, mowing, fertilizer and herbicide use recommendations for the putting greens, tees, fairways, roughs, bunkers and driving range. Other topics addressed include maintenance of cart paths and structures, and equipment replacement and maintenance. This section of the plan also outlines an environmental program that includes development of wildlife areas within guidelines of the Audubon Cooperative Sanctuary and the golf course Integrated Pest Management programs.

### ***Marketing and Promotion***

Currently, the golf course does not have an overall comprehensive marketing plan, and promotion is performed by each individual lessee. The Master Plan recommends development of a unified and focused marketing program to better promote the golf course as a full service quality facility.

### **Implementation**

The project consists of a Master Plan for the DeLaveaga Golf Course, which will be implemented over time, depending on availability of funding. It is anticipated that the grading and drainage improvements will be initiated within 1-2 years. Detailed grading and drainage plans have not yet been prepared. However, as a worst case estimate for the purpose of this environmental analysis, it is assumed that regrading will result in excavation and removal of approximately 60,000 cubic yards of material with import of approximately 30,000 cubic yards of sand.

It is expected that grading and implementation of golf course improvements would occur over a 4 to 6-month period. The grading work would be expected to be completed within 2 months and would follow a hole-by-hole sequence. The new clubhouse is expected to be constructed in within the next several years, depending on available of funding, and would take approximately 12 months to complete. Upon completion, the existing clubhouse structure would be demolished.

## SECTION III. ENVIRONMENTAL CHECKLIST

### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agricultural Resources	X	Air Quality
X	Biological Resources		Cultural Resources	X	Geology / Soils
	Hazards & Hazardous Materials	X	Hydrology / Water Quality		Land Use / Planning
	Mineral Resources		Noise		Population / Housing
	Public Services		Recreation		Transportation / Traffic
	Utilities / Service Systems		Mandatory Findings of Significance		

### ENVIRONMENTAL CHECKLIST

1. A brief explanation is required (see Section V--"Environmental Evaluation") for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question (see references listed in Section VI). A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that any effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated: applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier Analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case a discussion should identify the following on attached sheets:
  - a) *Earlier analysis used.* Identify earlier analyses and state where they are available for review.
  - b) *Impacts adequately addressed.* Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) *Mitigation measures.* For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V - Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>1. AESTHETICS. Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista? (Source VII.2-Map CD-3)				X
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area				X
<b>2. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</b>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (Source VII.2-Map EQ-5)				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				X
<b>3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute to an existing or projected air quality violation?		X		

3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V - Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X
<b>4. BIOLOGICAL RESOURCES. Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (VII.8)		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V- Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>5. CULTURAL RESOURCES. Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5? (VII.2)				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5? (VII.2)				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
<b>6. GEOLOGY AND SOILS. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</b>				
a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. (Source VII.2)				X
b) Strong seismic ground shaking? (Source VII.3-Map S-5)			X	
c) Seismic-related ground failure, including liquefaction? (Source VII.2-Map S-6)				X
d) Landslides?				X
e) Would the project result in substantial soil erosion or the loss of topsoil?		X		
f) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
g) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X

3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V- Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?				X
<b>7. HAZARDS AND HAZARDOUS MATERIALS. Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 3 mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (Source VII.2-Map S-11)				X

3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V - Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>8. HYDROLOGY AND WATER QUALITY. Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?				X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (for example, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (Source VII.2-Map EQ-2)				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood-hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows? (Source VII.3-Map S-7)				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (Source VII.3-Map S-9)				X
j) Inundation by seiche, tsunami, or mudflow? (Source VII.2-Map S-8)				X

3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V - Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>9. LAND USE AND PLANNING. Would the project:</b>				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?				X
<b>10. MINERAL RESOURCES. Would the project</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (Source VII.2)				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X
<b>11. NOISE. Would the project result in:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies? (Source VII.2-Maps EQ-13 and EQ-14)				X
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?				X
c) Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

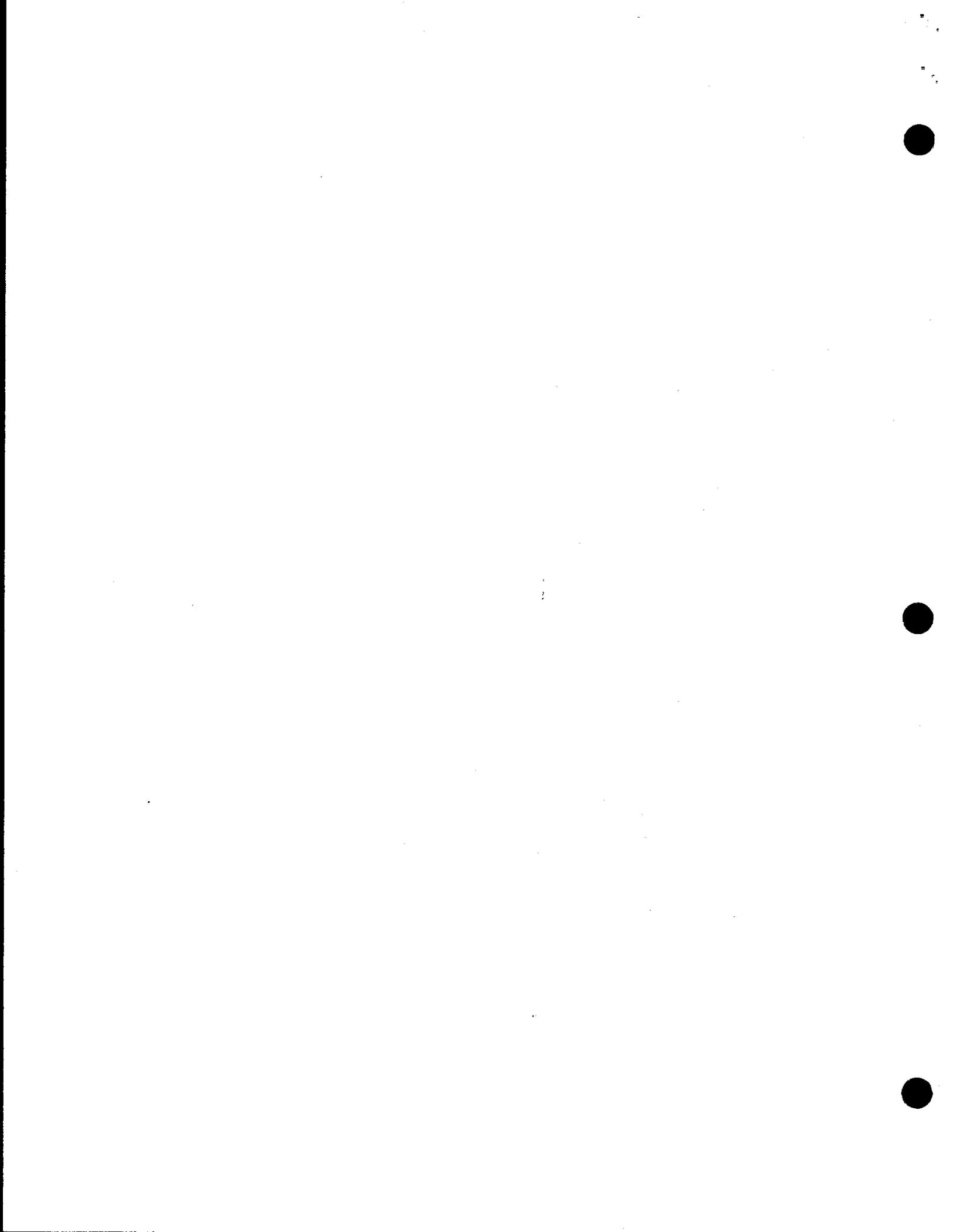
3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V - Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>12. POPULATION AND HOUSING. Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
<b>13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:</b>				
a) Fire protection?				X
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X
<b>14. RECREATION. Would the project</b>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V - Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>15. TRANSPORTATION/TRAFFIC. Would the project:</b>				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (for example, result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (for example, bus turnouts, bicycle racks.				X
<b>16. UTILITIES AND SERVICE SYSTEMS. Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction or which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X

3.3 ENVIRONMENTAL IMPACTS (Explanation of answers are found in Section V - Environmental Evaluation)	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
<b>17. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:</b>				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

## DISCUSSION OF ENVIRONMENTAL EVALUATION

See Section V--ENVIRONMENTAL EVALUATION for discussion.

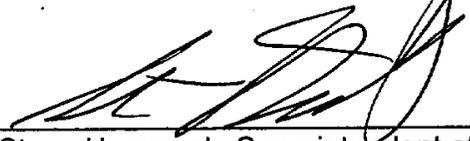


## SECTION IV. ENVIRONMENTAL DETERMINATION

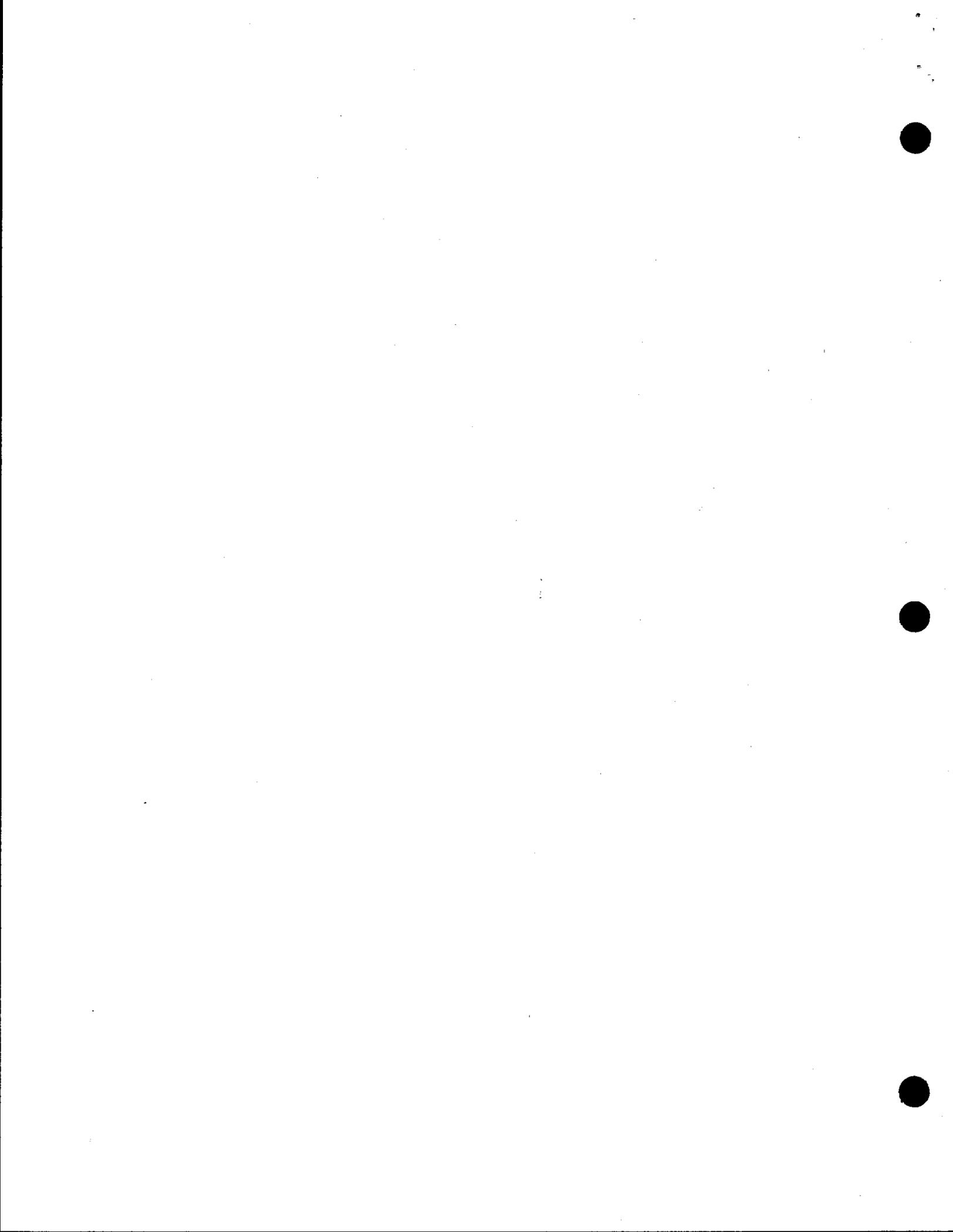
### DETERMINATION

On the basis of this initial evaluation:

I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

  
 Steve Hammack, Superintendent of Parks

5/27/03  
 Date



## SECTION V. ENVIRONMENTAL EVALUATION

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### 1. AESTHETICS

**a-b) Effects Upon Scenic Vistas/Resources.** The project site is located at upper elevations above a ridgeline bordering the northeastern boundary of the City of Santa Cruz. The golf course site is located adjacent to eucalyptus and other trees that form part of the forested ridgeline that extends south from DeLaveaga Park to the residential area along Prospect Drive. This ridgeline is a prominent visual feature from both Highway 1 and local streets, and is visible from areas to the south, west and east, including Highway 1 between the Emeline Avenue and Soquel Avenue exits, from Morrissey Boulevard, Soquel Avenue between Morrissey and Soquel Avenue, Branciforte Drive, and the Prospect Heights neighborhood. This area is designated in the City's General Plan as an important natural feature providing scenic views of the forested ridge skyline. The golf course, however, is not and will not be visible from these areas and is screened by existing tree cover. The project will not result in removal of trees or scenic features or have any impact upon scenic views of the ridgeline as the site is not visible from public areas outside of the golf course.

**c-d) Effects on Visual Character of the Surrounding Area.** The proposed golf course improvements will result in modifications to the existing course that will not alter the overall visual setting of the area, which is characterized by the golf course and surrounding woodlands. The planned regrading, drainage improvements, and other course improvements will have minimal, if any visual effects. The new clubhouse will be of a similar size as the existing building, but would be one-story and of a design that is typical of golf course structures (see Figure 4). Additionally, the building replaces an existing building that will be demolished upon completion of the new structure. Thus, the project would not result in a substantial degradation of the existing visual character and quality of the golf course, and structural improvements would not be visible from offsite locations. There would not be an increase in overall lighting or creation of new sources of light or glare.

### 2. AGRICULTURAL RESOURCES

The project site is not located on or immediately adjacent to agricultural lands and would have no effect upon agricultural resources.

### 3. AIR QUALITY

**(a) Conflicts with Applicable Air Quality Plan.** The project consists of adoption and implementation of a Master Plan for the city-owned DeLaveaga Golf Course, which primarily seeks to maintain and improve existing recreational uses. The project will not result in new population or growth or inconsistencies with the existing air quality management plan for the region.

**(b-d) Air Emissions.** The project site is located in the Monterey Bay Air Pollution Control District (MBUAPCD), which includes Santa Cruz, Monterey and San Benito Counties, which has jurisdiction over the North Central Coast Air Basin (NCCAB), in which the project site is located. The NCCAB currently is in attainment for the federal PM<sub>10</sub> (particulate less than 10 microns in diameter) standards and state and federal nitrogen dioxide, sulfur dioxide and carbon monoxide standards. In March 1997, the air basin was redesignated from a "moderate non-attainment" area for the federal ozone standards to a "maintenance/attainment" area. The NCCAB is classified as a non-attainment area for the state ozone and PM<sub>10</sub> standards.

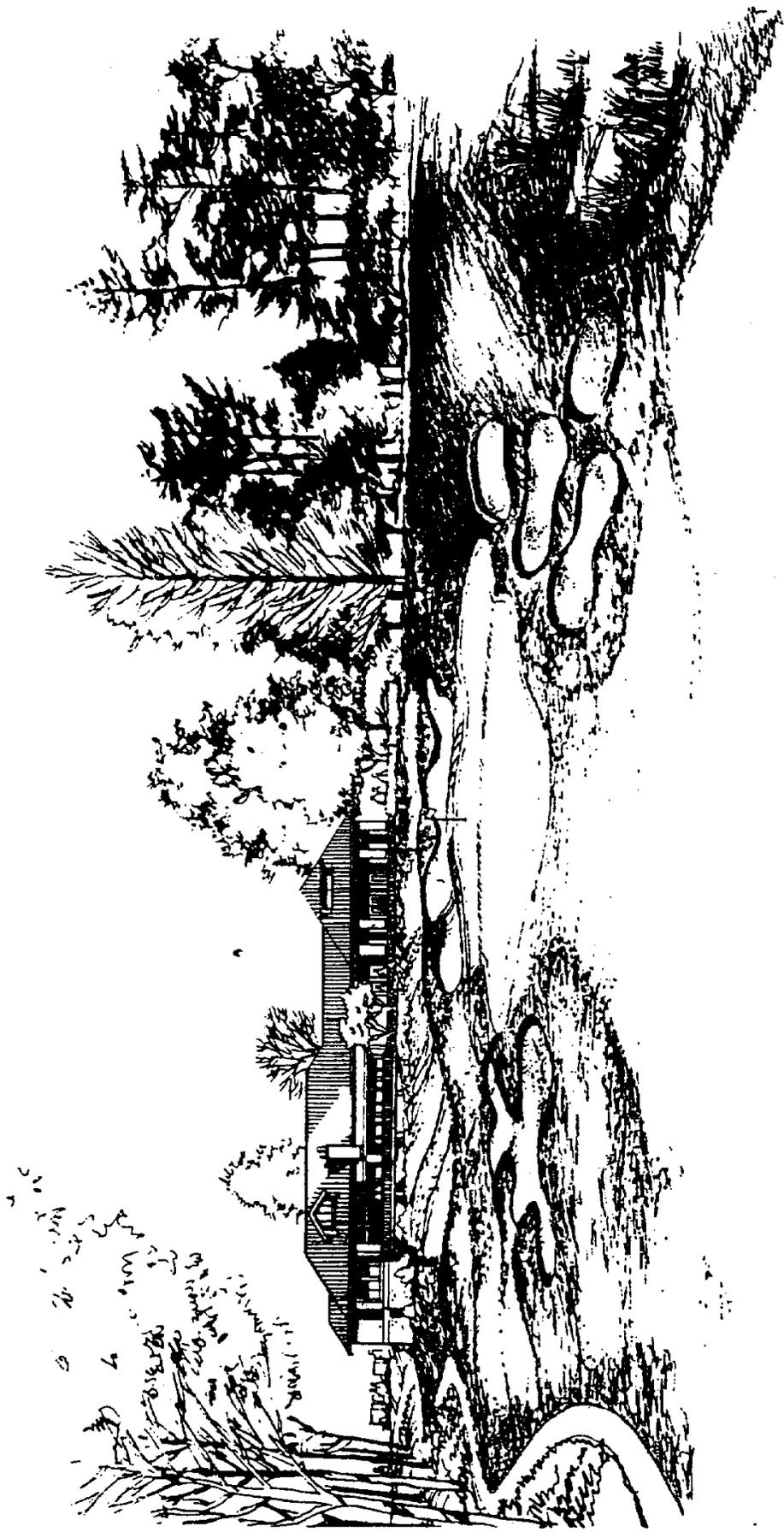
**IMPACT ANALYSIS:** The project will not result in a new source of stationary or ongoing permanent mobile emissions. The project will not result in new or expanded facilities that would result in additional traffic generation and vehicular emissions. The improvements could permit additional rounds during winter periods when existing drainage problems limit course playable. Thus, the project will not significantly contribute to existing or projected air quality violations, and thus, will not result in a cumulatively considerable net increase for ozone or PM<sub>10</sub>, or expose sensitive receptors to substantial pollutant concentrations. Short-term construction emissions are discussed below.

Future implementation of the Master Plan will involve regrading and recontouring portions of fairways at 8 of the existing 18 golf course fairways to improve drainage conditions. There also will be minor regrading for bunkers and tees at nearly all holes. Additional minor grading would occur for construction of the new clubhouse and golf course restrooms. Future grading activities could result in short-term, localized increase in dust and construction equipment emissions. The construction equipment emissions are not expected to be significant given the temporary and limited nature of the activity.

Grading and excavation activities could generate dust and PM<sub>10</sub>. Information from the Monterey Bay Unified Air Pollution Control District (MBUAPCD) and its "CEQA Air Quality Guidelines," indicate that 8.1 acres could be graded per day with minimal earthmoving or 2.2 acres per day with grading and excavation without exceeding the PM<sub>10</sub> threshold of 82 lbs/day.

Grading would be localized within and adjacent to fairways, and could total approximately 25 acres throughout the golf course. The construction sequencing would move from hole to hole. On a given day, grading could approach 2-2.5 acres on the larger fairway areas, which could approach or exceed MBUAPCD standards for significance. Although grading plans have not yet been prepared, it is roughly estimated that approximately 60,000 cubic yards (cy) of material would be graded, and approximately 30,000 cy of sand would be imported. Additionally, there would be periods of time when excavated soils and/or imported fill materials are stockpiled on the site. There would also be minor grading for construction of the new clubhouse and golf course restrooms, but these areas will be constructed at some time in the future after the golf course regrading is completed. The clubhouse and restroom areas total approximately 0.3 acres, which is well below the threshold for significance for PM<sub>10</sub>.

**FIGURE 4: CLUBHOUSE CONCEPTUAL DESIGN**



**Hole 18 - Sketch No. 1**



**Halsey Darray Golf**



Thus, dust generation and potential PM<sub>10</sub> emissions resulting from the short-term temporary grading on the golf course could be significant, but subsequent grading for other facilities would be less-than-significant. Implementation of Mitigation Measure #1 will reduce impacts to a less-than-significant level and is recommended for all project grading activities to dust generation.

**MITIGATION MEASURE 1:** Implement "Best Management Practices" (BMPs) (see section 5.0 of this Initial Study for further discussions of BMPs) where grading will occur to reduce generation of dust and potential PM<sub>10</sub> emissions. Such practices would include, but not be limited to, the following:

- Water all active construction areas daily.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

(e) Odors. Adoption and implementation of the proposed Golf Course Master Plan will not result in generation of odors to adjacent recreational users or residents.

#### 4. BIOLOGICAL RESOURCES

The principal habitat on the golf course is ornamental landscaping, with introduced Monterey cypress (*Cupressus macrocarpa*) and Monterey pines (*Pinus radiata*) used to create an open woodland character. The surrounding vegetation is a complex mosaic of coast live oak (*Quercus agrifolia*) woodlands, mixed hardwood-conifer forest, and Monterey pine and eucalyptus (*Eucalyptus* sp.) groves. Despite its developed nature, the golf course likely supports use by a wide variety of wildlife species, due to the site's location to an adjacent largely undeveloped woodland.

(a) Special Status Species. A biological review of the golf course and immediate surrounding area was conducted as part of the preparation of this Initial Study to identify potentially significant wildlife resources, including habitat for special status species, that may be adversely impacted by the implementation of the Golf Course Master Plan, and to provide recommendations to avoid/minimize significant impacts, as needed. (See Source VII. 8, Mori.) The golf course improvements will be conducted within the existing developed golf course footprint, and no special status plant species would be impacted.

A review of potential special status wildlife species (Source VII.8) identified a potential for Cooper's hawk nesting in adjacent woodlands, as further discussed below. Other special status species occurring within the project area include monarch butterfly and steelhead trout, which are further discussed below. Other special status species were not considered further

due to one or more of the following reasons: (1) the absence of suitable habitat on-site, as determined through the assessment or previous study (e.g., steelhead, red-legged frog, pond turtle, woodrat, pallid bat,); (2) the species' occurrence on the project site is expected to be as an aerial transient or occasional as a non-breeder (e.g., golden eagle, merlin, sharp-shinned hawk, yellow warbler); and/or (3) the project would not result in habitat loss in the adjacent woodlands (e.g., monarch butterfly, pallid bat, dusky-footed woodrat).

Cooper's Hawk. The nesting population of Cooper's hawks is a state species of special concern (CDFG 2003). During the breeding season, Cooper's hawks prefer deciduous, mixed-evergreen forests and deciduous riparian woodlands. In California, nests are usually built in oaks. This species is a rare breeder, but widespread in the forested mountainous regions of Santa Cruz County. The local breeding season probably spans April through July. Cooper's hawks are uncommon migrants and winter visitors (Source VII. 8). No known nesting records are documented for the DeLaveaga Park vicinity, and no Cooper's hawks were observed during the site reconnaissance, but focused surveys for this species were not conducted. The live oak woodlands and mixed conifer-hardwood forests surrounding the golf course provide potential nesting habitat for Cooper's hawks. Cooper's hawks also are expected to occur on the project site as a regular visitor during migration and in winter.

**IMPACT ANALYSIS:** Future construction of golf course improvements would be contained within the existing developed area, but could result in potential disruption to nesting species, including Cooper's hawks, in the adjacent surrounding woodlands, if any are present, as a result of construction-related noise and proximity of activities.

**MITIGATION MEASURE 2:** Schedule construction activities outside of the nesting bird period (1 March - 31 July). If construction, including tree removal, is scheduled to begin between 1 March and 31 July, a pre-construction nesting survey should be conducted by a qualified wildlife biologist to determine if nesting birds are on or in the immediate vicinity of the project site. If active nests of protected species are found, delay construction until 1 August or after the wildlife biologist has determined that nesting activities have ceased. If construction activities are scheduled to begin outside of the nesting period, no further surveys are recommended.

Steelhead Trout. Steelhead trout (*Oncorhynchus mykiss*) is federally listed as a threatened species, that is known to occur in Arana Gulch, located to the east of the site. Adult steelhead migrate upstream typically between December and May. Smolts migrate downstream typically from March through June. Steelhead require spawning sites with gravels and small cobbles (from ¼" to 3 ½" diameter) having a minimum of fine material (sand and silt) mixed with them and with good flows of clean water moving over and through them. Based on the fishery surveys and assessment conducted as part of the proposed *Arana Gulch Watershed Enhancement Plan*, there are migrational barriers and limited rearing habitat affect steelhead habitat in Arana Gulch (Source VII.1).

The Arana Gulch Watershed Alliance (AGWA) was formed with a mission is "to conserve, protect, restore and enhance the natural resources throughout the Arana Gulch Watershed." The *Arana Gulch Watershed Enhancement Plan* was adopted in 2002 by the Santa Cruz County Resource Conservation District with a key objective to improve steelhead habitat in Arana Gulch, through reduction of sediment sources and removal of fish barriers. Even the

best habitat in Arana Gulch, at least at present, is rated as substandard relative to other streams in Santa Cruz County (Alley, May 2000). With less sand in the channel, the number of young fish rearing in Arana Gulch is expected to increase, but is likely to remain small relative to other streams in the Santa Cruz Mountains. Nonetheless, the relatively large number of yearling fish observed in the east and central branches suggest that Arana Gulch can sustain a run worth enhancing (Source VII.1).

**IMPACT ANALYSIS:** Future regrading of golf course fairways could result in erosion into adjacent canyons, if not properly managed, with potential indirect effects upon steelhead habitat in Arana Gulch due to sedimentation. Turbidity and sedimentation could occur from grading, if not construction activities are properly contained, resulting in soil and surface debris transported downslope into the Arana Gulch or adjacent drainages that flow into Arana Gulch. This is primarily a concern in the areas adjacent to Fairways 13, 14, and 17, which drain to or toward the West Branch of Arana Gulch. Grading would be localized within and adjacent to fairways, and could total approximately 25 acres throughout the golf course. Although grading plans have not yet been prepared, it is roughly estimated that approximately 60,000 cubic yards (cy) of material would be graded, and approximately 30,000 cy of sand would be imported.

The proposed project will not result in direct removal of habitat or construction within any waterways. Although indirect impacts are not considered significant because regrading activities would not occur over the entire golf course and would be confined to localized, existing developed areas, any effect upon the habitat of a federally and/or state listed species would be considered potentially significant. Sediment and turbidity can adversely affect fish and other aquatic species by impacting gills and respiratory functions, burying food sources, alter pool-riffle habitats and impact smaller riparian and instream emergent vegetation. Implementation of Mitigation Measures #3 and 4 identified below in Section 8 (Hydrology and Water Quality), will control grading and construction practices to prevent sediments and other materials from entering adjacent drainages and Arana Gulch and would reduce the impact to less-than-significant.

**(b) Sensitive Habitat Areas.**

**Monarch Butterflies.** A portion of Delaveaga Park is a mapped monarch butterfly habitat area as identified in the City's General Plan (Map EQ-9). This area is located at the southern edge of Delaveaga Park near the existing Emergency Communications Center. According to previous surveys conducted for the Emergency Communications Center and the Delaveaga Vegetation Management Plan, there have been past observations of monarchs within Delaveaga Park (Source VII.6) A monarch survey conducted by monarch Butterfly Specialist, Kingston Leong in October through December of 1996, observed Monarch butterflies in the eucalyptus area northeast of the Emergency Communications Center site, but concluded that the eucalyptus grove in the vicinity does not possess the type of microclimatic conditions necessary to support overwintering butterflies either as an autumnal or permanent site (Ibid.).

Implementation of the proposed Golf Course Master Plan would not encroach within potential monarch butterfly use areas, except for potential extension of a sewer line. However, the project would not result in removal of trees for the course improvements, nor is the grove at Delaveaga Park a known overwintering site.

Oak Woodlands. One of the more notable features of the surrounding vegetation is the presence of oak woodlands. In general, oak woodlands are considered critical habitats for the conservation of many bird and mammal species. The statewide loss of oak woodlands over the past 50 years and decline of regeneration of some oak species has become a growing concern statewide. Over 300 vertebrate species are known to use oak trees. Noteworthy features of oak habitats include acorns, snags and cavity-bearing trees. As a seasonal food, acorns play an important role in the survival of many species of wildlife in fall and winter, as large mature oak can produce thousands of acorns during a favorable year (Source VII. 8). Mature oak trees frequently bear snag limbs, and natural cavities as a result of limb scars. Snags are important resources for such uses as nesting, roosting, foraging, caching and wintering, but especially critical to primary cavity-nesters, such as woodpeckers, which prefer dead trees and limbs for excavation of roost and nest sites (Ibid.).

Implementation of the proposed Master Plan will not result in removal of oak trees, although oak trees are present along the edge of the golf course construction zones in some areas, especially adjacent to Holes 1, 2, 3, and 10. Measures to protect adjacent oak trees during construction should be developed and implemented in consultation with the City Urban Forester.

**RECOMMENDATION:** Implement measures to protect existing oak trees located adjacent to construction zones in order to minimize damage to the trees and their root zones during construction, including, but not limited to the following:

- Require that the City Urban Forester be consulted via a pre-construction inspection to insure that all tree protection recommendations are in place.
- Install construction fencing around the oak trees for protection during construction to prevent inadvertent grading or disturbance/compaction by construction equipment, especially at the following sites: Fairways 1, 2, 3, and 10. Route underground utilities outside the tree protection zone.
- Contact an arborist if tree roots over one inch are encountered during grading and construction.

(c) Wetlands. The existing golf course irrigation pond enhances the habitat values of the golf course. The pond supports species typically associated with freshwater marshes. These species include great blue heron, mallard (*Anas platyrhynchos*), American coot (*Fulica americana*) and red-winged blackbirds (*Agelaius bicolor*). The project will not result in disruption to this existing feature, although the Master Plan map identifies a pond expansion area. Indirect impacts related to grading and erosion could result if grading operations are not properly managed. Implementation of Mitigation Measures #3 and 4 in the Hydrology and Water Quality section below will insure that erosion and sedimentation are reduced or avoided.

(d) Wildlife Movement/Breeding. The project will not alter the existing uses at the golf course or result in impediments to wildlife movement. See Section 4a above regarding bird nesting. The potential use of invasive, non-native species for additional landscaping could result in the spread of exotics into the adjacent surrounding woodlands, diminishing the woodlands' habitat values.

**RECOMMENDATION:** Select plant species that are not considered invasive exotics. Plant species selection should be developed in consultation with a qualified specialist.

**(e) Consistency with Local Regulations or Policies.** Adoption and implementation of the DeLaveaga Golf Course Master Plan will not conflict with local policies or regulations. Future golf course construction will not result in removal of trees except for one pine tree and thinning or removal of several existing deciduous trees adjacent to Fairway 7. These are trees included within golf course landscaping and are not located within adjacent native woodlands.

A Tree Program Master Plan was prepared for DeLaveaga Golf Course in 1993 and identifies tree thinning, removal and replanting recommendations throughout the golf course. The Plan calls for removal of potentially dangerous or diseased trees, and improving and intensifying planting of native tree species. Under the existing approved golf course Tree Program Master Plan, trees are allowed to be removed and/or thinned without additional review under the City's Heritage Tree Ordinance. Removal would not result in biological resource impacts as they have been planted as part of the golf course landscape. Furthermore, additional tree planting is recommended in the proposed Golf Course Master Plan adjacent to the existing parking lot and Fairway 9, which would offset the planned tree removal.

**(f) Conflicts with Local Policies/Habitat Conservation Plans.** There are no Habitat Conservation or Natural Community Conservation Plans for the project area.

## 5. CULTURAL RESOURCES

The project site is not identified as containing historical resources and is not located in a "sensitive archaeological area" as mapped in the City's General Plan (Map CR-2).

## 6. GEOLOGY AND SOILS

**(a-c) Seismic Hazards.** The project site is located in a seismically active region of California and the region is considered to be subject to very intense shaking during a seismic event. The City of Santa Cruz is situated between two major active faults: the San Andreas, approximately 11.5 miles to the northeast and the San Gregorio, approximately 9 miles to the southwest. There are no faults zones or risk of fault rupture within the City (City of Santa Cruz, 1994). According to maps contained in the City of Santa Cruz General Plan, the site is located within an area subject to "low intensity shaking during a seismic event," (Map S-5), but is not located in an area of potential liquefaction (Map S-6). The project includes construction of a new clubhouse and 2 restrooms on the golf course. The facilities will be designed in accordance with current Uniform Building Code seismic design requirements.

**(e) Soils and Erosion.** The golf course site is located adjacent to steep slopes that are identified in the City's General Plan as being areas of slopes greater than 30% (Map EQ-7) and of high and very high erosion potential (Map EQ-6). According to the Soil Survey of Santa Cruz County, two soil types are found on the golf course site. Watsonville Loam is the primary soil type covering the golf course. Characteristics of the Watsonville Loam complex include slow permeability and slight erosion hazards. Some limited and adjacent areas are classified as Los

Osos loam soils that are moderately deep and well-drained. Permeability is moderate and erosion hazard is moderate (Source VII.10).

**IMPACT ANALYSIS:** Although the onsite soils are classified as having a slight to moderate erosion potential, the project could result in indirect impacts related to grading and erosion if grading operations are not properly managed. Future regrading of golf course fairways could result in erosion into adjacent canyons as discussed above in Section 4 (Biological Resources). Grading would be localized within and adjacent to fairways, and could total approximately 25 acres throughout the golf course, with additional minor grading for the new clubhouse and golf course restrooms. Although grading plans have not yet been prepared, it is roughly estimated that approximately 60,000 cubic yards (cy) of material would be graded, and approximately 30,000 cy of sand would be imported. Implementation of Mitigation Measures #3 and 4 identified below in section 8 (Hydrology and Water Quality), will control grading and identifies construction practices to prevent sediments and other materials from entering adjacent drainages and Arana Gulch and would reduce the impact to less-than-significant.

## 7. HAZARDS AND HAZARDOUS MATERIALS

**(a-d) Hazardous Materials/Wastes.** The project consists of adoption and implementation of a Golf Course Master Plan, which would not involve the use of hazardous materials that would constitute a threat of explosion or other significant release that would pose a threat to neighboring properties. The project does not involve the transport, use, or disposal of hazardous materials or wastes and would not result in creation of a public health hazard. The project site is not located on a hazardous material site.

**(e-f) Airport Safety.** The project site is not located near a public airport or private airstrip.

**(g) Emergency Response Plans.** Adoption and Implementation of the DeLaveaga Golf Course Master Plan would have no effect on or interfere with adopted emergency response or evacuation plans for the area. Temporary construction activities would have no effect on or interfere with adopted emergency response or evacuation plans for the area.

**(h) Wildland Fire Hazard.** The golf course site is located adjacent to an area mapped as a fire hazard area in the City of Santa Cruz General Plan (Map S-11). The project would not result in construction of habitable structures or new development within wildland areas subject to fire hazards or result in increased human exposure to wildland fire hazards. The irrigated golf course helps reduce the risk of wildland fire hazards (Source VII.3).

## 8. HYDROLOGY AND WATER QUALITY

**(a,f) Water Quality.** The project will not result in a new or expanded golf course in which operational practices, i.e., use of fertilizers and pesticides, would affect water quality. Additionally, in 1998 the City Council passed a "Integrated Pest Management" (IPM) policy requiring all City Departments and contractors to "eliminate or reduce pesticide applications on

City property to the maximum extent feasible." In 2000, the City began implementing a comprehensive IPM program, including at the DeLaveaga Golf Course, which will remain in effect.

**IMPACT ANALYSIS:** As discussed above under section 4 (Biological Resources), construction activities would not encroach onto adjacent drainages, the onsite pond, or Arana Gulch, but if not properly managed, excavated soils, fill material and/or other construction materials could be inadvertently transported into these areas. In addition, potential equipment fuel spills could affect water quality within the Arana Gulch watershed. Construction of a replacement retaining wall adjacent to Hole 5 also should be managed to prevent sediments from being discharged into the adjacent drainage in that area.

Grading would be localized within and adjacent to fairways, and could total approximately 25 acres throughout the golf course, with additional minor grading for the new clubhouse and golf course restrooms. Although grading plans have not yet been prepared, it is roughly estimated that approximately 60,000 cubic yards (cy) of material would be graded, and approximately 30,000 cy of sand would be imported. Although the grading activities are expected to only take 2 months, it is anticipated that course improvements will not be initiated until the late fall season and could extend into the winter season in order to avoid times of peak golf course use. Thus, measures to contain excavated soils, imported sand material, and stormwater runoff from the construction sites, will need to be carefully implemented to prevent sedimentation and water quality impacts into adjacent drainages and water bodies.

Implementation of Mitigation Measures #3 and 4 identified below, will control grading and construction practices to prevent sediments and other materials from entering adjacent drainages and Arana Gulch and would reduce the impact to less-than-significant. In addition, the Clean Water Act section 402 regulates construction-related stormwater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program, administered by the EPA. In California, the State Water Resources Control Board oversees this program through the Regional Water Quality Control Boards (RWQCB). Under this program, projects that disturb more than 1 acre of land must file a public notice of intent to discharge stormwater and to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which includes measures that will be implemented to prevent soil erosion and discharge of other construction-related pollutants (e.g., petroleum products, solvents, paints) that could contaminate nearby water resources. Implementation of the proposed Master Plan will result in future golf course grading and land disturbance of approximately 25 acres, and will require preparation and implementation of a SWPPP in accordance with State requirements.

**MITIGATION MEASURE 3:** Implement erosion control measures during and after construction to prevent inadvertent erosion and offsite transport of sediments into Arana Gulch, including, but not limited to:

- Install well-anchored silt fences and/or straw bales at the top of drainages adjacent to the following Holes/Fairways: 1, 3, 5, 8, 9, 10, 13, 17; adjacent to the retaining wall construction zone; the driving range; and the onsite pond in

- order to prevent any physical movement or placement of materials or equipment outside the construction area into drainages and waterways.
- Limit ground disturbance and vegetation removal during construction to the minimum necessary to complete work on a given hole/fairway.
  - Complete work prior to the onset of the rainy season (generally November 1), if possible, and avoid grading during the rainy season (generally between November 1 and April 1).
  - If excavation activities extend beyond November 1, require implementation of all measures to prevent silt laden water from entering adjacent drainages, the onsite pond and Arana Gulch. Require use of sediment/detention basins or similar protection to temporarily contain construction runoff and to prevent sediment-laden runoff from entering drainages. Install filter fabric at drain inlets.
  - Protect any disturbed areas during the rainy season with appropriate erosion control measures. Prior to November 1, disturbed soils at each site should undergo erosion control treatment consisting of temporary seeding, straw mulch or other measures pursuant to an approved erosion control plan.
  - Immediately revegetate disturbed areas with appropriate plant species.

**MITIGATION MEASURES 4:** Require all excavated soils, fill and construction materials be stored and contained in a designated area that is located away from drainages and catch basin inlets to prevent inadvertent transport of materials into adjacent drainages and Arana Gulch. Prohibit fueling, cleaning or maintenance of equipment except in designated areas located as far from the drainages and ponds as possible. As a precaution, require contractor to maintain adequate materials onsite for containment and clean-up of any spills.

**(b) Groundwater.** The proposed project activities do not entail the withdrawal of groundwater, interception of an aquifer, or changes to groundwater recharge capability.

**(c-e) Drainage Patterns.** The DeLaveaga Golf Course is located within the Arana Gulch watershed. Arana Gulch is located within in the unincorporated portion of Santa Cruz County and the City of Santa Cruz. It begins in the hills above Chaminade and flows through the Santa Cruz Yacht Harbor into the Monterey Bay. The Arana Gulch watershed drains a 3.5 square-mile area. The eastern edge of the golf course drains into the West Branch of Arana Gulch. Mean annual precipitation can range from approximately 26 inches per year along the coast to 34 inches per year near the headwaters of Arana Gulch. Most of the rain in Arana Gulch and Santa Cruz County falls during the months of November to March (Source VII.1).

The existing drainage system at DeLaveaga Golf Course consists of a series of subsurface pipes and catch basins. The collected stormwater is piped to the perimeter of the course and is discharged into existing natural drainages via catch basins. Uncollected stormwater runoff is discharged via sheet flow.

According to the Golf Course Master Plan, there are a few locations where facilities are lacking, and inlets should be installed, such as the right side of Hole 9, where runoff is eroding the perimeter slopes. At the far south end of the driving range the catchment basins are ineffective; surface flows bypass them and sheet flow across the back of the range, which is

being undercut outside the back area. The end of the driving range needs to be regarded and concrete swales are proposed to improve drainage.

The Master Plan recommends drainage and irrigation upgrades that are intended to help improve drainage conditions, specifically storm runoff, and to optimize irrigation efficiency. Generally, subsurface drainage will be installed at greens as shown on Figure 3 in section 2, which illustrates a typical green and provides a conceptual schematic and cross section that shows subsurface conditions and drainage improvements. Other drainage improvements include installation of French drains, catch basins and perimeter swales. Specific improvements outlined in the Master Plan include:

- Add or upgrade intercept catch basins and down-slope drains, and install new catch basins and storm drains at critical locations, to include at Holes 16 and 17.
- Stabilize ravine slopes at existing drain structures, to include Holes 13 and 17.
- Install curbing on cart paths to collect or direct runoff to the drainage system.
- Install subsurface perforated drain lines at tees.

**IMPACT ANALYSIS:** The project will not result in new impervious surfaces that would result in increased runoff. The planned new clubhouse will essentially be a replacement of the existing structure and will be of similar size. The driving range will be replaced with artificial turf that will have subsurface drainage collection. This may result in a minor increase in runoff to the adjacent drainage where existing catch basins and discharge pipes exist. There is also evidence of erosion at this location. The planned installation of swales and potential siltation basins, if properly designed, will provide better collection and controlled discharge of runoff to prevent further accelerated erosion from drainage.

The fairways will be recoutoured to improve drainage conditions on the golf course, but existing drainage patterns will not be altered. The planned sand capping of fairways (in conjunction with french drains) provides better water retention and percolation than currently exists. In addition to proposed installation of several new catch basins, repair of existing catch basins is envisioned at several locations (Holes 3 and 5).

**RECOMMENDATION:** Design planned drainage improvement at the driving range to prevent increased flows from entering the storm drain system that could contribute to increased erosion, such as through use of grassy swales and energy dissipators at the discharge point.

## 9. LAND USE AND PLANNING

The proposed Golf Course Master Plan is consistent with the City of Santa Cruz General Plan/Local Coastal Program designations and policies. The proposed use and management guidelines are consistent with the City's designation of the site as a Parkland (City of Santa Cruz General Plan Map L-6).

## 10. MINERAL RESOURCES

The proposed project is located in a developed urban area. The site is not designated for mineral extraction in the City of Santa Cruz General Plan and is not located within, adjacent to or near existing mining operations or known mineral resources.

## 11. NOISE

**(a-d) Exposure to Noise.** The proposed project will not result in a new source of permanent increases in ambient noise levels. Project construction activities will result in short-term and temporary noise increases associated with grading and construction. However, the golf course is situated in a contained and screened area that is separated from nearby residences by extensive woodland tree cover. The closest residential area is located to the south of the golf course in the Prospect Heights neighborhood. This area is nearly 400 feet from the two closest points on the golf course where grading and construction activities would occur – Holes 8 and 17. Temporary noise increases due to future grading is not considered significant due to the temporary and short-term nature of the work and the distance from residences.

**(e-f) Airport Noise.** See subsection 7 e-f above.

## 12. POPULATION AND HOUSING

The project consists of adoption and implementation of a Golf Course Master Plan, which will not result in new residential development or population growth.

## 13. PUBLIC SERVICES

The project consists of adoption and implementation of a Golf Course Master Plan, which primarily maintains facilities and recreational uses at existing levels. The project will not result in new uses, however, the improvements to the course and clubhouse facilities could result in an increase in the number of annual rounds. The Master Plan estimates that the number of annual rounds could increase from 65,000 to 80,000. The proposed clubhouse would provide expanded banquet space. This incremental increased use is not expected to have any significant impacts upon City police and fire protection services given the recreational nature of the use. The project will not result in new residential development or impacts to schools.

## 14. RECREATION

Adoption and implementation of the proposed Golf Course Master Plan would not result in new residential development or population growth that would increase recreational demands. The project consists of improvements to an existing recreational facility, which will improve playing conditions during rainy periods and upgrade other facilities. There will be a short-term,

temporary disruption to recreational use of the golf course during the time the improvements are implemented as the golf course will need to be closed. It is anticipated that the regrading and course improvements will take approximately 4-6 months to complete, and likely would begin in the fall to avoid peak golf course use. This is not considered significant due to the short-term duration during a low use season.

## 15. TRANSPORTATION/TRAFFIC

**(a-b, d-e) Traffic and Access.** Access to DeLaveaga Golf Course is provided via North Branciforte Avenue to DeLaveaga Park Road and Upper Park Road. North Branciforte Avenue is designated as a collector street in the City's General Plan (Map C-12).

**IMPACT ANALYSIS:** The project will not result in new uses that would result in increases in daily trips to the golf course. However, the improvements to the course and improved clubhouse facilities could result in the number of annual rounds. The Master Plan estimates that the number of annual rounds could increase from 65,000 to 80,000. The proposed clubhouse would provide expanded banquet space, which likely would be utilized on weekends or during off-peak traffic hours. The potential for increased rounds could result in an incremental increase in daily traffic. However, spread out over the year and throughout the day, it is not expected that there would be significant traffic increases during peak traffic hours.

The project will result in importation of approximately 30,000 cubic yards of sand for the fairway regrading and drainage improvements, resulting in temporary truck traffic. Truck capacities are typically 10-20 cubic yards per truck. At 2 trips per load (one inbound and one outbound), truck trips could result in a total of 60-120 trips over an approximate 2-month construction period when grading activities are implemented. This is a short-term impact that would not significantly impact street capacities or traffic in the vicinity of the golf course.

**(c) Air Traffic.** The proposed project will have no effect on air traffic patterns (see subsection 7 e-f).

**(f-g) Parking and Alternative Transportation Systems.** At present, there are 212 parking spaces at the golf course. The project will not result in new uses that would require additional parking.

## 16. UTILITIES AND SERVICE SYSTEMS

**(b) Sewer and Water Service.** City water and sewer services are provided to the site. In 1990, the golf course irrigation system was upgraded to a computer-controlled system with approximately 1,300 sprinklers. A site weather station was also installed to advance weather data (evapotranspiration rates) to the maintenance personnel. A new pump station producing 1,100 gallons per minute (gpm) was installed at the lake on Hole 18, which is supplied with treated City water.

Current and future water demand within the City's water service area exceeds the safe yield of the supply system during drought conditions. (Studies conducted by the City indicate that existing water supplies / production would fall short of existing and projected demands during critical and/or long-term droughts. The production rates vary from between approximately 3,600 MG/YR to 3,900 MG/YR, while demand currently is approximately 4,600 MG/YR and is projected to increase to approximately 5,200 MG/YR in the year 2020 Source V.4).

The City currently implements demand reduction and rationing measures during droughts and has begun implementation of other water conservation programs, such as retrofit programs. The City is in the process of conducting an integrated water planning process to identify one or more supplemental sources of water supply. At this time, the City is focusing on desalination options.

The project consists of adoption and implementation of a Golf Course Master Plan, which primarily maintains facilities and recreational uses at existing levels. The project will not result in new uses, however, the improvements to the course and improved clubhouse facilities could result in an increase in the number of annual rounds. The Master Plan estimates that the number of annual rounds could increase from 65,000 to 80,000. The proposed clubhouse would provide expanded banquet space, although existing restaurant capacity will not be increased.

**IMPACT ANALYSIS:** The project could result in an incremental increase in water demand and wastewater flows. This would be primarily related to installation of permanent restrooms on the golf course, and increased banquet use at the proposed new clubhouse. The daily increase is not expected to be significant given the fact that increased use would be spread out over the year, and banquets would be occasional events. Water demand from increased use would be offset by reduced irrigation as the driving range (approximately 3 acres) is planned to be resurfaced with artificial turf.

Increased rounds and banquet use could result in increased water demand of less than one acre-foot per year. This would be completely offset by removal of the driving range from irrigation, assuming a conservation irrigation estimate of 1 acre-foot per acre. With installation of the artificial turf at the driving range, golf course water demand would be reduced even with the potential increase in annual rounds and increased banquet use.

Assuming an increase in daily rounds of 50 and a 150-person banquet, the project could result in increased peak water wastewater flows of approximately 4,000 gallons per day. The City's wastewater treatment plant has an average dry weather flow capacity of 17 million gallons per day. The plant operates at approximately 62% of capacity, and thus has adequate capacity to serve the project. The project includes construction of two restrooms on the golf course that will be connected to existing sewer lines.

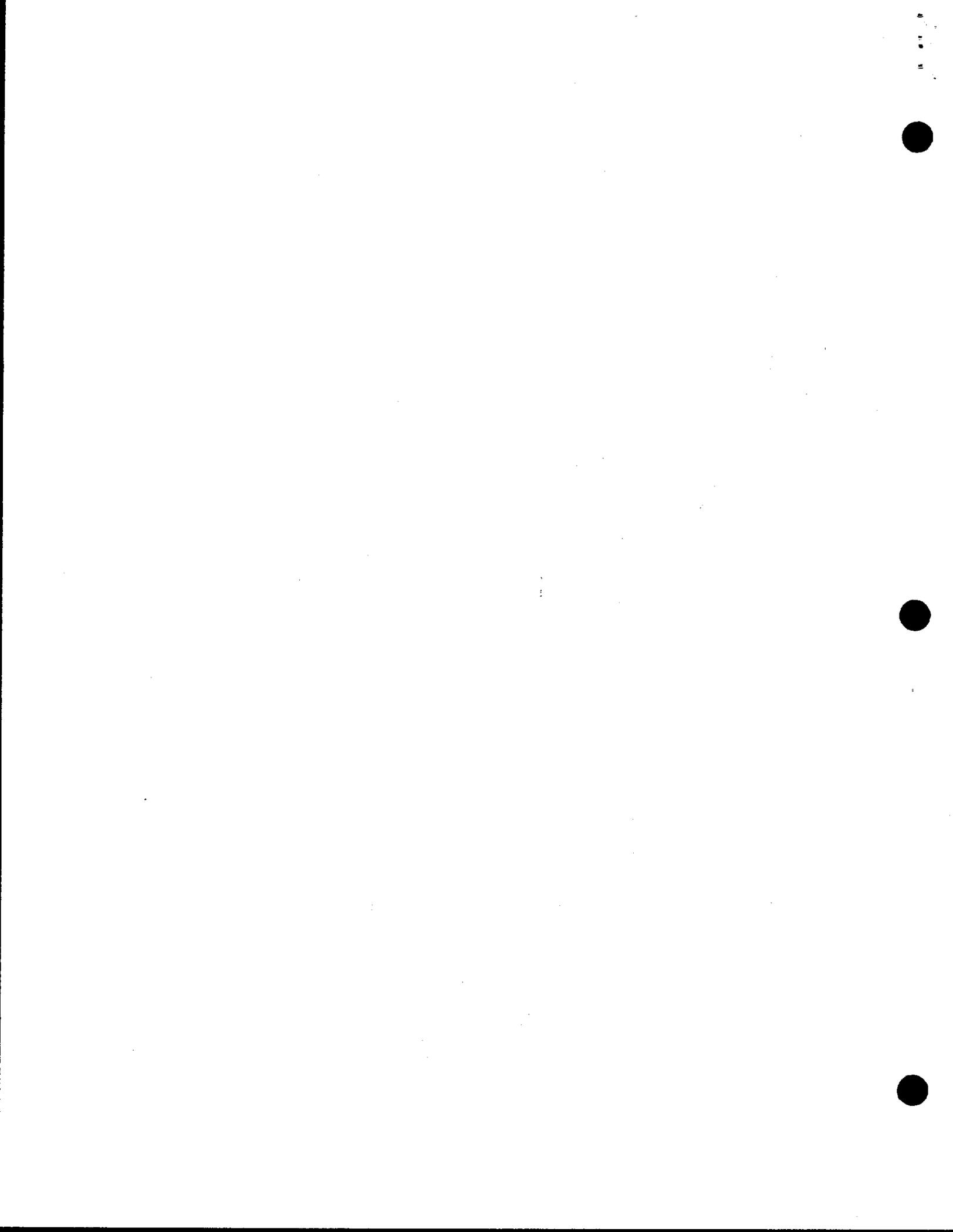
## 17. MANDATORY FINDINGS OF SIGNIFICANCE

**(a) Environmental Degradation and Biological and Cultural Resource Impacts.** The project could result in potential indirect significant biological impacts, that can be mitigated to a

less-than-significant level with implementation of mitigation measures recommended in this Initial Study. There will be no impacts to cultural resources.

**(b) Cumulative Impacts.** There are no known significant cumulative impacts to which the golf course project would contribute.

**(c) Adverse Environmental Effects.** As evaluated in this Initial Study, the proposed project would either have no impact or less-than-significant impacts on human beings, either directly or indirectly.



## SECTION VI. MITIGATION MONITORING AND BEST MANAGEMENT PRACTICES

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Under State law, a mitigation monitoring program is required for all mitigation measures identified for significant impacts. This Initial Study identified potential significant impacts related to biologic resources and water quality as a result of future implementation of recommended site-specific repairs. These mitigation measures are identified below. The following monitoring actions will be required for each mitigation measure identified below. In addition, Table 2 provides a listing of "Best Management Practices" (BMPs) that include the mitigation measures and other measures to avoid or minimize impacts that may result during future construction of improvement projects identified in the Master Plan. Best management practices (BMPs) are methods, measures, or practices that avoid, reduce or minimize a project's effects on various resources. BMPs include, but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during, and after activities to reduce or eliminate environmental impacts.

***MONITORING:** The City of Santa Cruz is responsible for including the mitigation measures and other BMP recommendations into project plans and construction specifications. Staff of the Parks and Recreation Department are responsible for conducting site inspections during grading to ensure that all erosion control measures are being adequately implemented.*

**MITIGATION MEASURE #1:** Implement "Best Management Practices" (BMPs) (see section 5.0 of this Initial Study for further discussions of BMPs) where grading will occur to reduce generation of dust and potential PM<sub>10</sub> emissions. Such practices would include, but not be limited to, the following:

- Water all active construction areas daily.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

**MITIGATION MEASURE 2:** Schedule construction activities outside of the nesting bird period (1 March – 31 July). If construction, including tree removal, is scheduled to begin between 1 March and 31 July, a pre-construction nesting survey should be conducted by a qualified wildlife biologist to determine if nesting birds are on or in the immediate vicinity of the project site. If active nests of protected species are found, delay construction until 1 August or after the wildlife biologist has determined that nesting activities have ceased. If construction activities are scheduled to begin outside of the nesting period, no further surveys are recommended.

**MITIGATION MEASURE 3:** Implement erosion control measures during and after construction to prevent inadvertent erosion and offsite transport of sediments into Arana Gulch, including, but not limited to:

- Install well-anchored silt fences and/or straw bales at the top of drainages adjacent to the following Holes/Fairways: 1, 3, 5, 8, 9, 10, 13, 17; adjacent to the retaining wall

construction zone; the driving range; and the onsite pond in order to prevent any physical movement or placement of materials or equipment outside the construction area into drainages and waterways.

- Limit ground disturbance and vegetation removal during construction to the minimum necessary to complete work on a given hole/fairway.
- Complete work prior to the onset of the rainy season (generally November 1), if possible, and avoid grading during the rainy season (generally between November 1 and April 1).
- If excavation activities extend beyond November 1, require implementation of all measures to prevent silt laden water from entering adjacent drainages, the onsite pond and Arana Gulch. Require use of sediment/detention basins or similar protection to temporarily contain construction runoff and to prevent sediment-laden runoff from entering drainages. Install filter fabric at drain inlets.
- Protect any disturbed areas during the rainy season with appropriate erosion control measures. Prior to November 1, disturbed soils at each site should undergo erosion control treatment consisting of temporary seeding, straw mulch or other measures pursuant to an approved erosion control plan.
- Immediately revegetate disturbed areas with appropriate plant species.

**MITIGATION MEASURES 4:** Require all excavated soils, fill and construction materials be stored and contained in a designated area that is located away from drainages and catch basin inlets to prevent inadvertent transport of materials into adjacent drainages and Arana Gulch. Prohibit fueling, cleaning or maintenance of equipment except in designated areas located as far from the creek as possible. As a precaution, require contractor to maintain adequate materials onsite for containment and clean-up of any spills.

**RECOMMENDATION:** Implement measures to protect existing oak trees located adjacent to construction zones in order to minimize damage to the trees and their root zones during construction, including, but not limited to the following:

- Require that the City Urban Forester be consulted via a pre-construction inspection to insure that all tree protection recommendations are in place.
- Install construction fencing around the oak trees for protection during construction to prevent inadvertent grading or disturbance/compaction by construction equipment, especially at the following sites: 1, 2, 3, and 10. Route underground utilities outside the tree protection zone.
- Contact an arborist if tree roots over one inch are encountered during grading and construction.

**RECOMMENDATION:** Select landscaping species that are not considered invasive exotics. Plant species selection should be developed in consultation with a qualified specialist.

**RECOMMENDATION:** Design planned drainage improvement at the driving range to prevent increased flows from entering the storm drain system that could contribute to increased erosion, such as use of grassy swales, energy dissipators at the discharge point.

<b>TABLE 2</b>		
<b>RECOMMENDED BEST MANAGEMENT PRACTICES FOR FUTURE GRADING AND CONSTRUCTION ACTIVITIES</b>		
<b>BMP</b>	<b>Title</b>	<b>Description</b>
<b>1. Water Quality—Implement measures to protect water quality and prevent sedimentation.</b>		
1	Erosion and Sediment Control Measures	<p>Implement erosion control measures during and after construction to prevent inadvertent erosion and offsite transport of sediments into Arana Gulch, including, but not limited to:</p> <ul style="list-style-type: none"> <li>▪ Install well-anchored silt fences and/or straw bales at the top of drainages adjacent to the following Holes/Fairways: 1, 3, 5, 8, 9, 10, 13, 17; adjacent to the retaining wall construction zone; the driving range; and the onsite pond in order to prevent any physical movement or placement of materials or equipment outside the construction area into drainages and waterways.</li> <li>▪ Limit ground disturbance and vegetation removal during construction to the minimum necessary to complete work on a given hole/fairway.</li> <li>▪ Complete work prior to the onset of the rainy season (generally November 1), if possible, and avoid grading during the rainy season (generally between November 1 and April 1).</li> <li>▪ If excavation activities extend beyond November 1, require implementation of all measures to prevent silt laden water from entering adjacent drainages, the onsite pond and Arana Gulch. Require use of sediment/detention basins or similar protection to temporarily contain construction runoff and prevent from entering drainages. Install filter fabric at drain inlets.</li> <li>▪ Protect any disturbed areas during the rainy season with appropriate erosion control measures. Prior to November 1, disturbed soils at each site should undergo erosion control treatment consisting of temporary seeding, straw mulch or other measures pursuant to an approved erosion control plan.</li> <li>▪ Immediately revegetate disturbed areas with appropriate native plant species that are compatible with surrounding vegetation.</li> </ul>
2	Soil Stockpiles	Require all excavated soils, fill and construction materials be stored and contained in a designated area that is located away from drainages and catch basin inlets to prevent inadvertent transport of materials into adjacent drainages and Arana Gulch.
3	Equipment Fueling	Prohibit fueling, cleaning or maintenance of equipment except in designated areas located as far from the creek as possible. As a precaution, require contractor to maintain adequate materials onsite for containment and clean-up of any spills.
4	Drainage System Design	Design planned drainage improvement at the driving range to prevent increased flows from entering the storm drain system that could contribute to increased erosion, such as use of grassy swales, energy dissipators at the discharge point.
<b>2. Tree and Habitat Protection.</b>		
5	Tree Protection	<p>Implement measures to protect existing oak trees located adjacent to construction zones in order to minimize damage to the trees and their root zones during construction, including, but not limited to the following:</p> <ul style="list-style-type: none"> <li>▪ Require that the City Urban Forester be consulted via a pre-construction inspection to insure that all tree protection recommendations are in place.</li> <li>▪ Install construction fencing around the oak trees for protection during construction to prevent inadvertent grading or disturbance/compaction by construction equipment, especially at the following sites: Fairways 1, 2, 3, and 10. Route underground utilities outside the tree protection zone.</li> <li>▪ Contact an arborist if tree roots over one inch are encountered during grading and construction.</li> </ul>

<b>TABLE 2</b>		
<b>RECOMMENDED BEST MANAGEMENT PRACTICES FOR FUTURE GRADING AND CONSTRUCTION ACTIVITIES</b>		
<b>3. Wildlife and Fisheries -- Implement measures to minimize impacts to native species.</b>		
6	Minimize Impacts to Breeding Species	Schedule construction activities outside of the nesting bird period (1 March – 31 July). If construction, including tree removal, is scheduled to begin between 1 March and 31 July, a pre-construction nesting survey should be conducted by a qualified wildlife biologist to determine if nesting birds are on or in the immediate vicinity of the project site. If active nests of protected species are found, delay construction until 1 August or after the wildlife biologist has determined that nesting activities have ceased. If construction activities are scheduled to begin outside of the nesting period, no further surveys are recommended.
7	Avoid Invasive Species	Select landscaping species that are not considered invasive exotics. Plant species selection should be developed in consultation with a qualified specialist.
<b>4. Land Use and Public Safety -- Minimize disturbance to the public and ensure public safety.</b>		
8	Minimize Disturbances to Neighborhoods	Implement maintenance practices that minimize disturbances to neighborhoods surrounding work sites. a) In general, work shall be conducted during normal working hours. Extending weekday hours and working weekends may be necessary to complete some projects. b) Internal combustion engines shall be equipped with adequate mufflers. c) Excessive idling of vehicles will be prohibited. d) Levee traffic shall be limited to a speed of 15 miles per hour. e) Access roads shall be watered as needed to control dust. f) Dry sediment shall be wetted down or covered as needed to control dust during transport.
<b>5. Air Quality-- Implement dust control measures at work sites to protect air quality and minimize effects on adjacent neighborhoods.</b>		
9	Basic Dust Control Measures	Implement "Best Management Practices" (BMPs) where grading will occur to reduce generation of dust and potential PM <sub>10</sub> emissions. Such practices would include, but not be limited to, the following: <ul style="list-style-type: none"> <li>▪ Water all active construction areas daily.</li> <li>▪ Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.</li> <li>▪ Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).</li> <li>▪ Limit traffic speeds on unpaved roads to 15 mph.</li> <li>▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>▪ Replant vegetation in disturbed areas as quickly as possible.</li> </ul>

## SECTION VII. REFERENCES

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