

APPROVED BY THE CITY COUNCIL

MAY 2 6 1987

CFFICE OF THE CITY CLERK

DEPARTMENT OF PARKS AND COMMUNITY SERVICES

ROBERT P. THOMAS DIRECTOR

G. ERLING LINGGI ASSISTANT DIRECTOR CITY OF SACRAMENTO

May 20, 1987



1231 I STREET SUITE 400 SACRAMENTO, CA 95814-2977

916-449-5200

DIVISIONS:

CROCKER ART MUSEUM GOLF METROPOLITAN ARTS MUSEUM & HISTORY PARKS RECREATION ZOO

City Council Sacramento, California

Honorable Members in Session:

SUBJECT: 1. Final Environmental Impact Report on Carl F. Hansen Regional Park and Golf Course

2. Carl F. Hansen Regional Park and Golf Course Implementation Plan

SUMMARY

This report provides information on the proposed development of Carl F. Hansen Regional Park and Golf Course. The final Environmental Impact Report on the proposed project and an Implementation Program are hereby transmitted to the City Council.

TRANSPORTATION AND COMMUNITY DEVELOPMENT COMMITTEE ACTION

The attached report will be reviewed by the Transportation and Community Development Committee at their meeting of May 21, 1987. Results of that meeting will be presented orally to the City Council.

RECOMMENDATION

It is recommended that City Council, by resolution:

- 1. Determine that the Final EIR is adequate;
- 2. Certify that the EIR has been prepared in compliance with State CEQA guidelines and that the City Council has considered the information contained in the EIR;
- 3. Determine that the project will not have a significant effect on the environment, because all potential significant impacts have been mitigated to a less than significant level by including mitigation measures in the Final EIR in the project's master plan design and operation; and

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City Council May 20, 1987 Page Two

> 4. Approve this report and direct staff to report back to City Council for approval of a financing plan for this capital project.

> > Respectfully submitted,

ROBERT P. THOMAS, Director

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Parks and Community Services

Recommendation Approved:

WALTER' J. SLIPE City Manager .

RPT: Ja

May 26, 1987 District No. 2

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RESOLUTION NO. 87-414

ADOPTED BY THE SACRAMENTO CITY COUNCIL ON DATE OF APPROVED

MAY 2 6 1987

RESOLUTION ADOPTING THE FINAL ENVIRONEMENTAL IMPACT REPORT OFFICE OF THE FOR THE CARL F. HANSEN REGIONAL PARK AND GOLF COURSE MASTER PLAN IMPLEMENTATION PROGRAM AND CARL F. HANSEN REGIONAL PARK AND GOLF COURSE EIR AND MASTER PLAN

WHEREAS, the City Council has received and reviewed the Transportation and Community Development Committee's recommendation on environmental effects of the Final BIR and Master Plan for the Carl F. Hansen Regional Park and Golf Course;

NOW, THEREFORE, BE IT RESOLVED by the City Council that the Council hereby determines and certifies:

- 1. That the Final Environmental Impact Report is adequate;
- 2. That the EIR has been prepared in compliance with State CEQA guidelines and that the City Council has considered the information contained in the EIR;
- 3. That the project will not have a significant effect of the environement, because all potential significant impacts have been mitigated to less than significant levels by including mitigation measures in the Final EIR and in the projects master plan design and operation;
- 4. That the resolution for the Final BIR on the Carl F. Hansen Regional Park and Golf Course Master Plan be adopted;
- 5. That this report be approved and direct staff to report back to City Council for approval of a financing plan for this capital project.

MAYOR

ATTEST:

CITY CLERK



DEPARTMENT OF PARKS AND COMMUNITY SERVICES

ROBERT P. THOMAS DIRECTOR

G. ERLING LINGGI ASSISTANT DIRECTOR

CITY OF SACRAMENTO

April 29, 1987

1231 I STREET SUITE 400 SACRAMENTO, CA 95814-2977

916-449-5200

DIVISIONS:

CROCKER ART MUSEUM GOLF METROPOLITAN ARTS MUSEUM & HISTORY PARKS RECREATION ZOO

Transportation and Community Development Committee Sacramento, California

Honorable Members in Session:

SUBJECT: 1. Final Environmental Impact Report on Carl F. Hansen Regional Park and Golf Course

2. Carl F. Hansen Regional Park and Golf Course Implementation Plan

SUMMARY

This report provides information on the proposed development of Carl F. Hansen Regional Park and Golf Course. The final Environmental Impact Report on the proposed project and an Implementation Program are hereby transmitted to the City Council's Transportation and Community Development Committee.

BACKGROUND INFORMATION

Development History

As a result of the Hansen family's generosity, Carl F. Hansen Park, which now comprises 268 acres, is the second largest park site in the City system. Carl F. Hansen purchased the Crystal Cream and Butter Company in Sacramento in 1921. Under his direction, the firm expanded into all phases of milk processing, and became one of the largest processing plants in California.

Hansen retired in 1954 and died on September 6, 1957, leaving the majority of his estate to his three sons. On December 19, 1963, the City Council accepted the Hansen property from the senior Hansen's sons as a gift to the City of Sacramento. It was specified by the Hansen brothers, at the time of presentation, that this property was to be given to the City of Sacramento in parcels of approximately twenty acres each over a ten year period. The original gift consisted of less than two hundred acres. Transportation and Community Development Committee April 29, 1987 Page two

In March 1984, Kenneth Hansen and his brothers Carl and Vernon Hansen, together with their respective wives, collectively granted to the City of Sacramento an additional 60 acres, and on May 1, 1985, the City Council accepted the donation. The Deed of Gift stipulates that the donated land be used for public recreational and/or cultural purposes, and requests the site be known as Carl F. Hansen Park.

The Carl F. Hansen Park site is located in an undeveloped flood plain at the northwest section of Sacramento, and the city limits adjoin the north side of the project site. Interstate 80 is approximately one mile to the south of the site and Interstate 5 is approximately three miles to the west. Dry Creek meanders across the subject property generally from east to west. Linda Creek, a minor drainage channel, crosses the southern portion of the site. (Exhibit A).

On December 28, 1983, City Council approved development of a Financial Feasibility Analysis Report, Conceptual Master Plan and Environmental Impact Report for the Carl F. Hansen Park. GOLFPLAN, Ronald Fream Design Group, Ltd. was selected (C.A. #83112) to prepare the reports and master plan at a cost of \$64,200. The group is recognized worldwide for golf course architecture and golf development planning.

The need for additional golf course development has substantial foundation as indicated in the Bing Maloney Expansion Project and South City Golf Development Feasibility Study. Both reports indicate that Sacramento has a 13.5 deficit in 18-hole golf courses. In the Carl F. Hansen Regional Park Financial Feasibility Study for the proposed 18-hole golf course, dated March 19, 1985, the Ronald Fream Design Group indicates the proposed golf course has the potential to become one of California's foremost public golfing facilities.

Conceptual Master Plan and Environmental Impact Report

On September 29, 1983 the City Department of Parks and Community Services conducted the first of five public meeting on the development of Carl F. Hansen Park Master Plan. Over 50 citizens, representing a variety of interest groups, including environmentalists, adjacent property owners and various other interested groups and individuals participated in these public meetings.

The conceptual master plan was presented in May 1984. This conceptual plan included a variety of recreational facilities, with the majority of the proposed development comprising of an 18-hole championship golf course. This conceptual plan included a course to include a two lane roadway built to City standards extending north from Main Avenue at Kelton Way into the eastern portion of the site to the proposed clubhouse. In addition to the proposed golf course improvements, the conceptual plan includes parking lots, automobile and pedestrian bridges, a community-type clubhouse, golf/tennis pro shops, pistol/trap shoot facility, softball and soccer fields, picnic areas, children's play areas, fishing areas, and preserved nature areas.

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Transportation and Community Development Committee April 29, 1987 Page three

Larry Seeman Associates, environmental consultants, prepared an environmental assessment of the proposed master plan. In March 1985 the Draft EIR was distributed to libraries, public agencies, community groups, and interested citizens for a 45-day public review period. Comments were received on the Draft EIR from, State and Federal agencies as well as private individuals and organizations (see Exhibit B).

In accordance with California Environmental Quality Act (CEQA) guidelines, a public hearing, to address comments regarding the Draft EIR, was held on May 29, 1985 at Robla School. Discussion during this hearing centered on facility use. Those present at the public hearing represented various interests private citizens, environmental groups, golfers and government including: In response to comments for another flora inventory, the Department agencies. of Parks and Community Services, in May 1985, contracted with Jones & Stokes Associates, Inc. for \$3,000, to perform a botanical survey of the Hansen Ranch site. During the survey, special consideration was given to vernal pools located on the site for observation of designated rare, and endangered vernal pool plant species. The survey consisted of a three phase investigation and a final report was concluded on June 24, 1986. None of the plants of special concern were observed in Hansen Ranch vernal pools during the survey. Exhibit C contains the vernal pool survey report and related correspondence.

In December 1985 the Final EIR was distributed for a fourteen-day review period to persons who commented on the Draft EIR, as well as libraries, public agencies and community groups. The Final EIR consists of an addendum containing comments on the Draft EIR and response by the City to those comments. In addition, copies could be obtained for review from the Department of Parks and Community Services.

During the preliminary planning and throughout the environmental assessment of the proposed Carl F. Hansen Park and Golf Course, staff has met with Sacramento Audubon Society, California Native Plant Society, Arcade Creek Restoration Committee, and Environmental Council of Sacramento, Inc. The above named groups expressed concerns relating to the preservation of vegetation and wildlife at the site.

Public Participation

The Master Plan has been revised on four separate occasions to accommodate the concerns of the environmental groups as expressed during the EIR process.

Transportation and Community Development Committee April 29, 1987 Page Four

Revisions to the Master Plan are as follows:

Preliminary Conceptual January 1984

Revision #1 - July 1984

- A) Relocate pistol range to trap shoot area.
- B) Add parking lot and tennis courts.
- C) Redesign entrance road to run parallel to eastern Boundary of site.
- D) Minor alteration to golf hole layout.
- E) Delete neighborhood park from northeast section of site.

Revision #2 - November 1984

A) Define natural areas.

Revision #3 - February 1985

- A) Delete trap and skeet, pistol range at the request of Audobon Society.
- B) Delete tennis courts.
- C) Reduce capacity of parking area.

Revision #4 - December 1986

- A) Identify natural area management zones.
- B) Relocate practice range.
- C) Relocate maintenance area to provide security
- from possible toxic material runoff.
- D) Relocate multi-purpose fields.

*Revision number four is recommended as the final Master Plan that entails a design which will provide three additional natural area management zones and expanded preserved wetlands.

In a meeting on December 4, 1986, City staff and representatives of the Sacramento Audubon Society, California Native Plant Society, Arcade Creek Restoration Committee, and Environmental Council of Sacramento, Inc. reviewed revision #4. 'At that time, staff received support for this revision as the master plan for Carl F. Hansen Regional Park and Golf Course, (see Exhibit E). Mitigation measures necessary in order to reduce impacts to less than significant levels are attached as Exhibit F.

During the December 4th meeting environmental representatives and City staff agreed upon the following significant points:

- 1. The Master Plan will undoubtedly require some changes when final engineering and hydraulic concerns are mitigated in order to acquire the necessary permits for construction. ECOS, Inc. will have the opportunity to review any significant changes.
- 2. The areas designated as "natural" will not be reduced in size and may even increase in size.
- 3. Golf hole #5 may be changed in the final plan so as to curtail the intrusion of golf balls in air space over the wetlands area.
- 4. The final plan may in fact provide for additional wetlands areas.
- 5. The maintenace area will be constructed in such a manner that runoff water does not enter the golf course area.
- 6. ECOS will be given the opportunity to provide suggestions for the type of native grasses, plants and trees for landscaping the site.
- 7. Native perennial grasses will be used to provide buffer or protective zones between the maintained turf area and the natural areas.
- City will work with ECOS on a management plan for the natural areas.
- 9. ECOS members will be given an opportunity to assist in the reintroduction of native plant life to the area.

Implementation Plan

Following preparation of plans and specifications, the City may be required by the U.S. Army Corp. of Engineers to apply for a permit under Section 404 of the Federal Water Pollution Control Act. The Golf Division proposes to retain an engineering consultant to assist in the preliminary requirements of such a permit. Transportation and Community Development Committee April 29, 1987 Page six

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Pending the City Council ratification of the Carl F. Hansen Regional Park and Golf Course Final EIR and approval of the revised Mater Plan, it is recommended that staff be directed to implement the following:

	<u>To Be Implemented</u>	<u>Time Line</u>
1.	Staff to provide options for financing the development of Hansen Ranch Regional Park and Golf Course.	September 1987
2.	Issue RFP for engineering necessary for permits and select consultant to provide the engineering.	October-December 1987
3.	File for all necessary permits.	January-June 1988
4.	Issue RFP for construction bids (assuming permits are granted).	July-December 1988
5.	Begin construction.	May 1989

FINANCIAL DATA

Total appropriations for the Carl F. Hansen Regional Park Master Plan Development (CIP #0A11) and Hansen Golf Course Development (CIP #0A16) provides \$632,540 for the development of Carl F. Hansen Regional Park and Golf Course. Of this amount, \$67,660 has been spent for this two-year EIR and Master Plan process. Total cost of development of Carl F. Hansen Regional Park and Golf Course is estimated at \$5,397,000. It should be noted however, that preliminary estimates are based on costs relating to March 1, 1985 which are documented in the Financial Feasibility Study. Adjustments may be necessary for actual development.

No City funds are requested at this time.

EXHIBITS

Attached for Council's consideration is the following information:

Exhibit A - Site Location Exhibit B - EIR Comments. Exhibit C - Vernal Pool Survey Exhibit D - Revised Master Plan Exhibit E - ECOS Letter Exhibit F - Mitigation Measures Necessary Exhibit G - Draft and Final EIR Transportation and Community Development Committee April 29, 1987 Page seven

RECOMMENDATIONS

It is recommended that the Transportation and Community Development Committee approve this report and forward it to the City Council for action. Further, it is recommended that the City Council, by resolution:

- 1. Determine that the Final EIR is adequate;
- 2. Certify that the EIR has been prepared in compliance with State CEQA guidelines and that the City Council has considered the information contained in the EIR;
- 3. Determine that the project will not have a significant effect on the environment, because all potential significant impacts have been mitigated to a less than significant level by including mitigation measures in the Final EIR in the projects master plan design and operation;
- 4. Adopt the resolution for the Final EIR on the Carl F. Hansen Regional Park and Golf Course Master Plan;
- 5. Approve this report and direct staff to report back to City Council for approval of a financing plan for this capital project.

Respectfully submitted,

ROBERT P. THOMAS, Director Parks and Community Services

Recommendation Approved:

DAVID R. MARTINEZ Deputy City Manager

> May 21, 1987 District 2



EXHIBIT A

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CARL F. HANSEN REGIONAL PARK AND GOLF COURSE SITE LOCATION



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EXHIBIT B

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CARL F. HANSEN REGIONAL PARK AND GOLF COURSE EIR COMMENTS

CARL F. HANSEN REGIONAL PARK AND GOLF COURSE DRAFT EIR COMMENTS REGISTERED

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COMMENTOR	DATE				
State and Federal Agencies					
California Department of Fish and Game	April 30, 1985				
Public Utilities Commission	April 24, 1985				
The Reclamation Board	April 15, 1985				
Local Agencies					
City of Sacramento, Planning Commission	May 3, 1985				
City of Sacramento, Department of Public Works	April 10, 1985				
Private Individuals and Organizations					
The Arcade Creek Restoration Committee	June 3, 1985				
The California Native Plant Society	May 22, 1985				
The Environmental Council of Sacramento, Inc.	June 2, 1985				
The Sacramento Audubon Society	May 31, 1985				

EXHIBIT C

CARL F. HANSEN REGIONAL PARK AND GOLF COURSE VERNAL POOL SURVEY

JONES & STOKES ASSOCIATES, INC. / 2321 P STREET / SACRAMENTO, CA. 95816

916/444-5638

July 2, 1985

Mr. Dale Achondo Superintendent of Golf Department of Parks and Community Services City of Sacramento 1231 I Street, Suite 400 Sacramento, California 95814

Subject: Vernal Pools at Hansen Ranch Regional Park Site

Dear Mr. Achondo:

Jones & Stokes Associates, Inc. conducted a reconnaissance level survey of the proposed Hansen Ranch Regional Park site to describe the location and resource values of the vernal pools on the site. The site was surveyed in late May 1985. No federal or state designated rare, threatened, or endangered plants were found on the regional park site. The vernal pool species likely to occur in Sacramento County are listed in Exhibit 1. None of the listed species were found on the site. Vernal pool species differ in their emergence and blooming period and can occur from early spring to summer. This survey (conducted in May) could have missed some of the earliest and latest emerging or blooming species, but special care was taken to look for the species listed in Exhibit 1 in any form or condition. The botanists that conducted the site survey are local experts specializing in plant and seed identification.

The regional park site has received heavy livestock use for many years and the effects of grazing and trampling are very evident in the degraded condition of the grasslands and vernal pools. There is evidence of land management activities that have affected the presence and distribution of native plant species. The survey identified a total of 151 plant species on the site of which 87 were native species. The long-term heavy grazing and other agricultural operations have contributed to the significant number of introduced weedy species.

In spite of the human and domestic animal use of the site, the survey identified 51 vernal pool species locations (Exhibit 2) on the regional park site. Vernal pool species are found in two different habitats on the site: 1) "classic" vernal pools which are shallow closed basins underlain with impermeable clay layers that hold water in the spring and support concentric rings of different plant species as the waters evaporate; and 2) assemblages of vernal pool species found in deep depressions in natural ephemeral drainage channels. There were also areas of standing water or wet soil areas on the park site that support water-loving plants rather than vernal pool plants. The water-loving species are those typically found in permanent and seasonal marshes, drainage ditches, and permanent ponds. The difference between the vernal pool and standing water habitat is the duration of the standing water and the necessity for the summer dryness regime to continue vernal pool occurrence.

The most representative vernal pools are numbers 18, 19, 20, 21, 22, and 23 on the accompanying map. Pools 24, 25, and 36 have particularly rich vernal pool flora, but the water supply appears to be augmented by being in a natural drainage. Pool 39, the large pool near a corner of the site remains wet for too long for a number of the vernal pool species and supports a preponderance of Eleocharis (spike-rush).

The park site contains an extensive number of vernal pools and drainages that support vernal pool plant species. The heavy grazing and trampling has degraded the site, but enough plants survive to produce ample seed for many vernal pool plants and a good wildflower display in the spring. The quantity and quality of the vernal pools merit efforts aimed at making minor alternations in the park conceptual plan to accommodate the retention of some of the better quality pools.

If an attempt is made to keep the best quality vernal pools among the various features of the golf course and rest of the facility, several important points should be kept in mind. The pools must have a gradual drying out phase in the spring, summer dryness, and accumulating winter rains. Such a regime is <u>essential</u> to the continued existence of the vernal pools. The drainage basins that support the vernal pools cannot be used for water detention basins for the golf course. The pools need the winter flooding and the summer drying out. Planted turf should not be placed in the drainage catchment basins of the protected vernal pools. If the basins around vernal pools are retained, they will provide a buffer zone between the turf and the pools. Irrigation water should not be applied to the retained vernal pools or the buffer zone basins. The natural hydrologic cycle provides the appropriate moisture. Low barriers (e.g., logs at or near ground level) should be installed to keep golf carts and lawn mowers (but not people) away from the vernal pool areas.

Vernal pools are a unique habitat that occurs at only a few locations in the world. It would be desirable to retain a selection of the most representative pools in the final plan. Retaining some vernal pools and natural vegetation in the roughs will provide showy spring wildflowers. Protection of some of the vernal pools and natural vegetation in roughs will augment the other science and outdoor education/recreation aspects of the park.

Please call us if you have any questions. We have included for your files, handwritten field notes that include a species list of all 151 species found on the site and a characterization of each vernal pool by size and major species.

Sincerely,

Jolann Snenson

Jo Anne Sorenson

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Vernal pool taxa likely to occur in Sacramento County

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TAXON	FLOWERING TIME	FEDER	STATUS ¹ AL CALIFOR	nia cnps	DISTRIBUTION BY COUNTY
Euphorbia Hooveri (Hoover's spurge)	July	 c ²	E3	R-E ⁴	Butte, Stanislaus, Tehana, Tulare
<u>Graticla heterosepala</u> (Bogg's Lake hedgehyssop)	April-July	с	E	R-E	Fresno, Lake, Madera, Sacramento
Juncus leiospennus (Red Bluff rush)	April	с	-	R-E	Butta, Placer, Sierra, Tehama
Legenere linosa (Greene's legenere)	April-May	с	-	R-E	Lake, Napa, Placer, Sacramento, San Mateo, Solano, Sonora, Stanislaus
Neostapfia colusiana (Colusa grass)	May-July	ċ	-	R-E	Colusa, Marcad, Solano, Stanislaus
Orcuttia pilosa (Hairy Orcutt grass)	May-July	с	E	R-E	Madera, Merced, Stanislaus, Tehama
Orcuttia tenuis (Slender Orcutt grass)	May-July	с	E	R-E	Lake, Plumas, Sacramento, Shasta, Tehama
Orcuttia viscida (Sacramento sticky Orcutt grass)	June-July	с	E	R-E	Sacramento
<u>Tuctoria Greene</u> (Greene's Orcutt grass)	May-July	с	E	R−£	Butte, Fresno, Madera, Merced, San Joaquin, Stanislaus, Tehama

1. Status: Federal - Designation by U.S. Fish and Wildlife Service under the federal Endangered Species Act State - Designation by California Department of Fish and Game under the California Native Plant Protection Act

CNPS - Designation in the California Native Plant Society's <u>Inventory of Rare and Endangered</u> <u>Vascular Plants of California</u>

2. C: Candidate for Federal designation under the Endangered Species Act.

3. E: Designated "Endangered" under the California Native Plant Protection Act

4. R-E: Considered as "Rare and endangered" by the California Native Plant Society

Judy Call - 47 Mar - 4 percen

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22-14/2t	Partial List of Plants Hansen Ro	mch Regional Parl	Le May 22,23,26,
		·	198
Josenal 2d	Silybum Marianum	Compositae	Milk Thiot.
Calve	_Quércus Douglasii	Fagaceae_	Blue Oak_
Tit coburai	Hordeum Jepalnum	Grammene	Foxtal
inturational_	Sisymbrium officinale	<u>Cruciferal</u>	Hedge Mustan
Total cobused	Malva parviflora	Malvaceae_	Chasseweed
Laura Hi	Centaurea solstitualis	Composital	Star Third
anged	Lolivm_perenne	Gramineae	Perennial Rr
	Erodum moschatum	Geraniaceae	Filaree
- cohered	Avena fatua	Gramineae	Wild Oats
	Amsinckia intermedia	Boraginaceae	Fiddleneck
Jus-Ne_	Holocanpa virgata -	(omposital	Tarweed
Datiral.d	Raphanus Eatorus	Cruciferal	Wild Radio
<u></u>	Lippia nodifloravarirosea	Verbenaceae	Lippia
Los and	Rumer cropus	Polyconaceae	Curly Doct
	Hemizonia Etchii	(omposital	Sorkeweed
	Anthemis Cotula	Compositae	Doo Fenne
word	Polypagon maritmus	Gamineae	Beard Gra
). 	(voerne Ecodrostis	CHDERACEAL	Umbrelh Sed
The second	Menthe Pule-aum	labistal	Pennyroval
· · · · · · · · · · · · · · · · · · ·	Bradiaza elegans	Amaryllidaceae	Harriest Bredi
	Bromus moths	Gramineal	Soft cheas
Deterologica	Hypochoesis glabra	Comprestal	Cat's Ear
'en	Laura Fromontii	(mocsital	Tidy Tips
/). A	Passilvon distichum	Gramineal	Knot Grace
().	Foundium Vaseri una vallusele	Umbell, Eerae	Carde Thist
1 and	(multilus assensio	Convolvulaceae	Bindweed
	Xanthium string anim she could	Composital.	Cacklehur
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Introduced	Lolium multiflorum	Gramineal	Italan Ryegi
Dative	Navarretia levcocephala	Polemoniaceae	Navaneté
Introduced	Briza minor	Grammene	Quicking 600
John loved	Trifolium dubium	Leguminosae	<u> clover</u>
Nature	Lythrum Hyssopholia	Lythraceae	Locestrife
Detrue	Tritolium variegatum	Leguminosae	- Unite-tip
Deliversized	Cotula_coronopitalia	Compositae	Brass Butt
Tet con cont	Lactuca Serriola var, integr	rata Compositae	ParcklyLett
The Nuch	Lactura Serriola	Compositae	Archy Lett
-tionist	Poa annua	Gramineae	Annual Bluer
Introduced	Acris echoiodes	- Composital	Ox Tonque
Nuture_	Trifolium depauperature	Leguminosal	Bladder Clov
10, the	Euphonbia serpyillifolia	Euphorbiaceae	Spurge
لمدمنية ويتخط 	Phalaris caroliniana	Grammeal	Camary Grea
Er-roduced	Lows uliginosus	Leguoninosae	Broks Foot Tree
<u>), j, e</u>	Juncus butonius	Juncaceal	Toad Rich
Licture	Ranunculus alveolatus	Ranunculaceae	- Water Bitter
Delucities.	Ranunculus municatus_	Ranunculaceae	Prickleseed Bit
N-me.	Brodiaea coronanía	_ Amaryllidaceae_	Brodiala
<u></u>	Trifolium tordentation_	Leguminosal_	Tom cat Clou
Joi introd	Geranium dissectum	Geraniaceal_	<u>Cranesbill</u>
John er	Graphalium palistre	<u>Compositae</u>	Lowbond Cide
Trishurad	Graphalium litec-album	<u>Composital</u>	_ Everlasting Cide
1. marine	Quercus jolonenaro	Fagacene	Hord lober
<u>Alterne</u>	Pogogyne zizyphonoides_	habiatae	- Pogogyne
Dative_	Brodiaca hyacinthina	Amary Ilidaceae	_ White Brodian
-droiner d	Bromus dlandrus	Gramineal	Bipgut Brom
V-twe	Lupinus bicolor	Leguminosae	Miniature Lupin
	Erodium Botrys	Germiaceae	Fibree
Juitive	Brodiaea laxa	<u>AmanyIlidaceae</u>	Ithuciel's Spen
Native	Asclepias eriocarpa	Aschepiadaceae_	Milkweed
Tradical	Bronius rubens	Gramineae	- Foxtal Chess

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· Jak nic	Wyethia angustitola	Compacitae	Wyethia
Mative.	Basduvalia clesstogama	Dragraceae	Boisduva
Natric	Boisduvalia glabella un comp	odres Onagraeae	Boisdung
No-se	Hordeum_pusillum	Gamineal	Barley
Intad	Matricaria matricarioides_	Compositae	Pineapple
Ald saleed	Vicia dasycanpa	Leguminosal	Vetch
Netter -à	Carduus pycnocephalus	Compositae	Aumeless I
	Bromus moths	- Gramineal	- Set chas
<u>Licoucid</u>	-Pol-pog.on monspelienaus	Gramineal	Bandlor
Notive_	Alisma triviale	Alismatuceae	Water Plant
Notive_	Leansia oryzoides	Gramineal	Rice Cutyo
Ichicchurch	Plantago major	Plantagina ceal.	Common Hu
<u>x1.4.1000</u>	- gencus lobata	Fagaceae	Valley Oa
-(Helenium piberulum	Compositae	<u>Encopence</u>
لمنو معد فيهله	Forniculum Vulgare	Umbelliferae	Sweet Fer
Merric	Salix sp.	Salicaceae	Willow
Dettine	Salix Goodingii	Salicaceae	Black Wills
Notrie_	ypha_angustrtolia	Typhaceae	Naul Rod_
A citive	Hordevon depression	Gramineal	Barley_
Treducia	Medicago hispida var confinis	Leguminosal	Bur Clove
<u>laharine</u>	Kanunculus sceleratus	<u>Ranunculaceae</u>	<u>Bittercup</u>
<u> </u>	Kubus sp.	- Kosaceae	Blackbern
Verille	Mentha (arvensis?)	Labratre	held Mint
<u></u>	Sonchus deraceus	<u>Compositae</u>	<u>Sow Thurth</u>
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JONES & STOKES ASSOCIATES, INC. / 2321 P STREET / SACRAMENTO, CA. 95816

916/444-5638

May 15, 1986

Mr. Dale Achondo Superintendent of Golf City of Sacramento 1231 I Street, Suite 400 Sacramento, CA 95814

SUBJECT: Hansen Ranch Vernal Pool Survey

Dear Mr. Achondo:

Jones & Stokes Associates has completed the first phase of our Spring vernal pool survey of the Hansen Ranch, and our report is enclosed. The survey indicated that, based on our field reviews to date, no plants of special concern are apparently located on the project site. As indicated, we will perform an additional field survey in June, and will submit a final report at that time.

If you have any questions, please call me.

Sinc<u>e</u>rely Ron Bass

Enclosure

VERNAL POOL SURVEY OF HANSEN RANCH REGIONAL PARK

Prepared by Virginia I. Dains May 6, 1986

Methodology

A floristic survey of vernal pools at Hansen Ranch was conducted on April 23-26, 1986. The purpose of this survey was to search for rare plants and to provide recommendations for conservation of vernal pools based on biological and physical parameters. Pools identified during previous field surveys and additional pools mapped during the April site visits were searched for four early-flowering species: hogwallow star (Downingia humilus), Boggs Lake hedge hyssop (Gratiola heterosepala), Red Bluff rush (Juncus leiospermus), and Greene's legenere (Legenere limosa). Twenty-six vernal pools that represented a range of sizes, depths, and locations were studied in additional detail. Data were taken on the number and coverage of species present and on physical attributes including pool area, presence of standing water, and nature of the pool's This survey technique served both to uncover any watershed. rare species that might be present in the pools and to provide a basis for assessing the habitat value of pools with regard to the floristic diversity of native vernal pool plants.

The results of the April survey do not address the potential for late-flowering plants, specifically the members of grass tribe Orcuttiae and Hoover's spurge (Chamaesyce hooveri), to be found on the project site. Additional field work in midto late-June will be conducted to ascertain the presence or absence of these special plants.

Plants of Special Concern

Appendix A lists the plants observed during the two-day field survey in April. None of the plants of special concern was found in Hansen Ranch vernal pools during that survey. A small number of pools (8 out of approximately 55 pools) contained individuals of downingia (<u>Downingia bicornuta</u>). This species is not easily confused with the rarer and smaller hogwallow stars. No populations of Boggs Lake hedge hyssop were noted during the surveys. Special attention was placed on searching for fruiting capsules as well as flowers of this plant. The common and widespread toad-rush (<u>Juncus bufonius</u>) was found in many of the vernal pools, but its more robust and branched habit make it easily distinguishable from the Red Bluff rush, which was not found on the site. Two plants that are commonly associated with Greene's legenere were found in abundance at Hansen Ranch. These are spike rush (<u>Eleocharis</u> <u>macrostachya</u>) and smooth goldfields (<u>Lasthenia</u> <u>glaberrima</u>). Stands containing these two indicator species were often very dense, with little or no exposed soil. Where bare areas occurred in the vegetation, they were due to dense crusts of drying algae that would make the germination and establishment of legenere seedlings difficult. Although Legenere is very inconspicuous, the habitat at Hansen Ranch appears inappropriate for the plant.

The floristic surveys included two additional species that have sometimes been confused with rare plants. A mat-forming annual spurge (<u>Chamaesyce serpyllifolia</u>) that resembles Hoover's spurge, and a low growing grass (<u>Crypsis</u> sp.) that is sometimes confused with the rare orcutt grasses, were collected and their identity confirmed in the laboratory.

Vernal Pool Vegetation

The number and kinds of plant species, and their relative dominance comprise the vegetation of a vernal pool. The number of species in a pool varies in a complex way with its size, depth, degree of isolation from other pools, and history of disturbance. The kinds of species found in vernal pools can be native to California or introduced from other regions. The species may be more or less restricted to vernal pools or they may occur in many wet-site or grassland habitats. The unique quality of vernal pool vegetation is due to the large number of native plants that are more or less restricted to the vernal pool habitat.

Overall, the vegetation of vernal pools at Hansen Ranch was dominated by a few very common species. These included smooth goldfields (Lasthenia glaberrima), spike-rush (Eleocharis macrostachya), and little water buttercup (Ranunculus bonariensis var. trisepalis). Some pools had subdominant populations of popcorn flower Allocarya stipitata var. micrantha) or coyote thistle (Eryngium vaseyi var. vallicola). Two shallow pools were dominated by goldfields (Lasthenia fremontii) and purple hairgrass (Deschampsia danthonioides). All of these are native plants. Introduced plants occurred in all of the pools but were less common. Between 66 and 90 percent of the species recorded in the pools are native to California.

Vernal pool specialists, those plants more or less restricted to vernal pools, were less common in the pools at Hansen Ranch than generalist species with wider habitat requirements. Generally, less than one-third of the plants in each vernal pool were characteristic of the vernal pool habitat. Thus, while the vernal pool vegetation at Hansen Ranch is represented by many native plants, the pools contain relatively few characteristic vernal pool species. This is probably because of the site's history of cultivation and grazing. The vernal pools at Hansen Ranch are visible in aerial photos of Sacramento County taken in 1949, but are evidently disturbed by cultivation. Disturbances such as these can result in long-term changes in vernal pool flora and vegetation. During the April survey, differences in total cover were noted between grazed and ungrazed pools, but species composition and dominance were not different between these two groups.

Vernal Pool Conservation

The vernal pools on the Hansen Ranch property represent one of the few groups of vernal pools remaining in the county on San Joaquin series soils. The early agricultural and urban development of the native landscapes on this lower valley terrace has left few undisturbed sites. Though the pools are in a degraded condition, their regional significance warrants conservation efforts.

The selection of a pool group for conservation should be based on biological and physical parameters. Priority for conservation should be given to pool groups that harbor plants of special concern. Secondly, pools with the greatest diversity of characteristic vernal pool plants should be considered. Lastly, the defensibility of the pools' watersheds will determine the feasibility of any conservation effort.

The latter consideration, based on physical rather than biological properties of pools, is essential if the natural hydrology of the pools is to be maintained. Vernal pools are subjected to wet and dry cycles governed by climate. Each pool, however, differs in the amount of water it receives and stores over the winter season. Some pools fill and drain rapidly several times over the season, while other deeper pools may fill and remain full until water evaporates in the spring. Each of these pool types supports a different group of vernal pool plants. On the Hansen Ranch Property both shallow and deep pools are found, and as described above, different species dominate these pools. Retention of both a natural watershed and a natural water regime is critical for conservation of vernal pools.

For these reasons, pools that are associated with an intermittent stream or influenced by a streamside channel are poor candidates for conservation. In addition, single pools, regardless of large size or depth, may lose species due to biological isolation. For a vernal pool conservation effort to be successful, groups of pools of varying sizes and depths, and with discrete watersheds, should be set aside.

The pools at Hansen Ranch were grouped into six general locations. Representative pools from each location were surveyed in detail. The pool groups were ranked from high to low "quality" by three measures: 1) number of native plants present in the pools, 2) percent of the pool's flora that was native, and 3) percent of the pool's flora that was represented by vernal pool specialists as opposed to habitat generalists.

The results identify the pool group in the northwest corner of the property as highest overall in habitat quality. The watersheds of four pools in this site are fairly well contained; however, the larger single pool may receive run-off from Ascot Avenue. The round-shaped pool is unnaturally drained by a ditch, probably in an attempt to reclaim the pool bed for farming. This corner location is physiographically isolated from the rest of the property by a low berm that drains to the north and west. Control numbers for pools in this group are 38-51, and 51A added during the April survey.

These results are preliminary. The detection of rare species during early summer surveys may change the priority for conservation of pools on the site. APPENDIX A Vernal Pool Plants observed at Hansen Ranch Regional Park, April 1986

NG S S S G G G G G G G G S S G S G G G G	Scientific Name Alisma Triviale Allocarya greenii Allocarya stipitata micrantha Alopecurus saccatus Boisduvalia cleistogama Briza minor Callitriche marginata Centunculus minimus Chamaesyce serpyllifolia Convolvulus arvensis Cotula coronopifolia Crassula aquatica Crypsis sp. Deschampsia danthonioides Downingia bicornuta Eremocarpus setigerus Eryngium vaseyi var. vallicola Elatine californica Eleocharis macrostachya Glyceria declinata Hordeum geniculatum Hordeum leporinum Juncus bufonius Lasthenia fremontii Lasthenia glaberrima Lilaea scilloides Lippia nodiflora Lolium multiflorum Ludwiggia peploides Lythrum hysopifolium Marselia vestita Navarretia intertexta Phalaris lemmoni Pillularia americana Pogogyne zizyphoroides Polygonum sp. Psilocarpus brevissimus Psilocarpus oregonus Ranunculus aquatilis Papune lus pariensis var	Common Name water plantain popcorn flower popcorn flower foxtail grass boisduvalia little quaking grass water starwort centunculus spurge bindweed brass buttons pigmy-weed quell grass purple hairgrass downingia dove weed coyote-thistle waterwort spike-rush manna grass bent-knee barley fox-tail barley toad-rush goldfields smooth goldfields flowering quillwort lippia Italian ryegrass Ludwiggia loosestrife water shamrock navarretia canary grass pillwort annual bluegrass jujube beardstyle smartweed wooly marbles psilocarpus water buttercup
NS NG	Pogogyne zizyphoroides Polygonum sp.	jujube beardstyle smartweed
NS	Psilocarpus brevissimus	wooly marbles
NG	Psilocarpus oregonus	psilocarpus
NG	Ranunculus aquatilis	water buttercup
NG	Ranunculus bonariensis var.	
	trisepalis	little water buttercup
IG	Ranunculus muricatus	dread crowfoot
IG	Rumex crispus	curly dock
IG	Trifolium tridentatum	tom-cat clover
NG	Veronica peregrina	veronica
IG	Xanthium sp.	cockleburr
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(Legend: N = native, I = introduced, S = vernal pool specialist, G = habitat generalist)

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JONES & STOKES ASSOCIATES, INC. / 2321 P STREET / SACRAMENTO, CA. 95816

916/444-5638

July 9, 1986

Mr. Dale Achondo Superintendent of Golf City of Sacramento 1231 I Street, Suite 400 Sacramento, CA 95814

SUBJECT: Hansen Ranch Vernal Pool Survey

Dear Mr. Achondo:

A second survey of vernal pools on Hansen Ranch was completed on June 24, 1986 by Virginia Dains. The results of this survey are enclosed. Plant species of special concern were not found on the site. Mitigation measures are suggested in the report that will preserve vernal pool habitat in the northwest corner of the property.

Because of your need to receive these materials immediately, I am sending this draft report and the field map identifying areas surveyed. We planned to prepare a more informative map before sending the report.

Jo Anne Sorenson will contact you on Monday, July 14, 1986, to determine what additional information or graphics you may need. We apologize for our delay in sending this report to you.

Sincerely,

R. Hazel. Ph.D.

President

Enclosures

VERNAL POOL SURVEY OF HANSEN RANCH REGIONAL PARK

The Hansen Ranch property was visited on June 24, 1986 to search vernal pool habitats for rare summer annuals. The species of interest in this survey included Hoover's spurge (Chamaesyce hooveri), Sacramento orcutt grass (Orcuttia viscida), Colusa grass (Neostaphia colusana), and related rare grasses. Each pool on the project site was searched. Summer annuals found in the beds of the pools were recorded. Plants related to the target species were collected so that positive identification could be made in the laboratory.

All of the pools on the site were dry during the field survey. Pockets of ponded water remained in portions of the intermittent stream. The vegetation of these areas was dominated by water primrose (Ludwigia peploides).

None of the rare summer annuals known to occur in vernal pools was detected at Hansen Ranch. Pool-beds frequently were dominated by coyote-thistle (Eryngium vaseyi) or contained mixed populations of other native and introduced plants. These included Hemizonia pungens, Grindelia camporum, Polygonum aviculare, Eremocarpus setigerus, Xanthium strumarium, Sida hederacea, Lepidium latifolia, Crypsis niliaca, Heleochloa schoenoides, Amaranthus graecizans, Chamaesyce serpyllifolia, Ludwigia repens, and Lippia nodiflora.

Though no special status plants occur in the vernal pools at Hansen Ranch, conservation of a pool group is recommended. The pool group in the northwestern corner of the property that has a diversity of native vernal pool indicator species remains a good candidate group for conservation. To conserve pools on the site, the following guidelines should be observed.

1. The set-aside area should be of adequate size to contain as much of the pools' watersheds as possible. The temporary fence constructed around these pools needs to be extended to the south and east to provide a buffer zone of at least 30 feet around the perimeter of the pools. The eastern boundary of the vernal pool area needs to be extended to encompass two additional pools.

2. The set-aside area should be returned to its natural topography. Street drainage should be rerouted away from the vernal pool area. The ditch that drains the large round pool should be filled. The drain entering the western border of the area should be removed if possible.

3. Public access should be developed to the area for educational and research purposes.

4. The City should continue consultations with qualified botanists and concerned citizens to assure that the requirements as listed above are met.

The loss of vernal pools at Hansen Ranch adds to the decline of this habitat throughout the state. The protection and enhancement of representative pools on the site will reduce these losses. Public awareness of vernal pools through access to the set-aside area will aid future conservation efforts and further mitigate the loss of pools on the property. EXHIBIT D

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CARL F. HANSEN REGIONAL PARK AMD GOLF COURSE

REVISED MASTER PLAN

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EXHIBIT E

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CARL F. HANSEN REGIONAL PARK AND GOLF COURSE ECOS LETTER

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Environmental Council of Sacramento, Inc.

April 22, 1987

Member Organizations

American Lung Association of Sacramento -Emigrant Trails Audubon Society California Native Plant Society. Sacramento Valley Chapter Capitol Bicycle Commuters Association League of Women Voters of Sacramento Modern Transit Society of Sacramento Orangevale Action Committee Planned Parenthood Association of Sacramento Sacramonto-Gounty Form Bureau Sacramento Old City Association Sacramento Toxics Alliance Sacramento Vallev **Bicycle Advocates** Save the American River Association Sierra Club, Mother Lode Chapter South Natomas Community Association Zero Population Growth

Dale Achondo, Golf Superintendent City of Sacramento Department of Parks and Community Services 1231 I Street Sacramento, CA 95814

Dear Mr. Achondo:

We would like to take this opportunity to express our appreciation to you for allowing us to work with you and your staff in the redesign of the Hansen Ranch conceptual plan.

As originally proposed, the golf course and other facilities would have resulted in significant fill or excavation of wetlands within Hansen Ranch Regional Park. These wetlands include riparian woodland, seasonal freshwater marsh, and vernal pools. The recently developed alternative conceptual plan reduces the amount of disturbance to the wetlands which is an improvement upon the original conceptual design. To mitigate this disturbance, you and your staff now propose to preserve some of the more floristically significant vernal pools, restore and enhance riparian woodland, and create perennial freshwater marsh ponds.

As noted in your December 15, 1986 letter, we generally agree with the design set forth in the October, 1986 conceptual plan and understand that the issues set forth below will be incorporated into that design:

1. The areas designated as "natural" will not be reduced in size and may even increase in size.

2. Golf hole #5 may be changed in the final plan so as to curtail the intrusion of golf balls in air space over the wetlands area.

3. The final plan may, in fact, provide for additional wetlands areas.

4. The maintenance area will be constructed in such a manner that runoff water does not enter the golf course area, vernal pools, or natural areas.

5. We will be involved in providing suggestions for the type of native grasses, plants, and trees for landscaping the site.

6. Native perennial grasses will be used to provide buffer or protective zones between the maintained turf area and the natural areas.

7. Native plants found locally will be planted in the roughs.

8. Irrigation and drainage will be designed to mitigate impact on the vernal pools and other wetlands.

We understand that the conceptual plan will undoubtedly require some changes to mitigate impacts identified by the Environmental Protection Agency, National Fish and Wildlife Service, and the Army Corps of Engineers during their review of the construction permit applications.

We look forward to working with you and your staff in the development of a management plan for the natural areas and would like to assist you in the reintroduction of native plant life to those areas.

Sincerely,

Stere Cato

STEVEN CATES Environmental Council of Sacramento

alta Jura

ALTÀ TURA Sacramento Audubon Society

CRAIG MARTZ California Native Plant Society, Sacramento Valley Chapter

EXHIBIT F

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CARL F. HANSEN REGIONAL PARK AND GOLF COURSE MITIGATION MEASURES NECESSARY

GEOLOGY AND SOILS

Disturbance of soils and clearing of vegetation during construction could cause significant erosion and sedimentation problems. Grading should be conducted when erosion potential is minimal (May to October). Eroded streambanks should be stabilized during construction. Development, including pond excavation and vegetation removal should not occur within 100 feet of Dry Creek. A sediment control plan should be formulated for construction within the Robla Creek Channel.

Hydrology and Water Quality

Site preparation would entail grading throughout the property and, consequently, potentially significant increases in the amount of sediment in surface runoff. Preliminary drainage studies indicate adequate ponding area on-site, but a detailed drainage plan showing specific flood control and storage structures should be prepared as part of engineering improvement plans. Erosion control proposed in the preliminary measures conceptual drainage plan for the site should be implemented to minimize stream sediment loads. Grading should occur during the period of least rainfall.

Vegetation and Wildlife

The project would eliminate or degrade some significant vegetation and wildlife habitat. Some new habitat would be created, and a new habitat type would be introduced.

Wildlife using the site wetlands would decline in numbers and diversity. The master plan design should provide natural area management zones and expanded preserved wetlands to protect vernal pools and wildlife.

A 404 permit should be obtained and a detailed wetland management plan should be prepared to ensure that no net loss of habitat values occurs. This plan should identify the area, types of wetlands, areas of each wetland type, and wildlife value of the wetland types. At the minimum. the plan should include: acre-for-acre replacement of vernal pools; and marsh capable of supporting use, similar to current use of the site wetlands. wintering' and nesting bv waterfowl and shore birds.

<u>Transportation</u>

Two locations of the existing circulation system would not accommodate project volumes at acceptable levels of operation:

- Norwood Avenue between
 Bell Avenue and Silver Eagle
 Road;
- The Northgate/I-80 interchange off-ramp intersections would have extensive traffic backups due to limited visibilty.

Noise

New recreational development immediately adjacent to the railroad will be affected by train traffic. Norwood Avenue should be widened to four lanes from Silver Eagle Road to Bell Avenue. These improvements would need to be scheduled and funded as part of the City's capital improvement program.

Preliminary analysis of 1995 volumes at Northgate/I-80 interchange ramps indicates signals would be necessary. These improvements would need to be scheduled and funded as part of the City's capital improvement program.

The project plans alleviate railroad noise impacts upon park users through the placement of the least sensitive recreation users near the railroad. Appropriate design measures for noise control should be incorporated into the The project sponsor project design. should also consider designing landscaping near the western project boundary to obscure views of the railroad tracks from the site.

Hansen Ranch Regional Park Final EIR

prepared by: City of Sacramento Department of Community Services Golf Division

technical assistance from: Larry Seeman Associates Goodrich Traffic Group

DECEMBER 1985 SCH #84013004



CITY OF SACRAMENTO

DEPARTMENT OF PARKS AND COMMUNITY SERVICES

ROBERT P. THOMAS Director

G. ERLING LINGGI Assistant Director CROCKER ART MUSEUM DIVISION GOLF DIVISION ' METROPOLITAN ARTS DIVISION MUSEUM AND HISTORY DIVISION RECREATION DIVISION PARKS DIVISION ZOO DIVISION

Interested Persons

SUBJECT: Final EIR for the Hansen Ranch Regional Park

The Department of Parks and Community Services is forwarding this document for a fourteen day review period to persons who commented on the Draft EIR as indicated on the enclosed Final EIR distribution list. Commentators should determine if the responses sufficiently address their comments.

The Final EIR consists of an addendum containing comments on the Draft EIR and responses by the City to these comments. Copies of commentators' letters are included in this addendum. Comments and responses are grouped by commentator.

Comments on the Final EIR and/or the merits of the project should be received by the Parks and Community Services Department no later than January 13, 1985 to be considered by staff.

Public hearings on the proposed park have not been determined. Persons interested in knowing when public hearings will be held should submit their name and address to the Golf Division.

A copy of this document has been forwarded for public review to the following libraries: Carmichael, Central (downtown), Del Paso, Martin Luther King, North Sacramento. Hagginwood, and the CSUS Science/Tech Library. In addition. a copy may be reviewed or obtained at the Department of Parks and Community Services. 1231 I Street, Suite 400, Sacramento, California 95814.

If you have any questions regarding this Final EIR, please contact Barbara E. Bonebrake at (916) 449-5375.

ROBERT P. THOMAS, Director Parks and Community Services

RPT:ja

Enclosure

Robert P. Thomas, Director Dept. of Parks & Comm. Serv. 1231 I Street, Suite 400 Sacramento, CA 95814

Sacramento City Council City Hall, Room 205 915 I Street Sacramento, CA 95814

 Chief John Kearns Sacramento Police Department
 ● 813 6th Street Sacramento, CA 95814

Walter J. Slipe, City Manager City of Sacramento
915 I Street, Room 109 Sacramento, CA 95814

Mel Johnson, Director
Department of Public Works
City of Sacramento
915 I Street, Room 207
Sacramento, CA 95814

James Bloodgood, Traffic Engr. City of Sacramento ● 915 I Street, Room 300 Sacramento, CA 95814

Del Paso Branch Library 920 Grand Avenue Sacramento, CA 95822

Chief William Powell Fire Department City of Sacramento 1231 I Street, Room 401 Sacramento, CA 95814

Marty Van Duyn, Director Planning Division City of Sacramento Sacramento Central Library 828 I Street Sacramento, CA 95814

Carmichael Branch Library 5605 Marconi Avenue Carmichael, CA 95608

Martin Luther King Branch Library 7340 24th Street Bypass Sacramento, CA 95822

Rob Richard, Director Sacramento Public Library 1010 8th Street Sacramento, CA 95814

North Sacramento Branch Library 492 Arden Way Sacramento, CA 95815

James Jackson, City Attorney City of Sacramento 812 10th Street, Room 201 Sacramento, CA 95814

Hagginwood Branch Library 3271 Marysville Boulevard Sacramento, CA 95815

Christine Olson, PIO City of Sacramento 915 I Street, Room 109 Sacramento, CA 95814

California Reclamation Board Attn: Ted Allen 1416 9th Street, Room 455-B Sacramento, CA 95814 Sacramento City Planning Commission 1231 I Street, Suite 300 Sacramento, CA 95814

Sacramento County Board of Supervisors 700 H St., Admin. Bldg. Sacramento, CA 95814

Sacramento County Planning Department 827 7th St., Rm. 120 Sacramento, CA 95814

Sacramento County Environmental Section Attn: Al Freitas 827 7th St., Rm 101 Sacramento, CA 95814

Sacramento County Recreation & Parks Dept. Attn: Walt Ueda 3711 Branch Center Road Sacramento, CA 95827

Sacramento County Environmental Health Agency 3701 Branch Center Road Sacramento, CA 95827

Sacramento Bee City Desk P.O. Box 15779 Sacramento, CA 95813

Sacramento Union City Desk 301 Capitol Mall Sacramento, CA 95812

Calif. Dept. of Parks & Rec. Attn: James M. Doyle Environmental Review Section P.O. Box 2390 Sacramento, CA 95811 Sacramento Area Council of Governments Attn: Executive Director 106 K Street, Suite 200 Sacramento, CA 95814

California State Water Quality Control Board Attn: William Crooks 3201 S Street Sacramento, CA 95816

U.S. Bureau of Reclamation Department of Interior 2800 Cottage Way Sacramento, Ca 95825

Reclamation Dist. #1000 Attn: District Engineer 1633 Garden Highway Sacramento, CA 95833

SMUD

Paul Olmstead P.O. Box 15830 Sacramento, CA 95813

Environmental Council of Sac. Attn: Steven Cates 909 12th Street Sacramento, CA 95814

Native American Heritage Commission Attn: John Smith 1400 10th St., Rm. 200 Sacramento, CA 95814 Calif. Dept. of Fish & Game Attn: John Turner 1701 Nimbus Road Rancho Cordova, CA 95670

U.S. Army Corps of Engineers Attn: Col. A. E. Williams 650 Capitol Mall kSacramento, CA 95814

Office of Planning & Research Clearinghouse, Room 121 1400 Tenth Street Sacramento, CA 95814

Regional Transit Attn: Richard Mendez

P.O. Box 2110 Sacramento, CA 95810 Dept. of Health Services Attn: Lerome S. Lukas 2151 Berkeley Way Berkeley, CA 94704

The Library-Science/Tech Attn: E. Heaser California State University 2000 Jed Smith Drive Sacramento, CA 95819

U.S. Fish & Wildlife Serv. Attn: Jack Williams 2800 Cottage Way, #1823 Sacramento, CA 95825 Sacramento Chamber of Commerce 917 7th Street Sacramento, CA 95814 Attn: Mike Seward

Sacramento Metropolitan Chamber of Commerce P. O. Box 1017 Sacramento, CA 95805 Attn: George Cope

North Sacramento Chamber of Commerce 1201 Del Paso Boulevard Sacramento, CA 95815

South Natomas Community Association P. O. Box 15362 Sacramento, CA 95813

Sacramento Audubon Society c/o Alta Tura 4633 Q Street Sacramento, CA 95819

California Native Plant Society c/o Earl Cummings 13206 Jackson Road Slough House, CA 95683

Sierra Club c/o Vickie Lee 1360 Perkins Way Sacrameto, CA 95818

Arcade Creek Restoration Project c/o Steve Talley 4347 Stollwood Drive Carmichael, CA 95608

Mattie Evans 300 Yampa Circle Sacramento, CA 95838

Board of Trustees American River Flood Control P. O. Box 2511 Sacramento, CA 95811 Public Utilities Commission California State Building San Francisco, CA 94102 Attn: William Schultz

COMMENTS RECEIVED ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

INTRODUCTION

According to State CEQA Guidelines, a Final Environmental Impact Report consists of (1) the Draft EIR or revision thereof; (2) a list of persons, organizations and public agencies commenting on the Draft EIR; (3) the comments and recommendations received on the Draft EIR, either verbatim or in summary; and (4) responses made to the significant environmental points raised by the comments.

This section of the addendum consists of a list of organizations and agencies commenting on the Draft EIR, follwed by responses to the significant points raised by the comments. The final section contains copies of the actual comments received.

Commentor	Date	Response Page	Comment Page
State and Federal Agenc	<u>ies</u>		
California Department of Fish and Game	April 30, 1985	3	24
Public Utilities Commission	April 24, 1985	4	25
The Reclamation Board	April 15, 1985	4	26
Local Agencies			
City of Sacramento, Planning Commission	May 3, 1985	5	27
City of Sacramento, Department of Public Works	April 10, 1985	7	29
Private_Individuals and	Organizations	·	
The Arcade Creek Restoration Committee	June 3, 1985	8	30

Commentor	Date	Response Page	Comment Page
The California Native Plant Society	May 22, 1985	12	50
Environmental Council of Sacramento, Inc.	June 2, 1985	13	52
Sacramento Audubon Society	May 31, 1985	16	55
Public Hearing, May 24,	1985, Robla School		
	May 24, 1985	19	-

RESPONSES TO COMMENTS

This section presents the response to the comments received on the Draft Environmental Impact Report. As required by State CEQA Guidelines, only responses to significant environmental points are included. For cross reference, all comments and responses are sequentially numbered.

STATE AND FEDERAL AGENCIES

<u>California Department of Fish and Game</u>

<u>Comment 1:</u> The area contains both upland grassland with sparse tree cover and wetlands, including some vernal pools. Freshwater marsh and aquatic vegetation are found at several ponds formed in old channels and larger topographic depressions. The area is currently heavily grazed by livestock which has degraded much of the native cover. The proposed project would eliminate most of the vernal pools and some of the existing ponds through grading. The project's overall impact will result in a reduction in the number and diversity of wildlife within the 268 acres of land.

<u>Response:</u> The Draft EIR reaches similar conclusions on pages E-1 through E-6.

<u>Comment 2:</u> The Department recommends the mitigation measures listed on pages D4, D5, E6, and E7 of the DEIR be included in any project permit. These include water quality measures for the waterways, the preservation of the largest typical vernal pool, the preparation of a detailed wetlands management plan under the Corps of Engineers 404 Permit, the creation of a 100-foot buffer along each side of Dry Creek to preserve natural vegetation and protect fisheries values, and survey of the marsh along Linda Creek for evidence of the State-designated threatened giant garter snake. The wetlands management plan should seek acre-for-acre replacement of wetlands and attempt to provide wildlife values equal to those currently found on the project site.

To protect fishery resources, any alteration of Dry Creek should be designed to allow passage of anadromous fish. It will be necessary to apply to the Department for a Streambed Alteration Agreement pursuant to Section 1601 of the Fish and Game Code, prior to any construction activity in the waterways.

<u>Response:</u> The comment is informational, indicating the position of the Department and summarizing recommended mitigation measures. The design of the project is conceptual at this time, and final design may not incorporate

modifications to Dry Creek. A 1601 Agreement will be obtained if the final design includes modification of the creek.

Public Utilities Commission

<u>Comment 3:</u> The staff has reviewed the report and we would again suggest that some type of barrier or fence be erected between the golf course and the railroad right-of-way, as stated in our letter of March 2, 1984. The barrier or fence would do two things: (1) it would serve as a noise barrier, mitigating that impact, and (2) it would provide a safety barrier for the park users, thus restricting them from inadvertently getting onto the railroad's right-of-way and possibly getting hurt.

<u>Response:</u> A barbed wire fence currently exists between the project site and the railroad right-of-way. A 6-foot tall security fence is proposed for the west project boundary (see Exhibit A-3 in the Draft EIR). In the floodway portions of the site, this fence would be temporarily removed during the flood season to allow flood-borne debris to pass the fence. Because the project site is at a substantially lower elevation than the railroad right-ofway, a noise barrier would have to be quite high to be effective. The Draft EIR recommends requirement of a special noise study of portions of the park where railroad noise exceeds 65 dBA (L_{dn}) in mitigation measure 1 on page H-3.

Reclamation Board

<u>Comment 4:</u> A major portion of the project site is located in the Dry Creek Designated Floodway and is under the Board's jurisdiction. Plans for all work in the floodway that may affect the free flow of floodwaters must be reviewed and approved by the Board before start of work. This includes, but is not limited to plans for construction, filling, excavation and the alteration of riparian vegetation, and was explained in a memorandum dated February 14, 1984 to Dale Achondo in response to the Notice of Preparation of a DEIR.

As any work in the floodway must conform to the Board's standards, the Final EIR should include a discussion of the proposed project's compatibility with these standards.

<u>Response:</u> The design of the project is conceptual at this time, and detailed plans that would allow evaluation of the project relative to the Reclamation Board's standards are not available. Mitigation measure 5 should be added to page D-5 of the Draft EIR to read:

5. Project plans for construction, filling, excavation, and the alteration of riparian vegetation should be designed to the standards of

the Reclamation Board and should be submitted to the Reclamation Board for approval prior to development of the project.

LOCAL AGENCIES

City Of Sacramento, Planning Commission

<u>Comment 5:</u> Expand the discussion of the effects of increased urban surface runoff on fish, wildlife, and vegetation. This should include unabsorbed fertilizers, petrochemical by-products, rubber particles, and various synthetic materials. Potential mitigation measures should include control of nutrient sources, bacterial concentrations, soil sediments, leaves, litter, pesticides, and other toxic substances, into Dry Creek.

Response: These materials generally are either toxic or encourage eutrophication and decrease the oxygen content of water. Their effects are normally greatest on fish, less on wildlife, and least on vegetation. A detailed analysis of the effects of these materials on aquatic environments is not possible at this time, as effects would depend on various currently unknown factors, such as the chemicals to be used for park maintenance, the proximity of highly maintained landscaping to aquatic environments, and the location of paved surfaces relative to the aquatic environments. The Draft EIR includes a number of mitigation measures to control the nutrient sources, bacterial concentrations, soil sediments, litter, pesticides, and other toxic substances (mitigation measures 2, 3, and 4 on pages C-6 and C-7; measures 1-4 on pages D-4 and D-5; and measure 4 on page E-6). The erosion control plan and seasonal grading limitations would control sediment generation, and the 100-foot buffer would allow undisturbed vegetation to absorb nutrients and trap sediment and other materials. Leaves are a natural detritus source, and the amount of leaves would not increase significantly if measures recommending. a 100-foot buffer are implemented.

<u>Comment 6:</u> Discuss the affects of the proposed project on on-site trees. An inventory of on-site trees (i.e., species, size, condition) including proposed protections, and mitigations for any losses, should be provided.

<u>Response:</u> A tree inventory was conducted, and the results are presented in Appendix A. In summary, 580 trees are on the site, including Oregon ash, valley oak, blue oak, Fremont cottonwood, and willow. The size range includes 268 trees less than 6 inches Diameter at Breast Height (DBH), 244 trees between 6 and 24 inches DBH, 67 trees between 24 and 48 inches DBH, and one tree larger than 48 inches DBH (a blue oak). Most of the trees would be

retained, but the exact number of retained trees will depend on mitigation measures adopted and the final design of the park.

<u>Comment 7:</u> Expand the transportation section to discuss the potential for a bikeway system within park boundaries, that would tie in with other area bike routes.

<u>Response:</u> The Sacramento Bikeway Master Plan calls for an off-street bikeway adjacent to the site following the Natomas East Main Drainage Canal from Ascot Avenue to the American River Parkway and a bikeway following Dry Creek from the Natomas East Main Drainage Canal to Marysville Boulevard, possibly continuing to Gibson Ranch. On-street bikeways are proposed for Main Avenue, Norwood Avenue, Claire Avenue, and Marysville Boulevard. The Natomas East Main Drainage Canal bikeway and the on-street bikeways could provide bicycle routes to the site or near the site. The Dry Creek bikeway would cross the site, providing a bikeway within the proposed park. For safety reasons, this bike path would use the proposed park maintenance road and the proposed entry road to cross the site.

<u>Comment 8:</u> Does the City currently have the necessary right-of-way on both sides of the proposed roadway, to develop this access? If not, discuss how and when the right-of-way will be acquired.

<u>Response:</u> The City currently has the necessary right-of-way for the access road.

<u>Comment 9:</u> Does the Department of Parks and Community Services plan on extending the park access road north over Dry Creek to Ascot Avenue? If so, discuss how the necessary right-of-way will be acquired, and when this extension is planned to take place.

<u>Response:</u> Present plans do not call for extending the access road north to Ascot Avenue. Although this extension is not part of the current project, it was shown on a 1972 Master Plan, and extension to Ascot may prove to be desirable for funding purposes.

<u>Comment 10:</u> Expand the discussion of noise to include major noise sources within the park (i.e. the trap/skeet shooting facility) and their effect on the use and function of the park.

<u>Response:</u> The proposed trap and skeet facility would be the major noise source within the park, and may cause conflicts with other proposed uses such as golf and picnic areas. However, a trap and skeet range currently exists in

a similar setting at the Haggin Oaks Park. Mitigation measure 1 on page H-3 of the draft EIR should have the following sentences added to it:

The special noise study should also evaluate noise generated by the proposed trap and skeet range, both in terms of potential conflicts with other park users and residents near the park. If necessary, appropriate design measures to minimize noise from this facility should be incorporated into project design.

Please also refer to response 48.

<u>Comment 11:</u> Analyze the potential impacts of the proposed park on surrounding land uses.

<u>Response:</u> These effects are discussed on page B-13 of the Draft EIR.

City of Sacramento, Public Works Department

<u>Comment 12:</u> On Page G-1, the fifth paragraph: The statement is made "Drivers travel about 55 mph or faster along Norwood Avenue, making it dangerous to cross this road at minor, unsignalized intersections." This statement is inappropriate. The fact that drivers are traveling 55 mph does not make this a dangerous road. Also it may be noted that this section of Norwood Avenue does not experience an unusual number of accidents. This road is typical of many of the rural roads in the northern portion of the City.

<u>Response:</u> This statement should be revised to read: "Drivers travel about 55 mph or faster along Norwood Avenue, making it difficult to cross this road at minor, unsignalized intersections."

<u>Comment 13:</u> On Page G-7 under Mitigation Measures No. 2 and No. 3: It is suggested that the existing configuration of Norwood Avenue and Main Avenue be changed to eliminate a number of conflict points. Again the statement "potentially dangerous" may be a little strong in this situation as the accident experience shows no difficulty at this intersection. Another point to keep in mind is that this intersection is used as a transport route for aircraft coming to and from McClellan Air Force Base. Any change in this intersection would have to accommodate the transportation of this type of vehicle. The City has developed drawings of a Typical Expanded Intersection for this location that will be built as development occurs at this location.

<u>Response:</u> This mitigation measure should be revised to read: ... to reduce potential driver confusion and conflict points illustrated in Exhibit

G-5. One possible solution is also shown on this exhibit. The US Air Force should be consulted when designing these changes to ensure that conflicts with aircraft transportation do not develop."

PRIVATE INDIVIDUALS AND ORGANIZATIONS

The Arcade Creek Restoration Committee

<u>Comment 14:</u> (This comment is summarized because of its length.) The Hansen Ranch site once supported a riparian valley oak woodland and an upland blue oak woodland-vernal pool complex. The creek banks were more gentle, and the riparian-upland ecotone was within a few elevational feet of the bank top.

<u>Response:</u> The Draft EIR is focused on existing conditions. Conjecture regarding former conditions on the site is not relevant to impacts of the proposed project.

<u>Comment 15:</u> (This comment is summarized because of its length.) The project site contains upland and floodplain fringe vernal pools, upland annual grasses with relict blue oaks, relict riparian valley oak, a riparian forest along Dry Creek, and a permanently wet lowland area. The vernal pools contain a number of vernal pool endemic plant species, but significant numbers of <u>Downingia</u> and <u>Alopecurus</u> were only found in one pool. Several rare or endangered vernal pool plants may be present. A relict blue oak-vernal pool complex exists, and could be restored. Valley oak once forested the area, and heavy grazing has prevented reestablishment of valley oaks.

The Draft EIR reaches similar conclusions regarding the Response: existing vegetation, with the exception of the blue oaks. We do not feel that the few blue oaks (10) constitute a relict stand, especially in the absence of stumps or other evidence that they were once widespread on the site. During our site visits, significant numbers of Downingia bicornuta were present in all vernal pool complexes except one, illustrating the variability of vernal pool plant distribution and numbers in response to annual variations in rainfall and similar factors. The comment provides information on the presence of several plant species not documented in the Draft EIR: meadow barley, meadow foxtail (Alopecurus), button snakeroot or coyote thistle, woolly marbles (<u>Psilocarpus</u> <u>brevissimus</u>), and marselia. The Draft EIR describes our findings regarding rare, threatened, and endangered plant species, please also see the response to comment 22. Grazing has changed the composition of herbaceous plants on the site, generally favoring forbs and introduced grasses and decreasing native grasses, and may have reduced

<u>Comment 16:</u> (This comment is summarized because of its length). The project as proposed would result in the loss of all but one of the existing vernal pools in the site. The remaining vernal pool may be affected by irrigation water and changes in drainage patterns. The annual grassland vegetation type and associated wildlife habitat would be almost entirely eliminated. The riparian trees would be retained, but development would occur in the understory. The existing permanently wet lowlands would be converted to open water with a narrow band of emergent vegetation. Wildlife values, particularly for ducks, of remaining wetland would be seriously degraded by the trap and skeet range and the multi-purpose playing fields proposed to be adjacent to the dredged wetlands.

<u>Response:</u> The Draft EIR reaches similar conclusions regarding the impacts of the project as proposed. Measures to prevent adverse impacts to the vernal pool that would remain are identified, as are measures to protect the understory of the riparian trees (Mitigation measure 1 on page E-6, measure 3 on page C-7, and measure 4 on page E-6). The Draft EIR also recommends preparation of a wetland management plan, with the goal of replacing existing wetland habitat values (Mitigation measure 3 on page C-7 and mitigation measure 3 on page E-6).

<u>Comment 17:</u> (This comment is summarized because of its length) The comment describes four options for implementation of the Low Intensity Alternative. Each option entails designation of parts of the site as natural habitat areas, and includes restoration of riparian habitats and other habitat types. The golf course and tennis courts as proposed as part of this alternative could be constructed without significantly degrading natural habitat values if innovative design and landscaping were used. One or more conceptual plans should be developed for this alternative.

<u>Response:</u> Each of the options would result in some loss of vernal pools and wetland habitat values, but the degree of loss would be reduced substantially. Option "a" would result in loss of most of the atypical vernal pools and the best quality waterfowl breeding areas, but would preserve typical vernal pools and some freshwater marsh. Habitat for wintering waterfowl would probably be degraded by intensive human activity near the remaining atypical vernal pool, which is heavily used by wintering waterfowl. Option "b" would preserve typical vernal pools, some of the atypical vernal pools, some of the freshwater marsh, and some annual grassland. The best waterfowl breeding area would be developed, and disturbance levels to wintering waterfowl would be high. Option "c" would preserve typical vernal pools, one

atypical vernal pool, some of the freshwater marsh, and some annual grassland. Almost all of the wintering and breeding areas for waterfowl would be eliminated, and human disturbance levels at the remaining atypical vernal pool would preclude significant use by wintering waterfowl. Option "d" would be similar to option "c", except that different parcels of annual grassland would be preserved. The riparian woodland restoration included with these options would be biologically desirable, but would replace the existing habitats with different habitats. These tradeoffs are difficult to evaluate, as they do not include "in kind" habitat value replacement (required by federal policy). Although each option would result in some significant adverse impacts, we concur that impacts could be reduced through the Low Intensity alternative. At this time, the design of the park is conceptual, the final design will consider environmental issues raised by other alternatives and will be subject to approval by state and federal agencies.

The alternatives considered were developed through several public scoping meetings conducted by the City, and additional alternatives were not within the scope of this EIR.

<u>Comment 18:</u> (This comment is summarized because of its length) The no project alternative would prevent reestablishment of valley oaks and blue oaks if grazing were allowed to continue. Heavy grazing would degrade the grassland and vernal pools, and increase pressure for intensive recreational development. If grazing were stopped, valley oaks and blue oaks would expand throughout the site, and native forbs and grasses would increase. The area would be more appealing as a nature preserve after 20 years of no grazing.

<u>Response:</u> Although grazing has probably reduced oak seedling establishment, some seedlings continue to be established. Because the no project alternative assumes that current land uses would continue, and because current grazing levels are not excessive, the site could be expected to remain essentially unchanged. Some increase in oak seedling establishment would occur if grazing were suspended, but these seedlings would remain subject to intense competition with grasses and browsing by wildlife. Native grasses would probably not increase significantly due to a lack of seed sources and the overwhelming amount of seed produced each year by the aggressive annual grasses. Native forbs would probably decrease on the site due to competition with annual grasses, some grazing or periodic prescribed burning to reduce annual grass cover has been found to increase native forbs at other vernal pool and grassland sites in the Sacramento Valley.

<u>Comment 19:</u> Alternatives to full development are hardly discussed and cumulative impacts along Dry Creek and the Natomas East Drain are not discussed at all.

<u>Response:</u> Please refer to the response to comment 17. A Cumulative Impacts section should be added to page B-14, to read:

Cumulative Impacts

Cumulative impacts of the project on hydrology would include an incremental increase in nutrient loading in Dry Creek, Robla Creek, and the Natomas East Main Drainage Canal, which would be minimized by recommended mitigation measures. The project would entail an incremental reduction of vernal pool, freshwater marsh, and annual grassland and wildlife associated with these habitat types. Mitigation measures to avoid incremental loss of freshwater marsh are incorporated in the EIR. Loss of vernal pools has been identified as a significant unavoidable and irreversible impact.

No cumulative increases in flooding are anticipated. Increases in traffic volumes would contribute toward buildout traffic volumes anticipated in the North Sacramento Community Plan.

<u>Comment 20:</u> A functional example of valley fringe blue oak woodland with vernal pools, adjacent valley oak riparian woodland, and permanently wet lowlands (the ecosystem complex which once characterized this part of Sacramento) has been locally extinct for some time. Restoring an example of this ecosystem complex within a portion of Hansen Regional Park would substantially increase the regions natural habitat value and enhance long term wildlife and open space values within the Natomas East Drain. This type of natural area would compensate for the loss of other areas within the park to single purpose active use development. The type of natural areas shown in Figure 2a or b would also compensate for the loss of restorable blue oak woodland to recently approved active recreation development within nearby Del Paso Regional Park, including the proposed sale of the eastern half of an approximate ten acre parcel north of Longview Drive. This over-all solution would provide the community with a significant upland natural area within an enhanced setting and generate needed revenue to finance both active and passive recreation projects within the City Parks System.

<u>Response:</u> Creation of a new blue oak woodland with vernal pools would not replace the habitat values lost with equal (in kind) habitat value, as blue oak woodland does not currently exist on the site. The blue oak woodland would tend to reduce waterfowl use by reducing the open habitats preferred by wintering waterfowl. The Draft EIR contains measures to avoid adverse impacts on the riparian valley oak, and further enhancement would not provide "in kind" mitigation for loss of wetland habitat value associated with both the

typical and atypical vernal pools and the existing freshwater marsh. The natural areas proposed in Figures 2a or 2b (options "a" and "b") would entail significant loss of wetland habitat values, which would not be mitigated by expansion of riparian valley oak woodland or by creation of new blue oak woodland.

California Native Plant Society

<u>Comment 21:</u> The alternatives section of the EIR does not address even a modest array of alternatives which could consider something less than a "championship" golf course, or "tournament type" tennis facilities. Why, for example, are the most productive wildlife habitats (the creek and the wetland) encroached on by a picnic area and a pedestrian path?

<u>Response:</u> The alternatives considered were developed through several public scoping meetings. The draft EIR includes mitigation measures to prevent encroachment into the creek (mitigation measure 3 on page C-7 and measure 4 on page E-6), and to maintain the wildlife value of the wetlands, particularly current use of the wetlands by wintering and nesting waterfowl and shorebirds (Mitigation measure 3 on page E-6).

<u>Comment 22:</u> The Vegetation and Wildlife portion of the report does not contain a statement regarding the dates on which the botanical survey was done, nor does it indicate that a special effort was made to determine that Bogg's Lake hedge-hyssop did not occur. It appears to us premature to conclude that this state-listed species does not occur here, because the habitat is otherwise apparently suitable. An adequate document should provide evidence that a search was made by a qualified individual at appropriate seasons to draw a reasonable conclusion no rare plants were present.

<u>Response:</u> The biotic survey of the site was conducted by Mr. Robert Schonholtz, LSA's senior wildlife biologist. Mr. Schonholtz is familiar with the biotic resources of the Sacramento area, including vernal pools and their associated plant communities. He regularly serves as a docent at the Jepson Prairie vernal pool area, and has participated in rare plant monitoring at that site. Mr. Schonholtz made three visits to the site, one in early spring before the pools dried out, one in mid-spring when water was present only in the larger pools, and one in late spring when all but the largest vernal pool complex had dried out completely. These visits covered the flowering periods of each potentially present rare plant species, except for coyote thistle (as noted in the Draft EIR). The Draft EIR does not conclude that these plants are not present on the site, but rather notes that no rare plants were observed during field visits and that presence or absence of Tuolumne coyote thistle could not be determined. Additionally, a reconnaissance level survey

of the site was conducted by Jones and Stokes Associates, Inc. in May 1985. This survey found no federal or state listed rare, threatened, or endangered plants on the site. A copy of the Jones and Stokes report is reproduced as Appendix B to this report. Although no rare plant species have been found on the site, we feel that further surveys may be appropriate, considering the annual variability in the distribution and abundance of vernal pool plant species (please see the response to comment 15). For this reason, an additional mitigation measure should be added to page E-7 of the Draft EIR, to read:

7. A complete floristic survey of vernal pool vegetation should be conducted on the site to determine if any rare plant species are present. This survey should be conducted by a person familiar with species potentially present in Sacramento area vernal pools, and should include identification of plants in this vegetation type at monthly intervals from March through July.

<u>Comment 23:</u> We cannot agree that retention of the largest typical vernal pool would effectively mitigate for loss of others. Disruption of the hydrology and watershed would substantially alter the pool's function and probably the species mix it contains. Furthermore, the diversity in plant species between one pool and the next is a celebrated property of vernal pools. Preservation of a single pool virtually assures that several species will be lost from the often distinct flora of other pools in the project area. You would probably not accept a project which eliminated every oak from the site. You should not entertain a project which would eliminate one or more possibly much rarer species.

Response: We concur that retention of the largest typical vernal pool alone would not completely mitigate for the loss of all remaining vernal pools on the site. Mitigation measure 2 on page E-6 recommends that consideration be given to retaining additional vernal pools. The comment correctly notes that some plant species would be eliminated from the site. The comment correctly notes that some plant species would be eliminated from the site. The Draft EIR notes that some loss of vernal pools is a significant environmental impact which is irreversible and unavoidable (page B-13). The large vernal pool to be preserved has steep sides and a small watershed that does not extend far beyond the top of the steep sides. For this reason, we feel that its preservation is viable so long as grading does not encroach on the pool and irrigation drainwater is not allowed to reach the pool, per mitigation measure 1 on page E-6. During the final design of the project, an attempt will be made to determine the best vernal pools to preserve through a study to be completed in the spring of 1986. State and federal agencies will also assist in this determination.

Environmental Council of Sacramento, Inc.

<u>Comment 24:</u> The Draft EIR states that one of the goals of the North Sacramento Community Plan is to: "Provide an adequate amount of public and private parkland and open space to meet user needs and to <u>protect important</u> <u>natural open space</u>," and that one of the objectives is to: "<u>Protect natural</u> <u>open space access through the use of appropriate design standards</u> and other resource management and planning techniques." (Emphasis added.)

<u>Response:</u> The comment correctly notes that these goals and objectives from the North Sacramento Community Plan are cited in the Draft EIR (page A-5).

<u>Comment 25:</u> The Environmental Council of Sacramento recommends that the <u>Wildlife and Vegetation</u> section of the EIR be rewritten so as to include complete documentation and mapping of the existing natural heritage features of Hansen Park. This would allow the City and the public to assess the project's impact.

<u>Response:</u> Section E of the Draft EIR provides a description of existing biotic resources on the site. A map of vegetation and habitat types on the ranch has been prepared, and is presented as Exhibit 1.

<u>Comment 26:</u> This assessment should be conducted by qualified plant and wildlife biologists. Frequent visits to Hansen Park should be made each season so that the risk of not observing important species is diminished.

<u>Response:</u> Please see the response to comment 22.

<u>Comment 27:</u> The Environmental Council also recommends that two or more additional site plans be developed that would increase the amount of open space and which will preserve vernal pools. A qualitative and quantitative discussion of the impact of these alternatives should be held.

<u>Response:</u> Please see the response to comment 21.

<u>Comment 28:</u> Page B-4, <u>Land Use</u>. The proposed project impact should be rewritten to state: "The proposed development of Carl Hansen Regional Park would <u>not</u> fulfill the goals and objectives of the City's land use plans for this part of Sacramento <u>because of the destruction of important natural open</u> <u>space</u>.

<u>Response:</u> The project as proposed would achieve the goals of providing an adequate amount of public and private parkland and open space to meet user needs (page A-5) and of providing a wide range of improvements not normally found in local community or neighborhood facilities. Although some natural open space would be preserved by the project as proposed, the degree of compliance with the goal of protecting important natural open space is a matter of opinion. The Draft EIR does note that the project as proposed would result in significant adverse impacts, which are unavoidable and irreversible, on open grassland and vernal pool habitats.

<u>Comment 29:</u> Page B-6, <u>Vegetation and Wildlife</u>. Mitigation measures necessary to reduce the impacts to less than significant should include: (1) the retention of all vernal pools; (2) revegetation with local native plants of high wildlife value; (3) establishment of a grove of blue oaks (<u>Quercus douglasii</u>) adjacent to the existing blue oak (not identified in the plant list).

The Draft EIR recommends measures to preserve the largest <u>Response:</u> vernal pool on the site, and recommends that others be preserved if practical. We feel that management options in addition to preservation are viable, particularly in the atypical vernal pools, some of which support relatively little true vernal pool vegetation. The Draft EIR recommends equal replacement of vernal pool area as part of the wetland management plan. However, the Draft EIR also identifies loss of vernal pools as a significant adverse impact that is unavoidable and irreversible. Local plants of high wildlife value should be used in areas to be managed for habitat value, and where practical elsewhere. Project objectives would not allow use of native plants in some areas, such as the proposed golf course turf. There are currently only a few (10) individual blue oak trees on the site, no grove exists. Although establishment of a blue oak grove may be biologically and aesthetically desirable, it would not be necessary to mitigate impacts on blue oaks.

<u>Comment 30:</u> The last sentence should be rewritten as follows: "Areas cleared of vegetation should be revegetated as soon as possible with local native plant species where feasible."

<u>Response:</u> Please see the previous response.

<u>Comment 31:</u> To what extent will development of the proposed North of Main Avenue Park meet the need for facilities proposed in Hansen Park?

<u>Response:</u> This park would be a neighborhood park located at the Robla School. It could include tennis courts and softball fields, but would not be

capable of providing the range of recreational opportunities associated with a regional park.

<u>Comment 32:</u> What is the feasibility of acquiring all or part of the two parcels immediately east of Hansen Park? Since both of these parcels are substantially within the floodway, their potential for private development is limited. The addition of fifty or more additional acres upon which the proposed facilities could be located might substantially mitigate the environmental impacts to less than significant if the project is properly designed.

<u>Response:</u> These parcels are currently in private ownership, and are designated for urban land uses (1 dwelling unit per 0.5 acres). The City currently has no plans to acquire these parcels and no funds allocated for this acquisition. These parcels could provide opportunities to design a park with less wetland fill and less impact on biotic resources.

Sacramento Audubon Society

<u>Comment 33:</u> One thing the DEIR needs is a map showing what is there now so that any proposed development can be more easily evaluated according to which natural features will be lost and which will be saved. The detailed description of the site should make reference to exact locations on the map so that the findings can be checked.

<u>Response:</u> A map has been prepared showing the vegetation and habitat types present on the site (Exhibit 1). The designations on the map correspond to those used in the Draft EIR.

<u>Comment 34:</u> The bird list is not complete. For the record, the following birds not on the list were sighted on Hansen Ranch in May: Black shouldered kite, Green-backed heron, California quail, Cliff swallow, Barn swallow, White-throated swift, Plain titmouse, Tricolored blackbird and American Avocet. Also, Burrowing owls make their homes on the property. We believe a complete bird survey should be made to insure that no significant species have been omitted.

<u>Response:</u> The bird list indicates the species observed during our field visits, and is intended to reflect typical species rather than to be an exhaustive list. The species noted in the comment are informational, and should be included in any list of avifauna at the site. Burrowing owls are on the California Department of Fish and Game's list of birds of special concern, but have no special legal status. A more complete bird survey would provide a more detailed picture of birds present on the site, but is not likely to show the presence of threatened or endangered species.



<u>Comment 35:</u> Sacramento Audubon agrees with the Arcade Creek Restoration Project proposal to preserve vernal pools and oak woodlands on the site. The three main areas of concern to Audubon are the vernal pools, oak riparian habitat and permanent wetlands. Over 96% of California's waterfowl supporting wetlands have been lost in the last 100 years. These wetlands continue to be reduced by agricultural and industrial development. A preserved and enhanced permanent marsh would provide breeding and brooding habitat, including desirable aquatic foods for nesting birds. Audubon recommends any excavation in these existing marshes at the south end of the property result in increased marsh habitat. Widening of the marsh would be desirable. This could be compatible with recreational fishing if islands were provided for breeding and shelter and most of the pond perimeter was allowed to retain marsh vegetation Enhancement should encourage the growth of more cattails among the bulrushes. This would make the marsh more attractive to birds such as the Yellowthroat and Marsh wren, two species that have suffered from habitat loss. Willows on the margins and oaks planted north of the wetlands would provide additional wildlife habitat and help screen the natural area from developed portions of the park. We would also like to draw attention to the mudflat that is not connected to the marsh at low water, but is a valuable part of the existing wetland area. The mudflat is not an attractive feature but it is a food source for American avocets and other shore-birds. If this area cannot be preserved, another should be established within the wetland zone if possible.

<u>Response:</u> We concur with this comment. The Draft EIR recommends development of a detailed wetlands management plan intended to replace wetland habitat values lost as a result of the project. These habitat values include nesting and brooding waterfowl, and the other features described in the comment would be biologically desirable.

<u>Comment 36:</u> We support the DEIR suggestion to survey the wetland for the Giant garter snake, which is listed in California as a rare species. The DEIR notes that no garter snakes were actually seen however the consultants are correct to assume they are there. Two garter snakes were seen on May 26th.

<u>Response:</u> The snakes observed may have been giant garter snakes or members of several other species. LSA staff has observed unidentified garter snakes on the project site since preparing the Draft EIR. The site appears to contain habitat suitable for this state-listed threatened species, and should be surveyed to determine its status on the site.

<u>Comment 37:</u> The proposed placement of a trap and skeet facility and playing fields north of the wetlands would result in excessive noise and crowds adjacent to the natural area. Some birds may continue to use the area

but find it unsuitable for breeding. Efforts at Kesterson to keep birds away with loud noises have demonstrated that ducks and geese can be driven from an area by this method of hazing. A low intensity alternative could allow for activities more appropriate for this location such as golf, tennis or picnicking

<u>Response:</u> The Draft EIR notes that high levels of human activity, including the proposed trap and skeet range, would result in the numbers of wintering waterfowl being reduced to a small number, and that nesting waterfowl would be subject to high disturbance levels. The proposed trap and skeet range would make replacement of existing wetland habitat values difficult.

<u>Comment 38:</u> As the DEIR states, Section 404 of the Federal Water Pollution Control Act requires the City to obtain a permit before any alterations can be made to the wetlands. Sacramento Audubon will follow closely this permitting process. We support the opinion of the DEIR that a "detailed wetland plan should be developed prior to construction to address replacement on a 1 for 1 basis of existing wetland values that are lost through grading. The requirements of the species currently on the site, particularly nesting waterfowl should be considered in the development of the wetland plan." This plan should also include analysis of water quality in the marsh and creeks and suggest ways to monitor and pinpoint pollution sources.

<u>Response:</u> The Draft EIR notes that this permit will be required, and outlines mitigation requirements needed to comply with state and federal policy. Effects on water quality are one of the factors evaluated by the Corps of Engineers when determining if issuance of a 404 permit is in the public interest.

<u>Comment 39:</u> We would like to emphasize the importance of establishing protected natural areas within the park that are connected to one another. They should not be islands surrounded by human activity. Human visitors to these areas should be encouraged to follow carefully laid out nature trails which would allow day hikers and organized educational groups access to all the nature areas.

<u>Response:</u> We concur that fragmented habitat areas would not support wildlife use comparable to existing use. The wetland management plan should include contiguous habitat areas to the degree practical, and should minimize human disturbance of these areas.

PUBLIC HEARING AT ROBLA SCHOOL, MAY 24, 1985

<u>Comment 40:</u> One or more grave sites exist on the project site, there is a tombstone dated 1927 on the site.

<u>Response:</u> This site is apparently under an oak tree, and the tombstone is no longer visible. The following mitigation measure should be added to page I-1 of the Draft EIR, to read:

3. An archeologist and knowledgable local individuals should visit the site and locate the reported gravesite. The site should be protected from disturbance if possible, or evaluated and treated in accordance with state law if disturbance is necessary.

<u>Comment 41:</u> Where would road access be provided, and how would it tie into existing roads?

<u>Response:</u> The public access road for Hansen Park would be formed by extending Kelton Way from the southern levee north along the east edge of the park. The existing intersection of Kelton Way and Main Avenue would be used.

<u>Comment 42:</u> Residents of the area indicated that they did not support inclusion of a neighborhood park on the north side of Hansen Park, and requested aesthetically pleasing security fencing along the north edge of the park. The north side of the park site is often used for impromptu parties, creating a public nuisance in the area.

<u>Response:</u> This comment is informational, indicating the desires of the residents rather than commenting on the EIR. No further response is necessary.

<u>Comment 43:</u> Questions were raised regarding the relationship of fill placed on the site and flooding in the area.

<u>Response:</u> Please see the response to comment 4.

<u>Comment 44:</u> Questions were raised regarding park use estimates, use of the park for company picnics and similar organized events, and the types of facilities proposed. These questions included the type of rifle range proposed, and recreational opportunities for children, such as bicycle riding areas and pools.

<u>Response:</u> The golf course would be used by approximately 135 to 165 persons per day on the average. The number of persons using other facilities in the park would depend on the facilities actually constructed (some facilities currently proposed may not be built due to environmental constraints, such as space requirements for wetlands management, or physical space constraints as described in the response to comment 48). The park would provide an opportunity for organized events such as company picnics. No rifle range is proposed. Recreational areas for children could be incorporated into the neighborhood park portion of the site, and the multi-purpose fields would provide play opportunities. Please see the response to comment 7 for a discussion of bicycle paths.

<u>Comment 45:</u> What would the peak weekend traffic be at the Kelton Way and Main Avenue intersection, particularly regarding turning movements?

<u>Response:</u> The Draft EIR notes that weekend traffic levels would probably not differ significantly from weekday traffic, as some of the uses (e.g. golf) proposed attract more use during the week than on weekends (page G-3). The draft EIR also notes that all critical intersections have significant reserve capacity, and that the existing circulation system would accommodate project traffic with no modifications (page G-3).

<u>Comment 46:</u> Would emergency vehicle access to the park be provided, and what security would be provided?

<u>Response:</u> A driveway with a gate would extend from the proposed clubhouse to Ascot Avenue, providing emergency vehicle access from the north as well as from the south via the public access road. Security at the park would be provided by the Sacramento Police Department and possibly by City Park Rangers, as discussed on page M-1 of the Draft EIR.

<u>Comment 47</u>: What is the anticipated development and phasing schedule?

<u>Response:</u> Initial plans were for ground breaking in spring, 1986. The golf course would be developed first, with other parts of the project constructed as the second phase.

<u>Comment 48:</u> What noise impacts would result from the trap and skeet range and from the rifle range? The trap and skeet range as shown in the Draft EIR does not conform to standard dimensions for a trap and skeet range.

<u>Response:</u> Please refer to the response to comment 10 for a discussion of noise generated by the proposed trap and skeet range. American Trap Association standards for a combined trap and skeet range call for stations arranged

on a 180° arc of a circle 16.5 yards in diameter, a target fall zone with a radius of 75 to 82 yards in a 90° arc, and a safety zone extending 300 yards from the shooters. A safety zone of 300 yards radius would contain small shot (#4 shot travels about 300 yards, and #7.5 shot travels about 200 yards), but would not contain large shot (#1 shot travels about 350 yards). All but three of the stations shown on the concept plan have adequate target fall zones, but none of the stations shown have adequate safety zones as shown (range 65 yards to 165 yards). Based on these dimensions, shot would fall in the maintenance area and golf course even if shot size was restricted, certainly creating a conflict with other users of the park and creating a potential safety hazard.

<u>Comment 49:</u> What is the relationship between this project and the Cherry Island Golf Course being planned by the County?

<u>Response:</u> Although both the City and the County are planning golf courses in the area, the projects are unrelated. Both the City and County are attempting to meet projected recreational needs. There are currently 15 public golf facilities within the Hansen Park primary "market area", which provide 225 holes, or the equivalent of 12.5 eighteen-hole public golf courses. The National Golf Foundation has established a guideline of one 18-hole golf course per 50,000 overall population, which indicates that the market demand for golf facilities in the Hansen Park area would support up to 22 standard golf courses at present. The National Golf Foundation has developed demand estimation techniques showing that approximately 75,000 golfers in the primary area could be expected to play 1.5 million rounds of golf per year.

COMMENTS RECEIVED ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

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Dote : April 30, 1985

Memorandum

- To : 1. Gordon F. Snow, Projects Coordinator Resources Agency
 - Dale Achondo City of Sacramento Parks and Community Services 3520 Fifth Avenue Sacramento, CA 95817

From : Department of Fish and Game

Subject: Hansen Ranch Regional Park Draft Environmental Impact Report (DEIR), City of Sacramento (SCH 84013004)

The Department of Fish and Game has reviewed the DEIR for the Hansen Ranch Regional Park. The project, which is consistent with the City's General Plan, proposes the development of a golf course and other recreational facilities on approximately 268 acres of undeveloped flood plain along Dry Creek in the northwest section of the City of Sacramento. The project site is located one mile southwest of Rio Linda.

The area contains both upland grassland with sparse tree cover and wetlands, including some vernal pools. Freshwater marsh and aquatic vegetation are found at several ponds formed in old channels and larger topographic depressions. The area is currently heavily grazed by livestock which has degraded much of the native cover. The proposed project would eliminate most of the vernal pools and some of the existing ponds through grading. The project's overall impact will result in a reduction in the number and diversity of wildlife within the 268 acres of land.

The Department recommends the mitigation measures listed on pages D4, D5, E6, and E7 of the DEIR be included in any project permit. These include water quality measures for the waterways, the preservation of the largest typical vernal pool, the preparation of a detailed wetlands management plan under the Corps of Engineers 404 Permit, the creation of a 100-foot buffer along each side of Dry Creek to preserve natural vegetation and protect fisheries values, and a survey of the marsh along Linda Creek for evidence of the State-designated threatened giant garter snake. The wetlands management plan should seek acrefor-acre replacement of wetlands and attempt to provide wildlife values equal to those currently found on the project site.

To protect fishery resources, any alteration of Dry Creek should be designed to allow passage of anadromous fish. It will be necessary to apply to the Department for a Streambed Alteration Agreement pursuant to Section 1601 of the Fish and Game Code, prior to any construction activity in the waterways. If the Department can be of further assistance, please contact Paul T. Jensen, Regional Manager, Region 2, 1701 Nimbus Road, Rancho Cordova, CA 95670, telephone (916) 355-0922.

Doutadelle Jack C. Parnell

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Jack C. Parne
 Director


SAN FRANCISCO, CALIFORNIA BA102 TELEPHONE: 415: 557-9884 T. J. JOE

Public Utilities Commission

STATE OF CALIFORNIA

April 24, 1985

FILE NO. 183-34/EIR

Dale Achondo City of Sacramento Department of Community Services 3520 Fifth Avenue Sacramento, CA 95814

Dear Mr. Achondo:

This refers to your Draft EIR for the Hansen Ranch Regional Park and Golf Course, SCH #84013004.

The staff has reviewed the report and we would again suggest that some type of barrier or fence be erected between the golf course and the railroad right-of-way, as stated in our letter of March 2, 1984. The barrier or fence would do two things: (1) it would serve as a noise barrier, mitigating that impact, and (2) it would provide a safety barrier for the park users, thus restricting them from inadvertently getting onto the railroad's right-of-way and possibly getting hurt.

Very truly yours,

WILLIAM R. SCHULTE, Supervisor Transportation Projects Section Railroad Operations & Safety Branch Transportation Division

cc: Peggy Osborn Office of Planning & Research 1400 Tenth Street- Room 121 Sacramento, CA 95814

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To

Memorandum

The Resources Agency

City of Sacramento

3520 Fifth Avenue

Assistant Secretary for Resources

Dale Achondo, Golf Superintendent

Department of Community Services

Gordon F. Snow

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Date : APR 1 5 1985

File No.:

Subject: Hansen Ranch Regional Park (SCH 84013004)

Sacramento, CA 95814 From : THE RECLAMATION BOARD

Department of Water Resources

Staff for The Reclamation Board has reviewed the Draft Environmental Impact Report (DEIR) for the subject project and has the following comments.

A major portion of the project site is located in the Dry Creek Designated Floodway and is under the Board's jurisdiction. Plans for all work in the floodway that may affect the free flow of floodwaters must be reviewed and approved by the Board before start of work. This includes, but is not limited to plans for construction, filling, excavation and the alteration of riparian vegetation, and was explained in a memorandum dated February 14, 1984 to Dale Achondo in response to the Notice of Preparation of a DEIR.

As any work in the floodway must conform to the Board's standards, the Final EIR should include a discussion of the proposed project's compatibility with these standards. For information, the project proponent should contact Mr. Ted Allen, Encroachment Control Section, Department of Water Resources, 1416 Ninth Street, Room 455-8, Sacramento, California 95814, telephone (916) 445-9225.

Thank you for the opportunity to comment.

Span

RAÝMOND E. BARSCH General Manager



CITY PLANNING DEPARTMENT 927 TENTH STREET SACRAMENTO, CA 95814 SUITE 300 TELEPHONE (916) 449-5604

May 3, 1985

Dale Achondo, Golf Superintendent Golf Division 3520 Fifth Avenue Sacramento, CA 95817

SUBJECT: DRAFT EIR FOR THE HANSEN RANCH REGIONAL PARK (M84-015)

Dear Dale;

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The City Planning Commission on May 2, 1985, approved the following comments on the subject document and directed staff to forward these comments to the Department of Parks and Community Services:

CITY OF SACRAMENTO

MARTY VAN DUYN PLANNING DIRECTOR

1. Expand the discussion of the effects of increased urban surface runoff on fish, wildlife, and vegetation. This should include unabsorbed fertilizers, petrochemical by-products, rubber particles, and various synthetic materials. Potential mitigation measures should include control of nutrient sources, bacterial concentrations, soil sediments, leaves, litter, pesticides, and other toxic substances, into Dry Creek.

2. Discuss the affects of the proposed project on on-site trees. An inventory of on-site trees (i.e., species, size, condition) including proposed protections, and mitigation for any losses, should be provided.

3. Expand the transportation section to discuss the potential for a bikeway system within the park boundaries, that would tie in with other area bike routes.

4. Discuss the following issues relating to park access:

Does the City currently have the necessary right-of-way on both sides of the proposed roadway, to develop this access? If not, discuss how and when the right-of-way will be acquired.

 Does the Department of Parks and Community Services plan on extending the park access road north over Dry Creek to Ascot Avenue? If so, discuss how the necessary right-of-way will be acquired, and when this extension is planned to take place.

5. Expand the discussion of noise to include major noise sources in the park (i.e., the trap/skeet shooting facility) and their effect on the use and function of the park.

Mr. Dale Achondo

11 6. Analyze the potential impacts of the proposed park on surrounding land uses.

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Also, attached are the written documents which the Planning Division has received concerning this Draft EIR. Please contact me at 449-5604 if you have any questions regarding these comments.

Sincerely,

Heidi Tschudin Assistant Planner

HT:lac attachments cc: M84-015



CITY OF SACRAMENTO

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OUTEPHINNMEDEFARE PUBLIC WORKS

APR 15 1995

ENGINEERING DIVISION

RECEIVED

April 10, 1985

Cliff Carstens. Senior Planner TO:

David Cullivan, Associate Civil Engineer FROM:

SUBJECT: Hansen Ranch Regional Park Draft EIR

The following are our comments on the above Draft EIR:

- On Page G-1, the fifth paragraph: The statement is made "Drivers 1. travel about 55 mph or faster along Norwood Avenue, making it dangerous to cross this road at minor, unsignalized intersections." This statement is inappropriate. The fact that drivers are traveling 55 mph does not make this a dangerous Also it may be noted that this section of Norwood Avenue road. does not experience an unusual number of accidents. This road is typical of many of the rural roads in the northern portion of the City.
- On Page G-7 under Mitigation Measures No. 2 and No. 3: It is 2. suggested that the existing configuration of Norwood Avenue and Main Avenue be changed to eliminate a number of conflict points. Again the statement "potentially dangerous" may be a little strong in this situation as the accident experience shows no difficulty at this intersection. Another point to keep in mind is that this intersection is used as a transport route for aircraft coming to and from McClellan Air Force Base. Any change in this intersection would have to accomodate the transportation of this type of vehicle. The City has developed drawings of a Typical Expanded Intersection for this location that will be built as development occurs at this location.

If you have any questions on these comments, please contact me at 449-5967.

DC: lw DC-05003

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THOMAS M. FINLEY

Engineering Division Manager

COMMENTS ON THE HANSEN RANCH REGIONAL PARK DRAFT EIR

PART 1:

NATURAL HABITAT FEATURES AND THEIR RESTORATION POTENTIAL

bу

THE ARCADE CREEK RESTORATION COMMITTEE

June 3, 1985

PERSPECTIVE

The City of Sacramento's recent experience with the Del Paso Regional Park Master Plan Implementation Program underscores the criteria for integrating active and passive use areas within a regional park. Foremost, the greater sensitivity of the passive use (natural) areas needs to be recognized. Excepting certain sites contaminated with toxic chemicals, active recreation areas can be developed upon almost any relatively level site if conflicts with surrounding property owners can be resolved. Conversly, natural habitat areas often rely upon soil and topographic features which have developed over many mellennia, eg. the hardpan soil under vernal pools or a large alluvial terrace adjacent to a stream. Mature specimens of our three indigenous oak species reguire 75 years to become large well formed trees and may live for four centuries or longer. Grassland succession requires decades even when seed sources for native grasses and forbs are nearby. To be efficient, park planning should, thus, identify existing and restorable natural habitat features before pen is put to paper for any conceptual plans.

The California Environmental Quality Act (CEQA) recognizes this need by recommending that a lead agency consult directly with any persons or organizations it believes will be concerned with the environmental effects of a project <u>prior to completing</u> <u>a draft EIR</u> (CEQA Guidlines, Section 15085-b). "Many public agencies have found that early consultation solves many potential problems that would arise in more serious forms later in the

ACRC June 3, 1985 Page 2 review process" (CEQA Guidlines, Section 15085 b,2).

The Sacramento Master Plan for Park Facilities and Recreation Services calls for aquisition of natural areas and maintenance of natural habitat in addition to setting guidlines for meeting the City's active recreation needs. The apparent conflict between active recreation development and natural habitat preservation can be resolved by: 1) Inventorying natural assets before drafting conceptual plans, 2) Mitigating loss of lees intact natural habitat to development by providing designated protection, competent management, and technically based restoration for other, ecologically functioning, natural habitat parcels. Moreover, active recreation facilities or landescaping which would degrade adjacent natural habitat is not allowed.

EXISTING AND POTENTIAL NATURAL HABITAT IN HANSEN RANCH REGIONAL PARK

Many present features of the Hansen Regional Park parcel are the result of three quarters of a century or more of management as a working ranch. During this time Dry Creek and its tributary channels were dredged (probably several times). The Natomas East Drain was constructed and the southern margin of the property enclosed with a levee, thereby increasing the extent and duration of flooding at the site. Pasture was cleared of trees, lowland sites were flood irrigated, and land south of Dry Creek leveled for agriculture. The long history of levestock graizing, mowing for hay, and agriculture (south of Dry Creek)

has prevented establishment of oak trees. Moreover, existing oak trees have been periodically or gradually removed from the site until today only a few mature trees occur away from the main and one tributary channel of Dry Creek.

<u>Pristine Features</u>: Site specific observations suggest Hansen Ranch Regional Park once supported an upland blue oak woodlandvernal pool complex and riparian valley oak woodland. The Hansen parcel is near where Dry Creek merged with the American Basin- a location where valley oaks along natural levees and upland blue oak woodlands formed an ecotone with intermittent marsh dominated by bulrushes.

The pristine Dry Creek bed possessed banks which were not as steep nor deep but wider than the current dredged channel. The main and any tributary channels meandered significantly. Creek banks were gently sloping and the channel was shallow except opposite and just downstream from pointand riffle bars. Numerous undulations occurred on the flood plain from previous creek meandering and sedimentation and erosion resulting from flood flows. Because the flood plain was wide, peak flows were not high and the riparian-upland ecotone occurred within a few feet elevation of the main channel surface. Valley oak (Quercus lobata) was the dominant floodplain tree forming forests or woodland on the hillocks near the main channel (natural levees) and woodland or savanna on the high terraces well removed from the active creek channel. Valley oak was probably sparse within swales near the main channel due to erosion but common in swales removed from this channel. Vegetation under valley

oaks was probably dominated by sedges (particularly <u>Carex</u> ssp.) while prennial grasses (particularly <u>Elymus triticoides</u>) was dominant in open areas. Traces of the floodplain hillocks and swales can be seen on the parcel south of Dry Creek and just east of the Hansen Park property line.

The high terrace-upland transition (ecotone) occurred about the base of the gently undulating hillocks north of Dry Creek whereas the current flood plain is higher due to water backing up in the Natomas East Drain (see Figure 1). The high terraceupland ecotone was typified by mixed valley oak and blue oak woodland with an understory dominated by prennial bunch grasses and annual and prennial forbs.

Gently sloping uplands were characterized by anastomosing networks of swales underlain by hardpan soils (an impervious B-horizon) which permitted seasonal ponding. These vernal pools interconnected with the smallest tributary drainages like the channel which enters the Hansen Park property from the northeast. Vernal pools in California have been the site of extensive evolution and are now the prime or sole habitat of many narrow endemic species, several of which have attained protected status through legislation. Blue oak (<u>Quercus douglasii</u>) forms woodland or savanna on the hillocks between vernal pools. Prennial grasses were the dominant understory cover with blue oak woodland-savanna.

<u>Present Features</u>: At a minimum, the surviving natural features within Hansen Regional Park include upland and floodplain fringe vernal pools, upland annual grassland with relect blue oaks which

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in prime condition for restoration to blue oak woodland, extensive floodplain annual grassland much of which is restorable to riparian valley oak woodland and savanna, a relect stand of valley oak from the origional riparian woodland, riparian corridor forestalong Dry Creek and a tributary channel, and permanently wet lowlands associated with Linda (Robla) Creek.

The upland and floodplain vernal pools possess diverse microtopography. The vernal pool complex at the northwest corner of the Hansen Park parcel is above the Dry Creek floodplain and should remain free of sediment and debris laden flood flows, even after significant urbanization of Dry Creek. (Urbanization will increase the frequency and intensity of downstraem flooding through impacting the watershed with impervious surfaces.) Vernal pool #1 (see Figure 1) is the deepest and largest upland A small culvert may have once drained most of this pool pool. but it has been plugged for decades. Vernal pool #1 is the only pool known to possess significant populations of Downingia and Alopecurus. Vernal pool #2 is connected to pool #1 via a narrow channel. Pool #2 is large but shallow and, in contrast to pool #1, is dominated by meadow barley (Hordium brachyantherum). Meadow barley is a native grass occuring if vernally wet meadows and shallow vernal pools. Downingia and Alipecurus are endemic to vernal pools. The approximate watersheis for vernal pools #1 & 2 are shown in Figure 1. Many other common vernal pool species were observed during our brief reconaissance of the area.

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Button snakeroot (<u>Eryngium vaseyi</u>) occurs about the fringes of all the upland and floodplain vernal pools and in numerous small vernal depressions throughout the upland and alluvial annual grassland. <u>Eryngium vaseyi</u> is distinguished from less common Central Valley <u>Eryngium</u> species by bract and bractlet characteristics. Each plant must be carefully examined to exclude the presence of these other less common species.

Our reconnaissance was too late and much too casual to determine if endangered or candidate endangered species (<u>Gratiola heterosepala</u>, <u>Juncus leiospermus</u>, <u>Legenere limosa</u>, several species of <u>Orcuttia</u>) were present. <u>Heleochloa schoenides</u>, an introduced grass valuable to wildlife but a direct competitor with most <u>Orcuttia</u> species occurs in the bottoms of the larger vernal pools. Numerous common vernal pool species were observed during our casual survey and we suspect many other less conspicuous species were overlooked. These pools should be protected from graizing (pool #1 was heavely graized during May, 1985) and inventoried by a vernal pool specialist before any conclusions are drawn respecting the presence or absence of endangered, candidate endangered, or rare species. Such inventory, naturally, should be timed to catch these species in keyable condition.

Well drained uplands currently support annual grassland with occasional relect blue oaks. These sites origionally supported low elevation stands of blue oak woodland. This community and the vernal pools with which it often formed a complex comprised the dominant vegetation of the low rolling hills in the Sacramento region. Today this community is

practically extinct. Because Hansen Park supports intact vernal pools and surface evidence suggests the hardpan layer remains intact throughout the uplands north of Dry Creek, this site is one of the few locations where a <u>functional</u> example of the lowland blue oak woodland-vernal pool complex could be restored.

Lands below the estimated limit of floods in pristine times (Figure 1) were vegetated with valley oak woodland or savanna except for three areas which were vernal ponding basins. Today few of origional valley oaks remain except along the main Dry Creek channel. A notable exception is the small grove of floodplain valley oaks in the western half of the parcel approximately midway between the outlets of Dry and Linda Creeks into the Natomas East Drain (Figure 1).

Heavy graizing has apparently prevented valley oaks from becomming established in the annual grassland of the floodplain. Stunted, graized sapling valley oaks do occur about the main Dry Creek channel suggesting the forest would begin to expand rapidly upon termination of domestic livestock graizing. Given the high incidence of flooding within the riparian zone and the ability of valley oak to poliferate in such sites, the Hansen Park floodplain is considered a prime site for restoration of valley oak riparian woodland and savanna.

Three vernal ponding basins also occur within the Hansen Park floodplain. Vernal Basin #3 forms a backwater inundation zone where sedimentation is slight (Figure 1). The Dry Creek

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terrace comprises a portion of the pool's primary watershed suggesting this pool was also flooded during pre-settlement times. Today the pool possess a relatively rich flora. Two vernal pool species (<u>Psilocarpus brevissimus</u> and <u>Marselia</u> <u>mucronat</u>a) occur in this pool which were not observed in the upland pools. Vernal pool #3 may have once been subjected to summer flooding from a now defunct irrigation canal which runs along the north bank of the main Dry Creek channel.

Vernal pool basins #4 & 5 are associated with a small intermittent drainage which appears to have been an integral part of a now extinct vernal pool network north of Ascott Drive. The channel now carries erratic flows of summer irrigation runoff in addition to winter flows. Basin #5 is large enough to retain and evaporate most of these summer flows. Water impoundment has triggered replacement of the deeper water vernal pool flora by marsh plants and introduced species.

Vernal basin #4 does not possess marsh species. It receives considerable flood flows and sedimentation from Dry Creek via an enlarged overflow channel. The middle and lower slopes of this vernal basin are now dominated by introduced species.

DEVELOPMENT PROPOSALS

Alternative 1, Full Development: Implementation of the conceptual site plan (Exhibit A-3) of the Hansen Ranch Regional Park draft EIR would destroy all of the vernal pools except, possibly, vernal pool #2. This pool is a shallow depression containing an important population of meadow barley - a native grass. The only intact, large, deep upland vernal pool within or near Hansen Ranch (pool #1) would be filled and/or drained to make way for the sixth fairway and a portion of fairway number seven. This act would destroy the only significant Downingia and Alopecurus populations known to occur on the Hansen Ranch parcel. Moreover, pool #1 is connected to pool *#2 and filling or draining the former pool will probably change the water regimen in pool #2. Either raising or lowering the water level in pool #2 would be likely to result in adverse impacts upon the meadow barley population. Fairway number five is adjacent to and upgradient from pool #2. There is, thus, the long term potential pool #2 will receive summer irrigation runoff from this fairway. Summer water impounding in vernal pools results in native species (many of which have restricted distributions) being replaced by wide ranging exotic species (weeds). Vernal pool #3 has a different topographic gradient and hydrology than either pools =1 or 2. This floodplain vernal pool which possess several species not found in the upland pools would be destroyed to construct the ninth and tenth fairways.

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Annual grassland, the dominant vegetation cover on both upland and alluvial sites, would be limited to a tiny parcel within the park's northeast corner (see Exhibit A-3, Appendix 1). The remaining annual grassland areas would either be converted to lawn (the multi-purpose playing fields), parking lots, tennis courts, golf practice and teaching areas, and the fairways and rough of the golf course itself. Since rough may be mowed or unmowed and will be landscaped with species which may or may not benefit locally native wildlife, we cannot anticipate any of the current environmental assets of the annual grassland would be retained. These benefits include habitat for game birds , rodents, and reptiles which are also prey for raptors, owls and small or intermediate sized furbearers like skunk, raccoon and fox. Moreover, general public access to this cover type and the open space asset it represents would be list.

The mature tree cover (mostly valley oak and Oregin ash) along the Dry Creek and tributary channels and local relect trees (mostly valley and blue oaks) in the annual grassland would be retained. However, development of the surrounding land would be insensitive to the function of the ecosystems to which these trees belong as their understories would be modified and their bordering lands developed.

Dredging Linda Creek would convert a complex of permanently wet lowlands to open water with a narrow fringe of permanently wet lowland. These lowlands are very important nesting, foraging, and overwintering areas for birds, particularly ducks and geese. The placement of a trap and skeet facility and

multi-purpose fields adjacent to the Linda Creek marshes and the Natomas East Drain would seriously degrade wildlife values within these important resources. The Natomas East Drain represents a long term open space corridor where wetlands will be maintained. Hansen Park is adjacent to this corridor and is, thus, an ideal site to provide habitat to enhance long term wildlife values in the drain.

The draft EIR is inadequate in that each of the formentioned adverse impacts of the conceptual site plan are not fully explained. We do find the draft adequately addresses the adverse impacts of project construction and development upon the already fragile fisheries within Dry Creek.

Alternative 2, Low Intensity Development: The low intensity alternative calls for a championship golf course and tennis courts. We suspect these facilities could be developed on the Hansen Park parcel without significantly degrading natural habitat values if innovative design and landscaping was utilized. The draft ELR does not present any detail for implementing the low intensity alternative. We believe one or more conceptual plans for this alternative should be developed. Toward this end we offer four potential designations for natural habitat which we suspect would meet the CEQA requirement for balancing long term environmental values with near term uses and would be compatible with the City's own guidlines respecting the purchase and preservation of natural habitat.

Figure 2a provides the overall natural habitat designation if we choose to preserve natural habitat features in areas where

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they have survived most intact and will restore with the least effort. Figure 2b would permit development of the best remaining riparian valley oak trees as part of the golf course. The valley oak riparian forest would be restored to the floodplain in the northwest quarter of the parcel. A portion of the Linda Creek marsh would be developed as fishing ponds and compensated for by developing the degraded vernal basin #4 into a permanently wet lowland entirely within the designated natural area. The principle advantage of this plan is that natural habitat is clustered into a well defined unit adjacent to the Natomas East Drain.

Figure 2c would allow development of the eastern and much of the wetern central portions of the Hansen parcel as a golf course. Riparian valley oak woodland would be restored about the relect stand and between this stand and the western Linda Creek marshes. A narrow corridor would connect the southern riparian restoration zone with the northern upland vernal pool zone. Vernal pool #3 and most of its watershed would be preserved but would be isolated within the golf course. This plan would also preserve and enhance the Linda Creek mud flats.

Figure 2d would preserve only the western third of the Linda Creek marshes but would preserve the vernal pools and provide a large riparian restoration zone in the western central area of the park. This would provide significant area for a golf course and preserve potentially forested areas close to the Natomas East Drain. A bare minimum watershed would be contoured for vernal pool #3 which would be sorrounded by the golf course.

Each of the natural habitat conceptual plans would be predicated upon use of locally native species as the ultimate landscape within the active recreation area. If there is need for fast growing shade trees we encourage the use of valley oak and white alder within the Dry Creek floodplain. Exotic species should be added to the landscape only if the following conditions are clearly specified in the implementation plan: l) Exotic trees would be retained only until native trees had attained sufficient size to provide shade, 2) Primary landscape would be attained with native species and exotics would not be allowed to compete with native species, 3) Exotic species with the ability to escape into the surrounding natural habitat areas would not be used, nor would exotics be allowed to polifferate within the active use areas.

NO PROJECT

The Arcade Creek Restoration Committee does not believe the draft EIR fully explains the no project option. No project with continued livestock graizing will prevent natural restoration of valley and blue oaks, respectively, on the floodplain and uplands. Existing relect oaks within the annual grassland will slowely disappear to produce a treeless annual grassland. If graizing is heavey the grasslands and vernal pools will also degrade. There will be obvious pressure to develop the site and the lack of natural features will encourage full development for active recreation uses at the expense of natural heritage values.

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No project without livestock graizing would permit release of a large number of valley oak saplings which have already become established in the grassland about the riparian corridor and would permit future establishment of valley oak on the Dry Creek floodplain and blue oak on the adjacent uplands. Forb densities within the annual grassland would increase as would the densities of native grasses and vernal pool species. The area would become increasingly useful to the larger wildlife species. After no more than two decades of no livestock graizing oak, grassland, and vernal pool restoration would probably be so advanced that protection of the entire area as a nature reserve would have substantial public appeal.

CONCLUSIONS

The Arcade Creek Restoration Committee does not believe the Hansen Ranch regional Park draft EIR accurately portrays either the existing or potentail natural habitat values at the project site. Alternatives to full development are hardly discussed and cumulative impacts along Dry Creek and the Natomas East Drain are not discussed at all. Considerable additional time would be necessary to provide a point by point discussion of how these deficiencies affect the adequacy of the draft EIR. In this report we have attempted to give the City a general description of Hansen Park's existing natural features, suggest how they relate to the Park's pristine features, and explain how a functioning example of the origional ecosystem complex could be restored on a portion of the site.

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A functional example of valley fringe blue oak woodland with vernal pools, adjacent valley oak riparian woodland, and permanently wet lowlands (the ecosystem complex which once characterized this part of Sacramento) has been locally extinct for some time. Restoring an example of this ecosystem complex within a portion of Hansen Regional Park would substantially increase the regions natural habitat value and enhance long term wildlife and open space values within the Natomas East Drain. This type of natural area would compensate for the loss of other areas within the park to single purpose active use development. The type of natural areas shown in Figure 2a or b would also compensate for the loss of restorable blue oak woodland to recnetly approved active recreation development within nearby Del Paso Regional Park, including the proposed sale of the eastern half of an approximate ten acre parcel north of Longview Drive. This over-all solution would provide the community with a significant upland natural area within an enhancing setting and generate needed revenue to finance both active and passive recreation projects within the City Parks System.

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Sincerely, Stuen N. Talley

Steven N. Talley, Ph.D. Plant Ecologist, ACRC





Some natural features of Hunsen Ranch Regional Park; Q.I. = Valley Oak (Quercus lobate), Q.d. = blue Oak (Quercus douglassi), P.f. = Populus fremontii

Figur.





Proposed natural habitat is shown with horizontal lines. Color features are as follows: pink = vernal pools, dark blue = permanently wet lowlands, mudflats = orange, light green = riparian trees (mostly valley oak), light blue = blue oak. Dotted lined ablut vernal pools indicate the approximate limits of existing vernal pool watersheds.



DEDICATED TO THE PRESERVATION OF CALIFORNIA NATIVE FLORA

Sacramento Valley Chapter Conservation Committee 13206 Jackson Road Sloughhouse, CA 95583 Moy ZZ, M85

Mr. Clif Carstens Sacramento City Planning Dept. 327 10th Street Sacramento, CA 35814

SUBJECT: Hansen Ranch Regional Park and Golf Course Draft EIR

Dear Mr. Carstens:

The Sacramento Valley Chapter of the California Native Plant Society is interested in projects which might significantly affect remnant stands of natural vegetation in the Sacramento area. We have only recently received a copy of the Draft EIR for Hansen Ranch development through our contacts in the Environmental Council of Sacramento (ECOS), and hope that you will consider our comments despite this late response.

It is puzzling to contemplate the apparent discrepancy between the project and the policies of the North Sacramento Community Plan Recreation Program, which features maintaining the <u>natural</u> beauty and <u>natural</u> open space and plans to preserve important wildlife habitats near Dry Creek and the Natomas East Drainage Canal. The problem seems to be in a definition of natural, which we think of as undeveloped, and the concept used by the proponents of the project which is the opposite.

We have absolutely no quarrel with the practitioners of golf, tennis, soccer, softball, shooting sports or picnickers. Our members have done or do all of them. The intrusion of the fields or facilities for these activities into natural areas appears to us to be in conflict with the Community Plan.

The alternatives section of the EIR does not address even a modest array of alternatives which could consider something less than a "championship" golf course, or "tournament-type" tennis facilities. Why, for example, are the most productive wildlife habitats (the creek and wetland) encroached upon by a picnic area and a pedestrian path?

The Vegetation and Wildlife portion of the report does not contain a statement regarding the dates on which the botanical survey was made, nor does it indicate that a special effort was made to determine that Bogg's Lake hedge-hysop did not occur. It appears to us premature to conclude this state-listed species does not occur here, because the habitat is otherwise apparently suitable. An adequate document should provide evidence that a search was made by a qualified individual at appropriate seasons to craw a reasonable conclusion no rare plants were present. We cannot agree that retention of the largest typical vernal pool would effectively mitigate for loss of others. Disruption of the hydrology and watershed would substantially alter the pool's function and probably the species mix it contains. Furthermore, the diversity in plant species between one pool and the next is a celebrated property of vernal pools. Preservation of a single pool virtually assures that several species will be lost from the often distinct flora of other pools in the project area. You would probably not accept a project which eliminated every oak from the site. You should not entertain a project which would eliminate one or more possibly much rarer species.

Despite our late comments, please put our organization on your list of contacts for this project. We plan to comment to the Corps of Engineers Regulatory Section regarding wetland vegetation concerns.

Thank you for making this document available to us through ECOS.

Sincerely,

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Earle W. Cummings, Chairperson Conservation Committee Sacramento Valley Chapter

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CITY PLANNING DEPARTMENT

MAY 2.4 1985

RECEIVED



Environmental Council of Sacramento, Inc.

June 2, 1985

Member Organizations

American Lung Association of Sacramento -Emigrant Trails Audubon Society California Native Plant Society. Sacramento Valley Chapter Capitol Bicycle Commuters Association League of Women Voters of Sacramento Modern Transit Society of Sacramento Orangevale Action Committee Planned Parenthood Association of Sacramento Sacramento County Farm Bureau Sacramento Old City Association Sacramento Toxics Alliance Sacramento Vallev **Bicycle Advocates** Save the American River Association Sierro Club, Mother Lode Chapter South Natomas Community Association Zero Population Growth

Mr. Clif Carstens Sacramento City Planning Department 927 10th Street Sacramento, CA 95814

Subject: Hansen Ranch Regiional Park Draft EIR

Dear Mr. Carstens:

I am somewhat at a loss as to where I should begin my comments on the Hansen Ranch Regional Park Draft EIR. It is difficult to contemplate a project proposal as opposed to City goals and objectives as this project is. It is equally difficult to prepare a substantive response to this Draft EIR because one of the most important sections, <u>Vegetation and Wildlife</u>, is completely lacking the qualitative and quantitative data necessary for objective analysis.

The Draft EIR states that one of the goals of the North Sacramento Community Plan is to: "Provide an adequate amount of public and private parkland and open space to meet user needs and to <u>protect</u> <u>important natural open space</u>," and that one of the objectives is to: "<u>Protect natural open space</u> <u>access through the use of appropriate design standards</u> and other resource management and planning techniques." (Emphasis added.)

If the City of Sacramento Department of Parks and Community Services was serious about these goals and objectives it could not recommend approval of either the proposed project as set forth in Exhibit A-3 or the low intensity project because these alternatives destroy significant natural heritage features, including several vernal pools and substantial wetlands.

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Clif Carstens June 2, 1985 Page Two

The Environmental Council of Sacramento recommends that the Wildlife and Vegetation section of the EIR be rewritten so 25 as to include complete documentation and mapping of the existing natural heritage features of Hansen Park. This would allow the City and the public to assess the project's impact. This assessment should be conducted by qualified plant and wildlife biologists. Frequent visits to Hansen 26 Park should be made each season so that the risk of not observing important species is diminished. The Environmental Council also recommends that two or more additional site plans be developed that would increase the amount of open 27 space and which will preserve vernal pools. A qualitative and quantitative discussion of the impact of these alternatives should be held. The Environmental Council of Sacramento will be pleased to provide technical assistance in this area.

Specific recommendations on the text of the report are as follows:

Page B-4, <u>Land Use</u>. The proposed project impact should 28 be rewritten to state: "The proposed development of Carl Hansen Park would <u>not</u> fulfill the goals and objectives of the City's land use plans for this part of Sacramento <u>because of the destruction of important natural open space</u>.

Page B-6, <u>Vegetation and Wildlife</u>. Mitigation measures necessary to reduce the impacts to less than significant should include: (1) the retention of all vernal pools; (2) revegetation with local native plants of high wildlife value; (3) establishment of a grove of blue oaks (Quercus douglasii) adjacent to the existing blue oak (not identified in the plant list).

Page C-6. The last sentence should be rewritten as follows: 30 "Areas cleared of vegetation should be revegetated as soon as possible with local native plant species where feasible."

Other questions which should be addressed are:

To what extent will development of the proposed North of 31 Main Avenue Park meet the need for facilities proposed in Hansen Park?

What is the feasibility of acquiring all or part of the two parcels immediately east of HansenPark? Since both if these 32 properties are substantially within the floodway, their potential for private development is limited. The addition of fifty or more additional acres upon which the proposed facilities Clif Carstens June 2, 1985 Page Three

could be located might substantially mitigate the environmental impacts to less than significant if the project is properly designed.

The Arcade Creek Restoration Project and two of our member organizations, the California Native Plant Society and the Audubon Society will also respond to the Draft EIR. Your response to their comments will be greatly appreciated.

Thank you for the opportunity to comment on the Hansen Ranch Regional Park Draft EIR.

J. Hurn Catt

J. STEVEN CATES, Chair Natural Areas Protection Task Force, Environmental Council of Sacramento

JSC:kc

cc: Dale Achando, Golf Superintendent, Department of Parks and Community Services

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^C/o Alta Tura 4633 Q St. Sacramento

ento CA 95819

May 31, 1985

City of Sacramento Department of Parks and Community Services Dale Achondo, Golf Superintendent 3520 Fifth Avenue Sacramento, CA 95817

Dear Mr Achondo

SUBJECT: DEIR for Hansen Ranch Regional Park and Golf Course

The Sacramento chapter of the Audubon Society has an ongoing interest in the parks of the Sacramento area. The number and diversity of birds that live in a new park are of great interest to us, but we are interested in more than birds. A new park represents an opportunity to set aside some representative habitat and preserve unique features so that the plant and animal communities that are our California natural heritage can be preserved and enjoyed by the human community.

The draft EIR has identified many of the valuable natural features on the site, but it is not complete. One thing the DEIR needs is a map showing what is there now so that any proposed development can be more easily evaluated according to which natural features will be lost and which will be saved. The detailed description of the site should make reference to exact locations on the map so that the findings can be checked. The bird list is not complete. For the record, the following birds not on the list were sighted on Hansen Ranch in May: Black shouldered kite, Green-backed heron, California quail, Cliff swallow, Barn swallow, White-throated swift, Plain titmouse, Tricolored blackbird and American Avocet. Also, Burrowing owls make their homes on the property. We believe a complete bird survey should be made to insure that no significant species have been omitted.

Sacramento Audubon agrees with the Arcade Creek Restoration Project proposal to preserve vernal pools and oak woodlands on the site. The three main areas of concern to Audubon are the vernal pools, oak riparian habitat and permanent wetlands. Over 96% of California's waterfowl supporting wetlands have been lost in the last 100 years. These wetlands continue to be reduced by agricultural and industrial development.

A preserved and enhanced permanent marsh would provide breeding and brooding habitat, including desirable aquatic foods for nesting birds. Audubon recommends any excavation in these existing marshes at the south end of the property result in increased marsh habitat. Widening page 2

of the marsh would be desirable. This could be compatible with recreational fishing if islands were provided for breeding and shelter and most of the pond perimeter was allowed to retain marsh vegetation. Enhancement should encourage the growth of more cattails among the bulrushes. This would make the marsh more attractive to birds such as the Yellowthroat and Marsh wren, two species that 35 have suffered from habitat loss. Willows on the margins and oaks planted north of the wetlands would provide additional wildlife habitat and help screen the natural area from developed portions of the park. We would also like to draw attention to the mudflat that is not connected to the marsh at low water, but is a valuable part of the existing wetland area. The mudflat is not an attractive feature but it is a food source for American avocets and other shorebirds. If this area cannot be preserved, another should be established within the wetland zone if possible.

We support the DEIR suggestion to survey the wetland for the Giant garter snake, which is listed in California as a rare species. The DEIR notes that no garter snakes were actually seen however the consultants are correct to assume they are there. Two garter snakes were seen on May 26th.

The proposed placement of a trap and skeet facility and playing fields north of the wetlands would result in excessive noise and crowds adjacent to the natural area. Some birds may continue to use the area but find it unsuitable for breeding. Efforts at Kesterson to keep birds away with loud noises have demonstrated that ducks and geese can be driven from an area by this method of hazing. A low intensity alternative could allow for activities more appropriate for this location such as golf, tennis or picnicing.

As the DEIR states, Section 404 of the Federal Water Pollution Control Act requires the city to obtain a permit before any alterations can be made to the wetlands. Sacramento Audubon will follow closely this permitting process. We support the opinion of the DEIR that a "detailed wetland plan should be developed prior to construction to 32 address replacement on a 1 for 1 basis of existing wetland values that are lost through grading. The requirements of the species currently on the site, particularly nesting waterfowl should be considered in the development of the wetland plan." This plan should also include analysis of water quality in the marsh and creeks and suggest ways to monitor and pinpoint pollution sources.

In summary, the Sacramento Audubon Society sees the preservation of the permanent wetland area and the oak riparian areas of the park as approximately equivalent in their significance. Preservation of the vernal pools may be a higher priority due to their even greater scarcity. These comments have not detailed the significance of the vernal pools and the oak riparian areas because the comments of the Arcade Creek Restoration Project do this very well. We endorse the suggestions and recommendations of the ACRP. We would like to emphasize the importance of establishing protected natural areas within the park that are connected to one another. They should not be islands surrounded by human activity. Human visitors to these

page 3

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areas should be encouraged to follow carefully laid out nature trails which would allow day hikers and organized educational groups access to all the nature areas.

We would like to encourage the city to extend its stewardship by guaranteeing the integrity of the representative habitats found at Hansen Ranch today. In light of anticipated development in the northwest section of Sacramento, these natural features, valuable as they are today, can only become more precious.

Thank you for considering our comments.

Sincerely

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Alta Tura Conservation Chair Sacramento Audubon Society

Hansen Ranch Regional Park Draft EIR

prepared by: City of Sacramento Department of Community Services Golf Division

technical assistance from: Larry Seeman Associates Goodrich Traific Group

MARCH 1985 SCH #84013004



CITY OF SACRAMENTO

DEPARTMENT OF PARKS AND COMMUNITY SERVICES

GOLF DIVISION

3520 FIFTH AVENUE

SACRAMENTO, CA 95817

DALE ACHONDO

GOLF SUPERINTENDENT

March 22, 1985

Interested Persons:

SUBJECT: Draft EIR for the Hansen Ranch Regional Park and Golf Course

The Parks and Community Services Department is forwarding this document for review and comment to all agencies, organizations, and interested persons indicated on the enclosed distribution list. Reviewers should focus on the comprehensiveness and accuracy of the EIR in discussing possible impacts upon the environment, ways in which adverse aspects might be mitigated, and alternatives to the project.

This document is being circulated for a 45 day reveiw period; consequently, comments should be received by the Parks and Community Services Department <u>N'T LATER THAN 5:00 p.m. May 2, 1985</u>. The Sacramento City Planning Commission will consider this document at their meeting on <u>May 2, 1985</u>, at 5:30 p.m. in the Council Chamber of City Hall, 915 I Street, Sacramento, California. Persons commenting on this document are urged to submit written comments to this office prior to the public hearing. Written comments and oral testimony submitted at the public hearing will be incorporated into the Final EIR. This draft EIR will also act as part of the Final EIR unless substantial changes are made. Comments on this draft document and replies will be sent to those who comment; therefore, it is requested that you keep this document. The draft EIR, plus an addendum consisting of comments and responses and any additional information, will constitute the Final EIR.

A copy of this document has been forwarded for public review to the following libraries: Carmichael, Central (downtown), Del Paso, Martin Luther King, North Sacramento, Hagginwood, and to the CSUS Science/Tecn Library. In addition, a copy may be reviewed or obtained at the Department of Parks and Community Services.

If you have any questions regarding this Draft EIR, please contact me at 449-5329 or Clif Carstens at 449-5604.

Sincer

DALE ACHONDO, Golf Superintendent

Sacto. Area Council of Govts. Exec. Director P.O. Box 808 Sacramento, Ca. 95804

Regional Transit P.O. Box 2110 Sacramento, Ca. 95810 Attn: ,Hinda Chandler

Housing & Redevelopment P.O. Box 1834 Sacramento, Ca. 95809 Attn: Agency Clerk

Modern Transit Society P.O. Box 981 Sacramento, Ca. 95805

Sacramento Ed of Realtors P.O. Box 160446 Sacramento, Ca. 95816 Attn: Collette Johnson

District Manager P.O. Box 7444 Sacramento, Ca. 95826 Atto: Pacific Gas & Electric Co.

Sacto. Bldg Industry Assoc. 2211 Royale Road Sacramento, Ca. 95815 Actn: Vince Latino

Lung Association 909 12th Street Sacramento, Ca. 95814

Pacific Telephone Company 2760 Watt Avenue, Room 2135 Sacramento, Ca. 95821

Del Pasa Heights School Dist. 575 Kesner Avenue Sacramento, Ca. 95838 Grant Union High School Dist. 1333 Grand Avenue Sacramento, Ca. 95838

Del Paso Heights NOP/PAC c/o Evelyn Dooley 1142 Grand Avenue Sacramento, Ca. 95838

Robla School District 5248 Rose Avenue Sacramento, Ca. 95838

So. Natomas Community Assoc. P.O. Box 15362 Sacramento, Ca. 95813

North Sacramento School Dist. 670 Dixieanne Avenue Sacramento, Ca. 95815

Builders Exchange of Sacto. P.O. Box 1462 Sacramento, Ca. 95807 Attn: Harry Arnold

Sacramento Metropolitan Chamber of Commerce P.O. Box 1017 Sacramento, Ca. 95805 Attn: George Cope

Bldg & Const Trades Council 2245 Floring Road Sacramento, Ca. 95822 Attn: Al caples

SMUD P.O. Box 15830 Sacramento, Ca. 95813 Attn: Paul Olmstead

Capitol Bicycle Comm. Assoc. c/o Jim Saetge 8540 Naphi Way Fair Oaks, Ca. 95623 Audobon Society c/o John Anderson 6230 Coyle Carmichael, Ca. 95608

Env. Council of Sacramento c/o Lung Association 909 12th Street Sacramento, Ca. 95814

Sierra club Conservation Committee Sacramento Valley-Sierra Grp. P.O. Box 1335 Sacramento, Ca. 95807

SARA P.O. Box 19496 Sacramento, Ca. 95819

Native American Heritage Comm. 1400 10th Street, Room 200 Sacramento, Ca. 95814

Sacto. Apt. Associaition, Inc. 1330 21st Street, Ste. 104 Sacramento, Ca. 95814 Attn: Betty Gwiazdon

North Sacramento Chamber of Commerce 1201 Del Paso Blvd. Sacramento, Ca. 93815

Sacramento City Council City Hall, Room 205 915 I Street Sacramento, Ca. 95814

Sacramento City Planning Commission 927 10th Streat, Suite 300 Sacramento, Ca. 95814

Walter J. Slipe City Manager City of Sacramento
Mel Johnson Engineering Department City of Sacramento

James H. Bloodgood Traffic Engineering Division City of Sacramento

Officer J.A. Barclay Police Department City of Sacramento

Chiaf Robert McGrath Fire Department City of Sacramento

Marty Van Duyn Planning Division City of Sacramento

James P. Jackson City Attorney City of Sacramento

Rob Richards Sac Public Library System TODD Frenklin Blvd. Sacramento, Ca. 95823

Carmichael Region Library 5605 Marconi Avenue Carmichael, Ca. 95608

Sacramento Central Library 828 I Street Sacramento, Ca. 95814

Del Paso Branch Library 115 Grand Avenue Sacramento, Ca. 95838 Martin Luther King Region Library 7340 24th Street Bypass Sacramento, Ca. 95822

North Sacramento Branch Library 492 Arden Way Sacramento, Ca. 95815

Hagginwood Branch Library 3271 Marysville Blvd. Sacramento, Ca. 95815

The Library-Science/Tech. California State University 2000 Jed Smith Orive Sacramento, Ca. 95819 Attn: E. Heaser

Sacramento Bee City Desk P.O. Box 15779 Sacramento, Ca. 95813

Sacramento Union City Desk 301 Capitol Mall Sacramento, Ca. 95812

Supervisor Ted Sheedy 700 H Street, Room 2450 Sacramento, Ca. 95314

Sacto. Co. Planning Dept. 827 7th Street, Room 120 Sacramento, Ca. 95814 Attn: Sue Ziegler

Sacramento Co. Recreation/ Parks 3701 Branch Center Road Sacramento, Ca. 95827

Sacramento County Environmental Section 827 7th Street, Room 101 Sacramento, Ca. 95814 Attn: Al Freitas Sacramento County Environmental Health Agency 3701 Branch Center Road Sacramento, Ca. 95827

County of Sacramento Water Resources Division 827 7th Street, Room 301

County Dept. of Airports 6968 Airport Blvd. Sacramento, Ca. 95837 Attn: Larry E. Kozub

Air Follution Control District, Room 219 3701 Branch Center Road Sacramento, Ca. 95827

Office of Planning & Research Clearinghouse, Room 120 1400 10th Street Sacramento, Ca. 95814 Attn: Peggy Osborne

Air Resources Board Regional Program Division P.O. Eox 2815 Sacramento, Ca. 95812

Calif. Dept. Parks & Rec. Cultural Resources Section c/o Francis A. Riddell P.O. Box 2340 Sacramento, Ca. 95811

Calif. State Water Quality Cont. 3d. c/o William Crooks 3201 "S" Street Central Valley Region Sacramento, Ca. 95816

Caltrans Div. Highways c/o Brian J. Smith Environmental Branch Chief P.O. Box 911 Marysville, Ca. 95901

Mr. 8. Miller Department of Transportation Div. of Aeronautics 1120 N Street Sacramente, Ca. 95814 C/O Marty Mercado 1629 S Street Sacramento, Ca. 95814

Dept. of Health Services c/o Lerome S. LUkas 2151 Berkeley Way Berkeley, Ca. 94704

Federal Aviation Admin. McClellan Rapcon 5839 22nd Street Rio Linda, Ca. 95673

Sob Wahlgren 285 2nd ABG/DEEX McClellen AFB, Ca. 95652

Relcamation Dist. #1000 1633 Carden Highway Sacramento, Ca. 95833

Board of Trustees American River Flood Control P.O. Box 2511 Sacramento, Ca. 95811

Pacific Gas & Electric Co. M.R. Ameria P.O. Box 7444 Sacramente, Ca. 95826

John P. Kerns City of Police 813 6th Street Sacramento, Ca. 95814

LSA 2606 Eight Street Berkeley, Ca. 94710 Attn: Lori Froehlich

Department of Fish & Game 1701 Nimbus Road, Suite A Rancho Cordova, Ca. 95670 Attn: Paul T. Jensen Waste Removal Division 927 10th Street, Suite 200 Sacramento, Ca. 95814 Attn: Reginald Young

Office of Planning & Research 1400 Tenth Street Sacramento, Ca. 95814 Attn: Bruce Walters

Department of the Army 650 Capitol Mall Sacramento, Ca. 95814 Attn: George C. Weddell

Public Utilities Commission California State Building San Francisco, Ca. 94102 Attn: William L. Oliver Railroad Operations & Safety Branch

Department of Health Services 2151 Berkeley Way Berkeley Ca. 94704 Attn: Jerome S. Lukas

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PROJECT DESCRIPTION AND OBJECTIVES

PROJECT LOCATION

The project site is located on approximately 268 acres of undeveloped floodplain in the northwest section of the City of Sacramento. The Sacramento City limits adjoin the north side of the project site. Interstate 80 is approximately one mile to the south of the site, and Intertate 5 is approximately three miles to the west. Exhibit A-1 shows the regional location of the property.

The western boundaries of the site are formed by the Western Pacific Railroad tracks and the Natomas East Main Drainage Canal. Ascot Avenue extends along the site's northern boundary and the southern boundary runs along the levee and extends east from the drainage canal to a point adjacent to Kelton Way. The project site boundaries are shown in Exhibit A-2.

PROJECT DESCRIPTION

The Hansen Park site would be developed with various recreational facilities. The location of these facilities is illustrated in Exhibit A-3. The majority of proposed development at the site would be comprised of an 18-hole championship golf course. The course would include a two-lane roadway built to City standards that extends north from Main Avenue at Kelton Way into the eastern portion of the site to the proposed clubhouse; a practice range including two practice bunkers in the eastern portion of the site; a practice area located just east of the proposed clubhouse; automobile and pedestiran bridges that provide access over ponds and creeks on the site; and cart paths.

A community-type clubhouse containing a restaurant/snack bar, cocktail lounge, golf/tennis pro shop, etc. would be constructed in the eastern portion of the site. A tennis area containing 24 tournament-type tennis courts is also proposed for this area. A parking area would be located just south of this development. Another parking area would be constructed near the softball and soccer fields.

Other recreational facilities planned for the park site include: a pistol range and a trap/skeet shooting facility in the southwestern portion of the site; two softball and two soccer fields to the east of the above two facilities; three picnic areas located near the soccer and softball fields, and next to the creek near the eastern boundary of the site; a future neighborhood park in the northeast corner of the site; and two children's play

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SOURCE: RHAA, Revised Nov. 1984.

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areas, one near the neighborhood park and the other next to the picnic area near the creek.

A pedestrian path would run from the neighborhood park in the northeast corner of the site, down along the eastern boundary and west along the wetland areas in the southern portion of the site.

PROJECT OBJECTIVES

The proposed development of Carl Hansen Park would fulfill the goals and policies of the City's land use plans for this portion of Sacramento. The principal planning instrument for the North Sacramento area is the North Sacramento Community Plan. The Plan's goals and objectives for parks and open space are:

- Goals: Provide an adequate amount of public and private parkland and open space to meet user needs and to protect important natural open space.
 - Make parks safe.
- Objectives: Provide safe and adequate park facilities and services within convenient distance of North Sacramento residents.
 - Protect natural open space access through the use of appropriate design standards and other resource management and planning techniques.
 - Identify revenue sources and program that can help finance additional improvements for recreational facilities, parks and open space.
 - Provide facilities and/or services that deter criminal activity or minimize its potential.

The conceptual plans for the regional park achieve these aims through the provision of a variety of recreational opportunities for the entire City of Sacramento.

The purpose of a regional park is to provide a wide range of improvements usually not found in local community or neighborhood facilities. For the Sacramento area, the location would serve an area within a 30-minute driving time which contains approximately 50,000 persons or more. The size is gener-

A-5

ally larger than 100 acres. In addition to landscaping, improvements may include restrooms, parking, community building, golf course, marinas, amusement area, zoo and nature areas. The standard for this type of park is five acres per thousand persons.

In addition to the above goals and objectives, the North Sacramento Community Plan provides several specific policies to ensure the implementation of the Plan's Recreation Program. Relevant policies would include:

- Continue to require parks as per the Community Plan and the Master Plan for recreation and open space.
- Investigate alternative revenue sources to fund park development, operation, and maintenance; and study the feasibility of reinstituting the park ranger program to reduce potential crime.
- Make every attempt to retain and preserve existing, mature trees on recommended park sites.
- Time site acquisition and improvements wherever possible to coincide with development of the surrounding area.
- Continue to coordinate park development and planning with the Bikeway Master Plan.
- Encourage maintenance districts to explore all alternatives to maintain the natural beauty and wildlife habitats of creeks and drainage canals before making necessary improvements.
- Make every effort to preserve important natural open spaces and wildlife habitats near Dry Creek, Arcade Creek, the Natomas East Drainage Canal, and the American River, and south of Woodlake Park along the creek.

SUMMARY UF FINDINGS

This section contains a brief project description, a short discussion of project alternatives, a summary of project impacts and mitigation measures, and a number of impact sections required by the California Environmental Quality Act.

SUMMARY PROJECT DESCRIPTION

The Hansen Park site would be developed with various recreational facilities. The majority of proposed development at the site would be comprised of an 18-hole championship golf course. The course would include a two-lane roadway built to City standards that extends north from Main Avenue at Kelton Way into the eastern portion of the site to the proposed clubhouse; a practice range including two practice bunkers in the eastern portion of the site; a practice area located just east of the proposed clubhouse; automobile and pedestrian bridges that provide access over ponds and creeks on the site; and cart paths.

A community-type clubhouse containing a restaurant/snack bar, cocktail lounge, and golf/tennis pro shop would be constructed in the eastern portion of the site. A tennis area containing 24 tournament-type tennis courts is also proposed for this site. A parking area would be located just south of this development. Another parking area would be constructed near the softball and soccer fields.

Other recreational facilities planned for the park site include: a pistol range and a trap/skeet shooting facility in the southwestern portion of the site; two softball and two soccer fields to the east of the above two facilities; three picnic areas located near the soccer and softball fields, and next to the creek near the eastern boundary of the site; a future neighborhood park in the northeast corner of the site; and two children's play areas, one near the neighborhood park and the other next to the picnic area near the creek.

A pedestrian path would run from the neighborhood park in the northeast corner of the site, down along the eastern boundary and west along the wetland areas in the southern portion of the site. SUMMARY OF PROJECT ALTERNATIVES

The following sections provide a general description of the alternative development potentials for the Hansen Ranch Park site. For the purposes of this EIR, the City has considered one other alternative in addition to the proposed plan and the No Project scenario. This alternative plan for land uses on the project site are described below.

A comparative evaluation between the effects of the proposed plan and the impacts of the alternatives is presented in this summary. Mitigation measures proposed as part of the project and by the consultant are also listed.

No Project Alternative:

The No-Project Alternative implies that the North Sacramento Community Plan would not be implemented as presently proposed. The Hansen Ranch site would probably remain in agricultural use until some future time when development could occur. The grading effects, runoff control, traffic increases, associated noise, vegetation removal and increased service demands would not occur within the immediate future.

The postponement of project development would also have implications for the recreational needs of the North Sacramento Community and the City as a whole. The current need for recreational facilities in the North Sacramento area would remain unmet. Existing facilities at Haggin Oaks and the Del Paso Heights area would experience increasing demand for use and possibly expansion of facilities to accommodate new recreation needs. As usage of existing recreational facilities expands, there will be increasing pressure to develop the Hansen Ranch Park site.

Low Intensity Alternative

This alternative assumes that levels of development would be limited to the development of a golf course and tennis courts only. It specifies reductions in most classes of land uses. Other recreational uses would occur at the same level as proposed by the Community Plan.

In general, the low intensity alternative would lessen the effects of development upon physical conditions at the site to a limited extent. The overall reductions in land used for this alternative would not reduce the scale of effects caused by development.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Exhibit A presents a summary of the environmental impact of the Hansen Ranch Golf Course and Regional Park, lists mitigation measures for significant impacts, and compares the impacts of the two alternatives to those of the proposed project. The appropriate sections of the text following this section present detailed discussions of these impacts and mitigation measures.

B-3

SUMMARY DESCRIPTION AND IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Description and Impacts of the Proposed Project Low Intensity No Project

BENEFICIAL IMPACTS

Land Use

The proposed development of Carl Hansen Park would fulfill the goals and policies of the City's land use plans for this part of Sacramento.

The purpose of the regional park is to Same as proposed project, provide a wide range of improvements not found in local community or neighborhood facilities.

Hydrology

The plans for the regional park include wetlands, fishing ponds, and retention basins to store flood flows from Dry and Robla Creeks,

Transportation

Recreational development north of Main Avenue will not cause adverse traffic effects.

Public Facilities and Services

The regional park will provide additional recreational facilities for both local neighborhoods and the City as a whole. This alternative partially achieves the land use goals of the City through the provision of golf course and tennis courts.

Flood flows would continue to collect in the southern part of the site and in constructed storage ponds on the northern portion of the park.

Same as proposed project.

This alternative would provide benefits similar to the project proposed but to a more limited extent. This alternative would provide no new recreational facilities, but would allow for open space and passive recreational uses on the park site.

The undeveloped park site would contribute to cumulative levels of open space but would not provide unique recreational opportunities.

Storm flows would pond on the project site under existing conditions, i.e., with only the levee along the southern boundary to control flows.

This alternative will result in no project-induced traffic increases.

There would be no new recreational benefits resulting from this alternative.

SUMMARY IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

(Continued)

· , 1 · · ·	Mitigation Measures		· • •
Description and Impacts of	Necessary to Reduce Impacts to Less than	Description of Alterna Proposed	tives Compared with the Project
Proposed Project	a Significant Level	Low Intensity	No Project

POTENTIALLY SIGNIFICANT ENVIRONMENTAL EFFECTS

Geology and Soils

Disturbance of soils and clearing of vegetation during construction could cause significant erosion and sedimentation problems.

Hydrology and Water Quality

Site preparation would entail grading throughout the property and, consequently, potentially significant increases in the amount of sediment in surface runoff.

Robla Creek channel. Preliminary drainage studies indicate adequate ponding area on-site, but a detailed drainage plan showing specific flood control and storage structures should be prepared as part of engineering improvement plans. Erosion control measures proposed in the preliminary conceptual drainage plan for the site should be implemented to minimize stream sediment loads. Grading should occur during the period of least rainfall.

Grading should be conduc-

is minimal (May to Octo-

ber). Eroded streambanks

should be stabilized during construction. Devel-

opment, including pond excavation and vegetation removal should not occur within 100 feet of Dry Creek. A sediment control plan should be formulated

for construction within the

ted when erosion potential

Same as proposed project.

Eroded streambanks should be stabilized to control sedimentation on the lower portions of the site.

Same as proposed project.

Streambank stabilization should be implemented to reduce creek sediment loads. រី

SUMMARY IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

(Continued)

Mitigation Measures Necessary to Reduce Impacts to Less than

Description of Alternatives Compared with the Proposed Project Low Intensity No Project

Proposed Project Vegetation and Wildlife

Description and Impacts of

The project would eliminate or degrade some significant vegetation and wildlife habitat. Some new habitat would be created, and a new habitat type would be introduced.

Wildlife using the site wetlands would decline in numbers and diversity. The largest typical vernal pool on the site should be protected and maintained as a vernal pool.

a Significant Level

A 404 permit should be obtained and a detailed wetland management plan should be prepared to " ensure that no net loss of habitat values occurs. This plan should identify the area, types of wetlands, areas of each wetland type, and wildlife value of the wetland types. At the minimum, the plan should include: acre-foracre replacement of vernal pools; and marsh capable of supporting use, similar to current use of the site wetlands, by wintering and nesting waterfow] and shore birds.

Same as proposed project.

No mitigation necessary.

Same as proposed project.

Wetland habitat values would remain intact. No mitigation is necessary. 4

SUMMARY IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES (Continued)

	<u>،</u> -	Mitigation Measures	
		Necessary to Reduce Description of Alternatives Compared with the	е
Description and Impacts of		Impacts to Less than the second	
Proposed Project		a Significant Level No Project No Project	

Transportation

Two locations of the existing circulation system would not accommodate project project volumes at acceptable levels of operation:

- Norwood Avenue between Bell Avenue and Silver Eagle Road;

- The Northgate/I-80 interchange off-ramp intersections would have extensive traffic backups due to limited visibility. Norwood Avenue should be widened to four lanes from Silver Eagle Road to Bell Avenue. These improvements would need to be scheduled and funded as part of the City's capital improvement program.

Preliminary analysis of 1995 volumes at Northgate/ I-80 interchange ramps indicates signals would be necessary. These improvements would need to be scheduled and funded as part of the City's capital improvement program. Same as proposed project. Same as proposed project.

Same as proposed project.

Same as proposed project.

SUMMARY IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

(Continued)

Same as proposed plan.

Same as proposed plan.

	Mitigation Measures Necessary to Reduce
Description and Impacts of	Impacts to Less than Proposed Project
Proposed Project	a Significant Level No Project No Project

Notse

New recreational development immediately adjacent to the railroad will be affected by train traffic.

The project plans alleviate railroad noise impacts upon park users through the placement of the least sensitive recreation uses near the railroad. Appropriate design measures for noise control should be incorporated into the project design. The project sponsor should also consider designing landscaping near the western project boundary to obscure views of the railroad tracks from the site.

SUMMARY IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

(Continued)

		D	escription of Alternati	ves Compared with the
Description and Impacts Proposed Project	of Other Feasible Mit	igation	Low Intensity	No Project

ENVIRONMENTAL EFFECTS CONSIDERED LESS THAN SIGNIFICANT

Geology and Soils

Seismic activity could result in minor to moderate damage. A preliminary geotechnical study should be prepared for the project when more detailed development plans are available. The study should determine the potential for seismic hazards, ground failure, and erosion as well as identify soil engineering characteristics. Same as proposed project. No additional mitigation is necessary.

Hydrology and Water Quality

The development of impervious surfaces could generate additional runoff volumes. The City will install drainage facilities to accommodate minor increases in runoff from the project site. Same as proposed project.

No mitigation is required.

SUMMARY IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

(Continued)

Description and Impacts	of				D	escription of	Alternatives Compar Proposed Project	ed with the
Proposed Project		Other Fo	easible Mi	tigation		Low Intensity		No Project
Vegetation and Wildlife								•

Plant and wildlife associated with agricultural and grassland habitats will decrease and those associated with urban areas will increase,

Some vernal pools would be eliminated by development.

habitat as possible within 100 feet of either side of Dry Creek.

Retain as much open native

The City should consider the possibility of maintaining additional vernal pools in the golf course area. Same as proposed project, This alternative would involve no loss of riparian or vernal pool vegetation and habitat.

Same as proposed project.

No mitigation is necessary.

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SUMMARY IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES (Continued)

Description and Impacts of Proposed Project	Other Feasible Mitigation	Description of Alternatives Compared with the Proposed Project Low Intensity No Project				
Climate and Air Quality						
The proposed project would increase vehicle emissions in the project area. Con- struction would generate temporary increases in dust and diesel emissions.	Standard dust control mea- sures should be implemented to minimize dust genera- tion. Transit service ex- tension to or near the park should be considered by Regional Transit.	This alternative would re- quire dust suppression procedures. Limited recreational uses at the site would probably not warrant extension of tran- sit.	No mitigation is necessary.			
Transportation						
The park would cause increased traffic volumes on the surrounding street system. <u>Noise</u>	Improvements needed to ac- commodate traffic increases include changes to the Nor- wood Avenue/Main Avenue in- tersection and separate turn lanes for project ac- cess.	Same as proposed project.	Project-related improve- ments would not be warran- ted; however, cumulative development may require similar improvements at a later time.			
Development of the park would result in exposure of users to high noise levels. The largest noise	Special noise evaluations should be performed pursu- ant to the City's Noise Element of the Sacramento	Same as proposed project.	No mitigation is required.			
levels occur along the western project boundary.	General Plan.					

EXHIBIT 8-1

SUMMARY INPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES (Continued)

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Description and Impacts of		Description of Alterna Proposed	tives Compared with the Project
Proposed Project	Other Feasible Mitigation	Low Intensity	No Project
Energy Future park development	Since public utility com-	Same as proposed project.	No new energy demands will
will require additional electrical and gas energy.	panies are required by the California PUC to serve new development, new service will be provided as devel-		occur at the site.
PUBLIC FACILITIES AND SERVI	opment occurs. <u>CES</u>		6- K
<u>Water</u>			
The proposed park develop- ment could require up to 700,000 gpd on a peak day.	Landscaped areas other than the golf course should be vegetated with native or drought resistant plants to minimize water demands.	Same as proposed project.	No new water demand would occur.
Police			
New development will re- sult in increased demand for services.	The Police Department recommends facilities with built-in burglar alarms, adequate lighting, and ap- propriate fencing for se-	Same as proposed project.	Increased patrol of the site may be necessary as the surrounding area be- comes developed.
	curity.		

SIGNIFICANT ENVIRONMENTAL IMPACTS WHICH ARE IRREVERSIBLE AND CANNOT BE AVOIDED

The implementation of the project would cause an unavoidable change in the character of the project area. The project provides for the conversion of 268 acres from extensive agricultural uses to a recreational area. The development and use of the property would result in the unavoidable impacts listed below. The list includes both impacts that would be reduced through the incorporation of mitigation measures presented in this report and changes that cannot be reversed within the life of the project.

- The project would generate increased traffic volumes on the local and regional road system.
- Increased traffic volumes would result in increased noise levels along parts of the local roadways.
- Railroad noise would affect golfers and other park users in the western part of the project site.
- Expansion of public services and facilities will be required to meet the development needs of the area. These include extension of water, sewer, and drainage capacities, new roadways, additional fire protection services, and additional financial support for human services provided by the City of Sacramento.
- The area's visual qualities will change from open and rural to urban.
- Rural-urban conflicts will occur in portions of the project area.
- Open grassland and vernal pool habitat would be eliminated.
- Additional urban pollutants would enter surface flows generated within the project area.

GROWTH-INDUCING IMPACTS

The development of Carl Hansen Park would require the extension of public roads and services to the site. The extension of municipal utilities to the property would encourage the development of residential projects adjoining the southern boundary of the park and areas to the east. It should be noted that residential project are currently planned and approved for these areas. Therefore, the park development would affect only the timing of new development and not the ultimate use of these lands.

B-13

The growth-inducing effects of the project must be viewed in the context of the land use plans for the North Sacramento Community. As stated in the North Sacramento Community Plan, new public facilities would be constructed as growth occurs. The Plan recommends the provision of services for only the amount of growth projected in North Sacramento. Thus, the utility line capacities and other services would be gauged to the ultimate build-out levels of the North Sacramento Community. When considered in this context, the regional park's primary affect would be to influence the timing of growth in the vicinity.

RELATIONSHIP BETWEEN THE SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTEN-ANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The proposed development would result in the construction of recreational uses in the project area. Urbanization would constrain future land uses and commit certain resources of the area, including soil, air and water to urban uses; nonrenewable energy resources would be committed for the maintenance and operation of recreational uses.

Implementation of the project will enhance the long-term productivity of the area by facilitating development in accordance with the City's adopted Community Plan and growth policies. Although the project may have short-term negative effects and long-term beneficial goals can be achieved with project implementation.

ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES

GEOLOGY AND SOILS

Setting. The project site is located in the Sacramento Valley, a structural trough bounded by the Sierra Nevada and Coast Mountain ranges. The trough is underlain by basement formations typical of the Sierra Nevada batholith. The basement formations have been buried by 5,000 to 10,000 feet of alluvial sediments of Cretaceous to Recent age. Recent deposits are composed of gravel, sand, silt, and clay, deposited primarily by the Sacramento River and other drainages. These deposits are generally unconsolidated and highly permeable. The lithology and minerology of these deposits are heterogeneous due to the diverse nature of parent materials in source areas. Recent river and stream channel deposits exist in sediments along the river channels and streams including adjacent natural levees.

Seismic hazards at the project site are associated with fault systems that are relatively distant from the site. The nearest known potentially active faults are the Roseville Fault, about 15 miles east of the area, the Dunnigan Fault, about 20 miles west of the site, the Midland Fault, about 23 miles to the southwest, and the Rear Mountain Fault, about 23 miles to the northeast. Active faults in the region include the Calaveras, Hayward, and San Andreas Faults, located 55, 60, and 80 miles away, respectively. Active and potentially active faults located in the region are shown in Figure C-2.

Historic earthquakes such as the 1968 Hayward, 1892 Winters-Vacaville, and 1906 San Francisco tremblors caused minor to moderate structural damage and some alarm among residents. Maximum credible earthquake magnitudes have been assigned for major faults in the area. The San Andreas Fault could produce an earthquake up to 8.25 on the Richter scale, the Calaveras Fault could produce an earthquake of magnitude 7.5, and a maximum intensity of 7.25 is expected from the Hayward Fault. The Green Valley, Rodgers Creek, and Midland Faults could produce earthquakes with 7.0 intensities. Based on predicted maximum credible earthquakes on major faults, the project site could experience shaking of intensity VI or higher on the Modified Mercali scale. Shaking of this intensity would cause minor to moderate damage and would be felt by nearly all residents (Greensfelder, 1972).

The topography of the site is relatively flat with ground elevations varying between 25 and 35 feet above sea level. There is little evidence of erosion hazard on the site. Slight erosion is occurring in places along the banks of Dry Creek, and a small channel has formed in the western portion of the site where minor gully erosion has taken place.

C-1



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Soils in the North Sacramento area have been classified by the U.S. Soil Conservation Service (1954) and the California Division of Soils (Weir, 1950). Most of the soils in North Sacramento developed on lower terraces and old alluvial plains. The SCS soil survey has identified ten different soils on the site: Madera loam, 0 to 2 percent slopes; Columbia sandy loam, occasionally flooded; Chualar sandy loam; Snelling sandy loam, 2 to 5 percent slopes; Snelling sandy loam, 0 to 2 percent slopes; Durixeralfs, leveled, 0 to 1 percent slopes; Consumes silt loam, occasionally flooded; Sailboat silt loam, wet; Rida sandy loam, 0 to 3 percent slopes; and Rida sandy loam, 3 to 8 percent slopes. Most of the soils in North Sacramento developed on lower terraces and old alluvial plains. The locations of these soils on the site are shown in Exhibit C-2.

A summary of important characteristics for soils on site is included in Exhibit C-3. In general, soils on the site are very deep with slow to moderately slow permeability. Surface runoff is very slow to slow, and erosion hazard is none to slight. Available water capacity varies but is generally high (U.S. Soil Conservation, 1954).

The SCS has also developed a Land Capability Classification system with categories I through VIII for field crops designated by Roman numerals I through VIII. The classification contains two general divisions: land suited for cultivation and other uses, and land limited in use, generally not suited for cultivation. Class I-IV soils are included in the former of the two divisions; Class V-VIII in the latter. Each soil has two classifications: one if soils are irrigated and the other if non-irrigated. Soils generally have higher ratings when irrigated. All soils on the site are in classes I-IV, whether irrigated or non-irrigated.

California law (Williamson Act) recognizes soils in Capability Classes I and II as prime agriculture land, and soils of Capability Class III can qualify as prime if their annual agricultural productivity is over \$200 per acre. Those soils with I and II classifications when irrigated include: Columbia sandy loam, occasionally flooded Chualar sandy loam, Snelling sandy loam on 2 to 5 percent slopes and 0 to 2 percent sopes, and Sailhoat silt loam, wet. These soils comprise roughly 75 percent of the site.

<u>Potential Impacts.</u> Potential damage to project structures from earthquakes depends on a number of factors, including: earthquake magnitude, distance to epicenter, depth of focus, duration and intensity of shaking, near surface soil and geologic conditions, and structure type and design. These factors can manifest themselves as surface faulting, ground shaking, ground failure, and seiches. The history of seismic activity in the project area

C-3



EXHIBIT C-3

SOIL CHARACTERISTICS

		Available		Suctor	Fracion
	Permeability	Capacity	Soil Depth	Runoff	Hazard
Madera Loam, O to 2 percent slopes	very slow	low	moderately deep	STow	Slight
Columbia sandy loam, occasion- ally flooded	moderately rapid to slow	moderate or high	very deep	Very slow or slow	none or slight
Chualar sandy loam	moderately slow	moderate to high	very deep	slow	slight
Snelling sandy loam, 2 to 5 percent slopes	moderately slow	high	very deep	slow	slight
Snelling sandy loam, O to 2 percent slopes	moderately slow	high	very deep	slow	none or slight
Durixeralfs, leveled, 0 to 1 percent slopes	slow to very slow	very low or low	shallow to moderately deep	very slow	none
Consumnes silt loam, occasion- ally flooded	slow	high	very deep	slow	slight
Sailboat silt loam, wet	moderately slow	very high	veŗy high	slow	slight
Rida sandy loam, O to 3 percent slopes	slow	low	moderately deep	very slow or slow	slight
Rida sandy loam, 3 to 8 percent slopes	slow	low	moderately deep	slow to medium	slight to moderate

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indicates that ground shaking has caused fairly minor structural damage in the project region. Damage from ground shaking occurs when earthquake vibrations are transmitted from the ground into the structures. Good building design and construction techniques could minimize damage if the maximum credible seismic ground motion is considered during project design and construction.

Ground failure could be manifested as liquefaction, differential settlement, or slope instability. Settlement and liquefaction both occur when loose, granular material is subjected to significant cyclic loading from an earthquake. The potential for liquefaction is determined by the distribution of clay-free granular particles, the depth of the water table, and soil permeability. A site-specific soils study would be necessary to determine the degree of settlement that could be expected for project structures during a seismic event. Due to the relatively level topography, slope instability hazards would not be expected on the site except on the banks of Dry Creek.

With the exception of creekbanks, the gentle slopes of the site also result in little potential for erosion. However, disturbance of soils and clearing of vegetation during construction could cause significant erosion problems. Winds could create a dust nuisance for adjacent developed areas. Water erosion could result in sediment accumulation in storm drains. The disturbance of the existing vegetation along Dry Creek by construction activities or development could cause erosion and soil instability. Construction activities in and near Robla Creek could increase sediment loads.

It is important to note that soil descriptions here are general in nature. Actual soil constraints on the site would need to be determined by on-site soils investigations.

<u>Mitigation Measures</u>. The following measures will reduce potential grading impacts to less than a significant level:

- 1. A preliminary geotechnical study should be prepared for the site prior to construction commencement. The study should determine the potential for seismic hazards, erosion, differential settlement, and liquefaction hazards, as well as identify soil engineering characteristics and provide corrective solutions if necessary.
- 2. Grading on the site should be carried out between May and October to avoid the rainy season. If grading is carried out at other times, bare ground should be stabilized regularly. Areas cleared of vegetation should be revegetated as soon as possible.

C-6

- 3. A detailed wetland plan should be developed prior to construction to address replacement on a one-for-one basis of existing wetland values that are lost through grading. The requirements of the species currently on the site, particularly nesting waterfowl, should be considered in the development of the wetland plan. A buffer zone excluding development and vegetation removal should be maintained for 100 feet on either side of Dry Creek. Eroded sections of the riverbank should be stabilized and repaired during project implementation.
- 4. A sediment control plan should be formulated for construction activities and development within the Robla Creek channel.

HYDR()LOGY

Setting. The principal drainages in the project area are Dry Creek and the Natomas East Main drainage canal. Dry Creek meanders across the subject property generally from east to west. The project site is completely within the creek's 100-year floodplain. The Natomas East Main drainage canal runs immediately west of the Western Pacific Railroad, which adjoins the western boundary of the property. Robla Creek, a minor drainage channel, crosses the southern portion of the site. The locations of these watercourses are shown in Exhibit D-1.

The Dry Creek watershed encompasses an area of 178 square miles. Dry Creek extends from the confluence of Antelope Creek and Miners Ravine Creek (near the City of Roseville) west across North Sacramento to the Natomas East Main Drainage Canal. Near the community of Rio Linda, Dry Creek enters a flocdplain and divides into two branches, which join the east of the site, and enters the Natomas East Main Drainage Canal at the western edge of the site. Flows in Dry Creek (Roseville gauging station) range from an average of 1,000 cubic feet per second (cfs) in winter and spring to a low of about 2 cfs in mid-summer. Before flows reach Rio Linda, there are a number of irrigation diversions and agricultural return flows that influence net flow. At times, the flow is almost negligible where Dry Creek joins the Natomas East Main drainage canal (Sacramento Area Consultants, 1978).

The Natomas East Main Drainage Canal extends north to south and drains into the Sacramento River-approximately one-half mile above the confluence of the Sacramento and American Rivers. The drainage canal receives natural drainage, urban runoff, treated wastewater, and agricultural return flows from a number of tributaries. The canal has a sustained flow throughout the year. Some wastewater discharges to the Natomas East Main Drainage Canal will be eliminated by the Natomas Interceptor System. The primary purpose of the canal is to supply irrigation water and provide for drainage of croplands. However, as urbanization occurs, the primary use will most likely change to a system for managing urban runoff. The canal is controlled and operated by the American River Flood Control District (ARFCD).

The project site is located within a flood hazard area. The City of Sacramento's Zoning Ordinance defines a flood hazard area as one subject to flooding based upon the expectations of a flood occurring on the average of once every 100 years or that has a one percent chance of occurrence in any single year. The boundaries of the 100-year floodplain as defined by the U.S. Army Corps of Engineers are shown in Figure 6.



Major flooding in the project area occurred in 1955, 1962, and 1967. These floodwaters flowed south along the east side of the Western Pacific Railroad to Robla Creek. In the 1962 flood, the resultant high water was within two feet of the top of the southern levee of the diversion (Federal Emergency Management Agency, 1982).

Water quality in Dry Creek is influenced by several sources, wastewater discharge from Roseville as well as runoff from agriculture. Water quality data for Dry Creek and the Natomas East Main Drainage Canal are limited to dissolved oxygen measurements made by the City of Roseville and the Sacramento Regional County Sanitation District. Dissolved oxygen levels fluctuate, depending on stream flow, wastewater flows, agricultural diversions and return flows, and other factors (Sacramento Area Consultants, 1979). Generally, they are sufficient to support fisheries and aquatic life. Both cold-water and warm-water fisheries are supported by the flows in Dry Creek and the Natomas East Main drainage canal. The upper tributaries of Dry Creek support small annual runs of king salmon and steelhead, which spawn between October and December. Downstream migration of the young salmon occurs from February to May (Sacramento Area Consultants, 1979).

Construction of the Natomas Interceptor System project, an element of the Sacramento Regional Wastewater Management Program, will result in the removal of treated wastewater from creek and canal flows. The removal of wastewater flows from Dry Creek will improve the quality of in-stream runoff in the project area.

Potential Impacts. The proposed project would require grading of the site to prevent the inundation of recreation facilities. The plans for site development are based upon flood insurance plan elevations determined by the U.S. Army Corps of Engineers. Using the data developed by the Corps, the following criteria would be applied to future development at the property.

- 1. The club house, tennis courts, maintenance area, pistol range, firing area and some parking areas would be one foot above 100-year-flood elevation (35.8);
- Access roads to the club house, maintenance area, and parking areas would be at 100 year flood elevation (34.8);
- 3. Tees, greens, soccer field, softball field, shooting area for trap and skeet range, and parking areas would be one foot above 10 year flood elevation (32.5).

The conceptual project design accommodates the primary drainage courses throughout the site.

The project proposal includes the construction of shallow ponds in the northern portion of the property and wetland areas on the southern end of the site. Materials excavated for these ponds would be used to provide floodproofing for recreational facilities. Project grading would ensure that site storage capacity for floodwaters would not be reduced below existing levels. The project could result in increased storage capacities for flooding.

The proposed development of the project site would not cause a significant increase in downstream peak flows because of the increase in impervious surface area. The amount and timing of additional runoff would depend on the extent of the impervious surfaces constructed and on the design of the storm drain system. At present, the preliminary project plans indicate approximately 7.5 acres of impervious surfaces for parking, access, and recreational uses. This is less than three percent of the site's total area and would generate negligible increases in runoff flows from the project. Also, project plans include development of storage pond areas that would accommodate flood flows from areas upstream of the property as will as the project site's runoff.

Surface runoff would collect and carry increasing amounts of urban pollutants. Site preparation (especially for the golf course area) would entail removal of vegetation for landscaping and construction. Until landscaping becomes established, there could be an increase in the amount of sediment in surface runoff. Development of this site would also introduce urban pollutants to surface runoff generated on the property. These pollutants would include unabsorbed fertilizers, petrochemical byproducts, rubber particles, and various synthetic materials. Soil particles are known to transport nutrients, pesticides, and microorganisms, all of which have substantial effects on overall surface water quality.

<u>Mitigation Measures:</u> The following measures are provided by the consultant as other feasible mitigation:

- 1. A detailed drainage plan should be prepared and submitted as part of the engineering improvement plans for the project. This detailed plan should include:
 - a. the locations and sizes of culverts for on-site tributaries;
 - b. methods of disposal for runoff from impervious surfaces;
 - c. proposed setbacks to be incorporated into the project design.

D-4


VEGETATION AND WILDLIFE

<u>Setting</u>. The site contains both upland and wetland vegetation. The wetland vegetation can be divided into several types, but the upland vegetation is a single type. Wildlife habitat types roughly correspond to the vegetation types.

The upland vegetation type on the site is annual grassland. Vegetation in the annual grassland is composed of a mixture of introduced grasses and forbs and native forbs. Common grass species in this type include foxtail, soft chess, ripgut brome, and little rattlesnake grass. Introduced forbs are represented by filaree, wild geranium, wild radish, red clover, bur clover, vetch, and bindweed. Native forbs include popcorn flower, fiddleneck, tidy tips, California buttercup, blue dicks, wally basket, butter and eggs, mule's ears, and soapplant. Valley oaks are scattered throughout the grassland. The annual grassland occupies a large part of the site, and is interspersed with wetland vegetation types.

The site contains vernal pool vegetation, a specialized wetland type. The vernal pool vegetation on the type is present both as typical vernal pools and as an atypical type. Typical vernal pools are located in topographic depressions which fill with rainwater during the winter and dry up during the spring and summer. Water does not drain from the pools because a layer of hardpan has developed under the surface soil. As the water evaporates, it becomes more saline and alkali until the pools dry up entirely. The plant species found in the pools are adapted to prolonged submergence followed by gradual drying and to the increasingly alkali and saline water. Vernal pools are also found along some of minor drainages on the northern part of the site and vernal pool vegetation is found in a band around some of the marshes. The vernal pools are atypical because water sources include rainwater, runoff. and floodwaters from Dry Creek. Although plant communities such as vernal pools cannot be listed as "endangered", the California Natural Diversity Data Base (a branch of the California Department of Fish and Game) has assigned this community a status similar to a "rare" or "threatened" plant or animal species. Typical vernal pool species include coyote thistle, smartweed, brass buttons, toad rush, downingia, mermaid's tresses, and goldfields. Some pools on the site contain spikerush and other rushes.

Vernal pools in the Rio Linda USGS quadrangle historically supported a plant listed as "Endangered" by the state of California, Bogg's Lake hedgehysop (<u>Gratiola heterosepala</u>), and a species listed as "rare and endangered" by the California Native Plant Society (CNPS, 1980) dwarf downingia (<u>Downingia</u> humilis) (Natural Diversity Data Base, 1984). The downingia, which has no legal status as rare or endangered, was found in Rio Linda in 1961, but the location has apparently been developed since then. Bogg's Lake hedge-hysop was found in a vernal pool complex at the northeast corner of Rio Linda, and this site has also been developed (Natural Diversity Data Base, 1984). Neither plant was found on the site during our field visits. Two other plants listed by CNPS as "rare but not endangered" are found in vernal pools in Sacramento County: Bogg's Lake dodder (<u>Cuscuta howelliana</u>) and Tuolumne coyote thistle (<u>Eryngium pinnatisectum</u>). No dodder was found on the site, but coyote thistle is abundant in the vernal pools. The species of coyote thistle could not be determined because the plants were not in bloom.

Freshwater marsh and aquatic vegetation are found at several ponds formed in old channels and larger topograhic depressions. A portion of Linda Creek flows through a marsh at the southern edge of the site. This marsh is dominated by bulrush, and has small amounts of cattail and rush. The ponds and marshes in the northern part of the site receive both runoff water from adjacent uplands and floodwater from Dry Creek, the latter evidenced by a band of flood debris deposited high above the pond banks. The marsh vegetation is composed primarily of rushes and spikerushes, but small amounts of cattail and bulrush are present. The permanent ponds also contain yellow waterweed and arrowhead. Some of the ponds dry up in summer, and have sandy substrates and are vegetated with cocklebur and dock.

Riparian vegetation is poorly developed on the site, and is limited to the main channel of Dry Creek and one secondary channel. The most common tree species is valley oak, with smaller numbers of black walnut, cottonwood, and willow also present. Understory vegetation consists of annual grassland species, with the exception of a few small stands of mugwort. The stream channel itself has little vegetation except for smartweed and algae in slower water.

Sandbars in old stream channels and adjacent to some of the marshes in the northern part of the site are a sparsely vegetated type. Dominant species are dock and cocklebur.

The project would be covered by new regulations published by the Corps in October, 1984. Under the new regulations, the project will require an Individual permit, while under the old, it could have been covered under Nationwide permit. A project is excluded from Nationwide permit under current regulations if more than ten acres of wetland would be adversely affected. The Individual permit will require environmental review by the Corps, and the Corps will be required to consult with the U.S. Fish and Wildlife Service and the California Department of Fish and Game under the Fish and Wildlife Coordination Act. The policies of these two agencies are to object to any project that would result in a net loss of in-kind habitat value. Under the new regulations, the project would also have to comply with EPA regulations requiring that the project be water-dependent or be located on the only practicable site with the minimum practicable fill.

The annual grassland habitat type supports a number of birds and mammals typical of this habitat type. Red-tailed hawk, ring-necked pheasant, mourning dove, yellow-billed magpie, western meadowlark, lark sparrow, Calfornia vole, an block-tailed hare (jackrabbit) are examples of typical grassland species on the site. In addition to these species, several species associated with the vernal pools and freshwater marshes can be found in the grassland. Mallards, cinnamon teal, American wigeon, American coot, killdeer, and savannah sparrow all feed or nest in the annual grassland, but are normally associated with wetland habitats.

The vernal pools support wildlife intermediate between the annual grassland and the freshwater marshes. When filled with water they support species typical of freshwater marsh, and during the summer they are used by grassland species. Savannah sparrows are more closely associated with the drying vernal pools than other habitat types.

The freshwater marshes support large numbers of waterfowl and similar waterbirds. Mallards are particularly numerous, and nest on the site. Other waterfowl seen on the site include cinnamon teal, American wigeon, and American coot. Cinnamon teal are also likely to nest on the site. These birds feed in the marsh and pond areas inside the marsh and also graze in the grass-land surrounding the marshes. Wading birds, such as great blue heron, kill-deer, and yellowlegs feed in the muddy margins of the marshes. Common snipe are found in the dense stands of rush and spikerush.

The sandbar deposits probably support nesting killdeer. Other small wading birds may also nest in these areas.

Dry Creek also provides aquatic habitat that supports anadromous fishes. Steelhead migrate through the site each year. These fish are an anadromous trout species, similar to salmon, migrating through Dry Creek past the site to spawn farther upstream. Both adult and juvenile fish pass the site. The adult upstream run occurs primarily during the months of November to January. The amount of time that juvenile steelhead spend in streams before migrating to the ocean is highly variable, so juvenile steelhead can be expected to be migrating downstream at all months of the year, but peak downstream migration happens in the spring. King salmon migrate past the site during wet years, and also spawn upstream. The adult fish migrate upstream during the months of October to January, and the young migrate downstream between January and April. The California Department of Fish and Game has authority over any alteration of stream channels under Sections 1601-1603 of the Fish and Game Code. Any alteration of a streamchannel requires a 1603 agreement with the Department. The agreement must be obtained before any work in stream channels can begin.

The aquatic and marsh habitats on the site may support the giant garter snake, which is listed as Rare by the California Fish and Game Commission. This snake is highly aquatic, and preferred habitats are densely vegetated marshes, typically cattail and bulrush marshes. The snake has been found in the Natomas West Main Drainage Canal several miles west of the site, and may also occur in the Natomas East Main Drainage Canal adjacent to the site. A tule marsh is present along a part of Linda Creek, which may be suitable habitat. No garter snakes were observed during field work. The marshes on the north side of the site are not densely vegetated, and the cattail-bulrush marsh preferred by the snake is absent.

<u>Potential Impacts</u> The project would eliminate or degrade some significant vegetation and wildlife habitat. Some new habitat would be created, and a new habitat type would be introduced.

Most of the vernal pool vegetation on the site would be eliminated. The pools along the minor drainages in the north part of the site would be filled or excavated into ponds. Other pools in this area would be filled for golf course construction. Remaining vernal pools may be adversely affected by landscaping, excess irrigation water, and runoff containing fertilizers, herbicides, and pesticides. The loss of vernal pools would be a significant adverse impact.

The freshwater marsh in the northern part of the site would be filled on the south bank and excavated into ponds on the north bank. The ponds would contain relatively little marsh and aquatic vegetation due to their depth and relatively steeply sloping banks. The marsh along Linda Creek would be expanded, but would probably consist of bulrush and cattail rather than rush, yellow waterweed, and vernal pool species. The bulrush/cattail marsh is more common and of less vegetative significance than the existing marsh in the north part of the site.

Construction in the site wetlands would require an individual permit from the U.S. Army Corps of Engineers. Permit issuance would entail joint review by the Corps, U.S. Fish and Wildlife Service, and California Department of Fish and Game.

E-4

Wildlife use of the upland parts of the site would decline. A few species that are tolerant of highly maintained habitats and high levels of human activity would remain at current levels or increase, these include mourning dove, yellow-billed magpie, and house mouse. Larger species, such as redtailed hawk, black-tailed hare, and ring-necked pheasant, would decrease due high human activity and/or a reduction in prey items. Relatively few small mammals and birds would be supported by the highly maintained grassland on the golf course.

Wildlife using the site wetlands would decline in numbers and diversity. The large numbers of wintering and migratory waterfowl that currently use the marshes and vernal pools would not tolerate high levels of human activity and would decline to a small number. Nesting wild waterfowl would be eliminated in the north part of the site, and replaced with domestic and hybridized ducks. Coot use would increase, but coot numbers would not reach the current numbers of ducks. Some nesting by wild waterfowl may occur in the expanded wetlands along Linda Creek, but disturbance levels would be high due to the more or less linear form of the wetland and the proximity of activities such as the trap and skeet range. The expanded wetlands may be used by herons and egrets and by shorebirds such as killdeer, yellowlegs, and snipe if these wetlands contain the shallow ponds, sandbars, and rush stands required by these species.

The anadromous fishery in Dry Creek would also be adversely affected by the project. A portion of the stream would be excavated into a pond, which would generate sediment and tend to increase water temperatures. Removal of riparian trees would also increase water temperatures. If a dam or other structure is used to maintain the water level in the pond, migrating salmon and steelhead may be blocked. Construction of the golf course and other facilities would generate sediments, and maintenance of the golf course would result in excess irrigation water and runoff with high levels of fertilizers, herbicides, and pesticides. Where golf course facilities are immediately adjacent to Dry Creek these contaminants would be discharged directly into the stream. If fishing access to the stream is encouraged, migrating fish may be caught by anglers.

The giant garter snake may be affected by construction if it is present in the marsh along Linda Creek. The expanded wetland in this area may improve potential habitat for this species if it contains dense cattail/bulrush stands.

A habitat type not currently present on the site would be created by excavation of ponds, primarily in the northern part of the site. These ponds would be six to eight feet deep, would be primarily aquatic habitat, and may

E-5

contain a small band of marsh vegetation around the perimeters. The ponds would be suitable habitat for warmwater fishes, and the California Department of Fish and Game has expressed interest in stocking these ponds with fish.

Landscaping in the park would also add another vegetation and wildlife habitat type to the site. The golf course turf would be most extensive, but would be less valuable than the existing annual grassland. Other landscaping in the form of trees and shrubs would be planted throughout the park. The value of this vegetation and the wildlife habitat it would provide would depend on the species used for landscaping.

Mitigation Measures The following mitigation measures are proposed to reduce potential biotic resource impacts to less than a significant level:

- 1. At a minimum, the largest typical vernal pool on the site should be protected and maintained as a vernal pool. This pool is located between the 5th and 6th holes of the golf course. Grading should not encroach on this pool, and drains should be installed to intercept excess irrigation water and runoff from these two holes before it reaches the pool's watershed.
- The project sponsor should study the possibility of maintaining additional vernal pools between holes in the golf course, as they are significant vegetatively and provide significant aesthetic value during the spring and summer.
- 3. A 404 permit will have to be obtained before construction can begin. As part of the permit application, a detailed wetlands management plan should be prepared. This plan should identify the area, types of wetlands, areas of each wetland type, and wildlife value of the wetland types. At the minimum, the plan should include: acre-foracre replacement of vernal pools; and marsh capable of supporting use, similar to current use of the site wetlands, by wintering and nesting waterfowl and shore birds.
- 4. A buffer 100 feet wide should be established on either side of the creek to protect the anadromous fishery in Dry Creek. Vegetation in this buffer should not be disturbed, and no landscaped golf course facilities should be constructed in the buffer. No ponds should be excavated in the stream channel. Activities in the buffer should be restricted to necessary erosion control and planting of riparian trees. Fishing access to Dry Creek should not be encouraged.

5. The ponds built in the northern part of the site should be stocked with warmwater fishes and opened to public recreational fishing.

E-7

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6. The marsh along Linda Creek should be surveyed for the giant garter snake during the preparation of the wetland plan; the findings of the survey should be incorporated into the wetland plan.

CLIMATE AND AIR QUALITY

<u>Setting</u>. The climate of the Sacramento area is classified as an interior valley sub-climate of the dominant mediterranean-type climate. Local climatic conditions are influenced by a marked transition from the west to east marine inflow (through the Golden Gate and Carquinez Straits) to the dominant north-south flow of the Sacramento and San Joaquin Valleys. General climatic features of the project region are characterized by moderate temperatures, infrequent rainfall, abundant sunshine, light winds and comfortable humidities. Like many areas in California, the project region is also susceptible to strong temperature inversions.

Sacramento's climate, as with all of California, is dominated by the strength and position of the high pressure cell over the Pacific Ocean near In summer, when the high is strongest and farthest north, tempera-Hawaii. tures are warm, humidities are low, and the daily incursion of the marine air into the Central Valley brings refreshing afternoon breezes and moderates any temperature extremes. Summer afternoons are in the low 90's while summer nights average in the upper 50's. In winter, when the high is weakest and furthest south, conditions are characterized by infrequent rain storms with intervening stagnant periods of cool, damp and often foggy weather. Winter days average in the low 50's with nights mainly in the upper 30's. The annual rainfall, which falls almost exclusively from late October to early May. totals 17.2 inches per year. Because much of this rainfall results from the "tail end" of the mid-latitude storms, a shift in the storm track of several hundred miles north or south can mean the difference between a year with local flooding or a drought year. Winter winds, in contrast to the repetitive summer sea breeze pattern, alternate between strong winds during storm conditions and weak winds during the intervening fair periods. When there is adequate moisture from a previous rain and the entire valley becomes becalmed during these fair weather periods, the notorious tule fogs arise and remain until they are dissipated by the next storm system.

Winds in the North Sacramento area are mainly from the south and southeast travelling up the Sacramento Valley and occasionally from the northwest to north travelling down the valley. Winds in the site vicinity originate mainly in the Bay Area, turning northward after passing over downtown Sacramento. This prevailing airflow brings diluted amounts of air pollutants from urbanized areas across the community and contributes to occasional violations of clean air standards in the North Sacramento area. The secondary flow from the northwest may bring soot particulates from agricultural burning and the winter calms may create locally elevated pollution levels during stagnation conditions, but the health effects of these infrequent events are less of a concern than the photochemical irritants that form downwind of trafficintensive development areas.

F-1

Wind data collected between 1939 and 1972 at McClellan Air Force Base, about two and a half miles east of the site, indicate a mean wind speed of 7.2 miles per hour and a 15 percent frequency of calms. The average wind speed is great enough to minimize the potential for any significant pollution stagnation. However, inversions occur in the Sacramento Valley with great frequency in all seasons, but particularly in late summer and fall. During inversions, air becomes stagnant and dispersion of air contaminants is severely limited. Although summer inversions are strong and frequent in the valley, they are generally less troublesome than those in the fall due to better ventilation conditions.

The Sacramento County Air Pollution Control District (APCD) operates a number of air quality monitoring stations which measure pollutant levels and compliance with State and Federal air quality standards. The closest station to the site is located at North Highlands - Blackfoot. Other nearby stations are located at Creekside School, El Camino/Watt, and Del Paso Manor in Sacra-A four-year summary of air quality monitoring data collected at the mento. monitoring stations are presented in Exhibit F-1. 1983 data is available only for ozone and carbon monoxide. As can be seen, frequent violations of both the ozone standard and the eight-hour carbon monoxide standard occur. The Sacramento APCD is designated a non-attainment area for these two pollutants (Gary L. Wann, personal communication). A non-attainment designation requires that a State Implementation Plan (SIP) and Non-Attainment Plan (NAP) be prepared to restore healthful levels of air quality and incorporate strict emission limitations on new sources in the non-attainment area.

An air quality concern not clearly indicated in Exhibit F-1 is that visibility in the Sacramento Valley is often significantly degraded in the late fall by agricultural burning. The total mass of the smoke particles in not so high as to significantly threaten the standard for total suspended particulates. However, the inhalable particulate level (small particles able to reach deep lung tissue) may be significant.

A similar agriculturally-related problem occurs near areas of extensive soil disturbance (cultivating, plowing, etc.) when such activities are conducted early or late in the day and the air is relatively still. When these dust particles settle out, they cause soiling of surfaces such as on cars, foliage or furniture.

The project site is within the Sacramento Air Quality Maintenance Area (AQMA). The air quality maintenance plan for the area, as revised in 1982, addresses area source controls, transportation control measures, and land use development controls to reduce air pollutant emissions. (Sacramento Area Council of Governments, 1982.) According to this plan, the North Sacramento

F-2

EXHIBIT F-1

F-3

AMBIENT AIR QUALITY MONITORING SUMMARY NEAR THE PROJECT SITE (Days Standards Were Exceeded in 1980-1983)

						Sac	crame	nto							•	
Pollutant	Standard ¹	Nort	h High	lands		Cre	eeksi	de		Sacra	mento	-		Sacram	ento	
		Blackfoot		School		Del Paso Manor		El Camino Watt								
		' 80	'81	'82	'83	' 80	' 81	'82	* 80	' 81	' 82	'83	' 80	'81	'82	'83
Ozone	1 hr > 0.10 ppm (S)	0	32	28		30	0	8		40	30					
	1 hr → 0.12 ppm (N)	0	11	8	4	8		1		9	4	9				
	Max.1-hr conc. (ppm)	.09	.18	.16	.17	.18	.06	.13		.15	.15	.15				
											_					
Carbon	1 hr <u>></u> 20 ppm (S)			0				0			0				0	
Monoxide	8 hrs >9.1 ppm (S)	0	0	0.		6	1	0		1	4	1	3	6	6	4
	Max.1-hr conc. (ppm)			9				12			14				17	
	Max.8-hr conc. (ppm)	5.5	3.9	4.9		11.8	10.4	6.3		10.3	13.3	10.9	14.3	13.5	15.1	14.1
		_		-							-					
Nitrogen	1 hr <u>></u> 0.25 ppm (S)	0	0	0						0	0					
Dioxide	Max.1-hr conc. (ppm)	.11	.08	.12						.11	.12					
	Annual Avg. (ppm)	.052	.029	.011						.044	.018					
										•	•					
Sulfur	1 hr > 0.50 ppm (S)	0	0	0				1		0	0					
Dioxide	24 hr > 0.05 ppm (S)	0	0	0					0	0	0				~ ~	
	Max.1-hr conc. (ppm)	.02	.02	•01					.02	.02	.02					
	Max.24-hr conc. (ppm)	.016	.012	.01					.012	.01	.008					
			•	-					_	~	•					
Total	$24 \text{ hrs} > 100 \text{ ug/m}^3(S)$		0	5					5	3	2					
Suspended	24 hrs > 150 ug/m ³ (N)		0	0					1	0	0					
Particu-	24 hrs > 260 ug/m ³ (N)		0	0					0	0	0					
lates ²	Number of Samples		16	58					16	59	54					1
	Max. 24-hr conc. (ug/m ³)		84	125					216	123	127					

¹ppm: parts per million; (S): State standard; (N): National standard; ug/m³: Micrograms per cubic meter. Source: California Air Resources Board, <u>Annual Summary California Air Quality Data</u>, 1980-1982. 1983 data from the Sacramento County Air Pollution Control District. area is forecast to continue to experience occasional ozone levels of 0.13 to 0.14 ppm by 1987. Other areas more directly within the Sacramento "urban plume" were forecast to have violations ranging up to 0.18 ppm compared to the standard of 0.12 ppm. Gradual improvement will continue into the 1990's with eventual attainment of the standard near the end of this century.

Because ozone standards have been continually exceeded in the Sacramento AQMA and it is uncertain as to whether the 1987 attainment deadline will be met, the Environmental Protection Agency (EPA) imposed a construction moratorium on all major sources of pollutants. This mandatory construction ban has now been lifted but could be reinstated if the planning requirements of the Clean Air Act are not fulfilled (Wayne Shijo, personal communication). For several years, the EPA had withheld funds for air programs, roadways, and new sewage treatment plants until the legislature approved a vehicle inspection and maintenance (I/M) program for ozone non-attainment areas.

Cumulative growth of population, employment, and housing and denser land use within the North Sacramento community may increase the levels of air pollutant emissions from automobiles, industrial processes and from various small, miscellaneous sources. Such increased emissions may cause locally degraded levels of air quality (microscale impacts) and may contribute to increased levels of reactive photochemical smog at downwind receptors such as Roseville and farther up the Sacramento Valley (mesoscale impacts). These effects are mitigated to a certain extent by the continued reductions in automotive emissions through retiring older, inefficient vehicles and by the mandatory inspection and maintenance program. —A certain increase in emission levels has been anticipated for the North Sacramento area in the regional air quality plans (AQP) as part of normal growth patterns. Air quality impacts are only significant if they deviate substantially from the levels already anticipated in the AQP.

Potential Impacts. Development of the proposed project would increase traffic volumes on local roadways and thereby increase vehicle emissions in the project area. Due to the nature of ozone formation it is not possible to accurately forecast ozone levels in the project area.¹ However, increases

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¹⁰zone (03) is manifested in the atmosphere as a photochemical oxidant formed from the reaction of hydrocarbons and nitrogen oxides in the presence of sunlight. Its formation is dependent upon atmospheric conditions and therefore, the amount of ozone which could be generated is difficult to calculate.

in carbon monoxide, a localized pollutant, due to the project can be calculated. For the North Sacramento Community Plan, carbon monoxide levels at three major intersections near the site were calculated using the CALINE 3 Computer Model, a dispersion model for predicting air pollutant levels near highways and arterial streets developed by the California Department of Transportation. One-hour and eight-hour carbon monoxide concentrations under worstcase meteorological conditions at these intersections with existing traffic levels, traffic levels with the project, and ultimate traffic levels from build-out of the North Sacramento area are shown in Exhibit F-2. As can be seen, the project would result in slight increases to one-hour averaged carbon monoxide levels at two of the intersections. However, assuming continued enforcement of Federal emission controls, carbon monoxide levels at two of the intersections would actually be lower in the year 2000 under buildout conditions than at present or in 1985 with project traffic. The eight-hour carbon monoxide level at the intersection of I-80 and Marysville Road is currently subject to potential violations of the Federal standard of 9 ppm. This potential would continue with the project but would diminish by the year 2000.

Total daily emissions of carbon monoxide, hydrocarbons, particulates, sulfur oxides, and nitrogen oxides from project-generated traffic and traffic generated from buildout of the proposed North Sacramento Community Plan are shown in Exhibit F-3. Increases due to the project would account for between 0.78 and 3.39 percent of the daily emissions generated from Community Plan buildout.

Current General Plan densities were used by the Sacramento Area Council of Governments in developing the Air Quality Plan and Non-Attainment Plan (NAP) for the area. The proposed project would be consistent with these General Plan densities and should therefore not interfere with attainment status.

As construction and grading occur on the project site, short-term impacts would result from dust generated and diesel exhaust emitted by construction eqiupment. Nearby residents would experience temporary discomfort from increased dust particles.

Transit service to the site is provided by Regional Transit bus route #19, which runs from downtown to Rio Linda and Elverta. The closest stop to the site is on Norwood Avenue at Main Avenue. Buses run every two hours Monday through Saturday until about 7:00 PM. There is no nighttime, Sunday, or holiday service. Because the project would be transit-accessible, there could be some reduction in automobile travel and associated emissions.

<u>Mitigation Measures</u>. The following measures are provided by the consultant as other feasible mitigation:

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EXHIBIT F-2

ROADSIDE CARBON MONOXIDE CONCENTRATIONS AT MAJOR INTERSECTIONS IN PROJECT VICINITY

			Concentration (ppm) ¹				
Intersection	Averaging Time	State Standard (ppm)	Existing Traffic	Future Traffic (with Project) 1985	Future Traffic (N. Sacramento Buildout) 2000		
Norwood/Bell	1-hr.	20	7.0	7.1	7.4		
	8-hr.	9	· 4.2	4.2	4.2		
I-80/Marysville	1-hr.	20	18.9	19.0	14.9		
	8-hr.	9	10.2*	10.2*	8.0		
I-80/Norwood	1-hr.	20	15.6	15.6	13.7		
	8-hr.	9	8.5	8.5	7.4		

¹Concentrations include background levels at 25 feet from the given intersection provided by SACOG. Calculations assume worst-case conditions of a cold winter morning rush hour with many cars recently started before they burn most efficiently, a 15 mph intersection speed on arterials, and 30 mph near the freeway interchange.

*Potential violation of standard.

EXHIBIT F-3 ESTIMATED DAILY EMISSIONS

Pollutant	1985 Emission Factorsl (grams/mile)	2000 Emission Factorsl (grams/mile)	1985 Project Emissions ² (tons/day)	2000 North Sacramento Buildout ³ (tons/day)	2000 Project Emissions as as a Percent of Buildout Emissions
Carbon monoxide	13.61	8,71	.26	21.53	· 0.74%
Nitrogen oxides	2.29	1.42	•04	1.29	2.33
Sulfur oxides	0.21	0,21	.004	0.29	1.38
Particulates	2.334	2.30 ⁴	.04	3.13	1.37
Total Hydrocarbons	1.16	0,87	.02	2.58	0.62

 $^{1}\text{Emission}$ factors are from the EMFAC 6C emission programs as provided by the Bay Area Air Quality Management District(1981). Average speed is assumed to be 40 mph.

²Assumes 2,400 trips/day from the project x 7 miles/trip = 16,800 daily project vehicles miles traveled.

³Assumes 1,210,000 vehicle miles travelled from buildout of the Proposed North Sacramento Community Plan. Projected using the California Air Resources Board's Air Quality Analysis Tools URBEMIS#1 trip making estimate model.

⁴Includes particulates emitted by auto exhaust tire wear and dust entrainment from paved roadways.

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- Standard dust control measures (e.g., watering down of soils, etc.) should be implemented to minimize dust generation during construction of the project.
- 2. The contractor should be responsible for the immediate clean up of any materials spilled on City Streets as a result of grading and hauling operations.
- 3. As grading is completed on various portions of the golf course site, they should be covered with turf or hydroseeded.
- 4. The Regional Transit Agency should consider extending bus line #19 closer to the project and/or should consider providing limited weekend service to the Park. This service would be dependent on project user demand.

TRAFFIC AND CIRCULATION

<u>Setting</u>. Regional access is provided to the site by Interstate 80, a six-lane freeway with interchanges at Northgate Boulevard and Norwood Avenue. Present traffic levels on I-80 are equal to approximately 40 percent of capacity, 1 and there are no congestion problems.²,³,⁴

Local access to the site is provided directly by Main Avenue and indirectly by Northgate Boulevard and Norwood Avenue. Main Avenue is a two-lane roadway where it crosses the east levee via a two-lane bridge. Farther east, through a rural agriculture area to Norwood Avenue, Main Avenue is a two-lane road with shoulders but no curbs. Northgate Boulevard is a four-lane arterial where it crosses I-80 and narrows to two lanes north of the interchange. Norwood Avenue is a two-lane road with shoulders but no curbs. Current traffic volumes on these roadways are well below capacity, and there are no congestion problems (Exhibit G-1).

At the I-80/Northgate Boulevard interchange, driver visibility is restricted at both the eastbound and westbound off-ramps for drivers turning north onto Northgate from eastbound I-80 and south from westbound I-80. The ramps intersect the overcrossing at the bottom of its crest over the freeway, and drivers cannot see approaching traffic over the crest.

The Northgate/Main Avenue intersection is a "Tee" type, with no north leg. All approaches are controlled by stop signs, and there are separate left-and right-turn lanes. Present—p.m. peak-hour critical approach volumes are equal to about 25 percent of the Level of Service D^5 capacity, and there is no driver delay.⁴ (See Appendix B.)

The approach volumes at the Norwood Avenue/Main Avenue intersection are also equal to about 25 percent of capacity (see Appendix B), but the configuration of this intersection makes it confusing to drivers (see Figure 8). The intersection has five legs, whereas only four are necessary. What would normally be a channelized right-turn lane for traffic turning right from east-bound Main Avenue to southbound Norwood Avenue carries opposing northbound traffic as well. Drivers travel about 55 mph or faster along Norwood Avenue⁴, making it dangerous to cross this road at minor unsignalized intersections.

¹Nominal capacity for a freeway is approximtely 1,800 vehicles per hour per lane (Caltrans District #4).

⁴Goodrich Traffic Group site survey and traffic counts, April 1984.

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²DEIR, North Sacramento Community Plan, City of Sacramento, 1983.

³Jim Bloodgood, City of Sacramento Traffic Engineer, Personal Communication, May 8, 1984.

⁵A description of service levels is included in Appendix B.



<u>Potential Impacts</u>. The proposed project would generate approximately 280 two-way trips during the p.m. peak hour on a weekday¹ (Exhibit G-2). This coincides with the highest traffic levels on the surrounding street system. The project would generate approximately 2,400 two-way trips each weekday. More traffic may be generated on weekend days, depending on the type of recreational activities offered at the site. However, it is not anticipated that the difference in traffic volumes would be significant. For example, research conducted by Caltrans indicates that golf courses generate more vehicular traffic on a weekday than on a weekend day.²

Based on the regional location of residential and business centers from which the project would attract traffic, it is estimated that about 70 percent of the total trips would use I-80 by way of the Northgate Boulevard or Norwood Avenue interchanges to or from the site. Because only a small fraction of this traffic would use the Norwood Avenue interchange, the resulting traffic increase there would not be noticeable. The remaining 30 percent of the project traffic would be generated locally to/from the east, west and north on the local street system.

Project traffic was assigned to the circulation system based on the above estimates, and is illustrated in Exhibit G-1. Project traffic could be accommodated in the surrounding circulation system and at critical intersections without requiring any roadway improvements, as there is significant reserve capacity (at least 50 percent on roadway segments and 75 percent at critical intersections) under present configurations. A two-lane road would serve as an adequate access route between Main Avenue and the site.

Projected 1995 traffic volumes resulting from buildout of the North Sacramento³ area are shown in Exhibit G-1. These traffic volumes, which include project traffic, would be about 40-50 percent higher than existing volumes. The existing circulation system could accommodate these traffic volumes at acceptable service levels with the following two exceptions:³ 1) projected traffic volumes along Norwood Avenue between Bell Avenue and Silver Eagle Road would exceed the two-lane capacity of the road, and without roadway improvements, congestion may result; 2) although projected volumes at the Northgate Avenue/I-80 interchange off-ramp intersections for 1995 would not exceed 50 percent of the nominal capacity (Exhibit G-3), the driver delay at these ramp approaches to Northgate Avenue resulting from limited visibility may cause extensive traffic backups on them. Preliminary analysis indicates that projected approach volumes may meet signalization warrants (Exhibit G-4).

¹Based on Caltrans, Institute of Traffic Engineering, and Goodrich Traffic Group experience at similar sites.

²Caltrans Trip End Generation Research Progress Report #14, July 1982. ³DEIR, North Sacramento Community Plan, City of Sacramento, 1983.

EXHIBIT G-2

PROJECT TRIP GENERATION ESTIMATE

(BASED ON CALTRANS TRIP END GENERATION RESEARCH,² I.T.E RESEARCH AND GOODRICH TRAFFIC GROUP ESTIMATES.)

Activity	Weekday Trips Daily P.M. Peak			
Golf Course 18 Hole Driving Range/Clubhouse	1000	150		
Tennis Courts (24)	400	50		
Rifle/Pistol/Trap/Skeet Range	750	50		
Other Recreational Elements	250	30		
TOTAL	2400	280		

Total Acreage = 268 Trips per acre per day = 9.0 Trips per acre per peak hour = 1.0

EXHIBIT G-3

P.M. PEAK HOUR TRAFFIC VOLUMES NORTHGATE BOULEVARD/I-80 INTERCHANGE

Location	Existing Volume	Added By Project	Total 1995 Buildout ¹ (Includes Project)
EB on ramp	340	0	480
EB off ramp	325	45	450
EB on loop	500	45	700
WB on ramp	340	45	480
WB off ramp	370	45	520
WB on loop	200	0	280

SOURCE : Goodrich Traffic Group, North Sacramento Community Plan.¹ Nominal capacity for ramps-loops is 1500 vehicles per hour (Caltrans District #4).

EXHIBIT G-4

TRAFFIC SIGNAL WARRANT PRELIMINARY TEST

HIGHEST APPROACH VOLUME PEAK HOUR, ONE WAY 1995 PROJECTED VOLUMES (INCLUDES PROJECT)

	Requi	rement	Act	Requirement Met (Both Streets)?		
Warrant	Major St.	Minor St.	Major St.	Minor St.	Yes	No
#1	500	300				
#2	750	150				
Location						
I-80 westbound off ramp @ Northgate (left-turn to southbound Northgate)			1000	400	x	
I-80 eastb (left-turn	ound off ramp to northboun	<pre>@ Northgate d Northgate)</pre>	700	300	X	

Mitigation Measures. The following measures are provided by the consultant as other mitigation:

- 1. The proposed project access road should be aligned opposite an existing northbound intersection approach such as Pell Drive in order to concentrate traffic movements at a four-leg intersection.
- 2. Separate turn lanes should be provided at the proposed project approach at Main Avenue, and a left-turn lane should be provided at the Main Avenue eastbound approach.
- 3. The existing configuration of the Norwood Avenue/Main Avenue intersection should be changed to eliminate the potentially dangerous conflict points illustrated in Exhibit G-5. One possible solution is also shown on this Exhibit.
- 4.- Preliminary analysis of the projected 1995 volumes at the Highway 80 interchange off-ramp intersections at Northgate Avenue indicates that they will meet preliminary signalization warrants (see Table D). But signals should not be installed based on anticipated conditions only.

The following measures are recommended in the North Sacramento Community Plan:

- 5. Norwood Avenue should be widened to four lanes from Silver Eagle Road to Bell Avenue.
- 6. TSM actions should be implemented by the City wherever feasible to reduce auto usage and encourage use of alternative modes. These actions should include continued efforts to upgrade and maintain the bikeway system, support for ride sharing programs and efforts to encourage mass transit usage.



NOISE

Setting. There are currently no sources of on-site noise except for some limited agricultural uses (grazing cattle). Off-site noise sources include traffic along local roadways, the Western Pacific Railroad, adjacent residential uses and nearby industrial (R&D) uses.

Local roadways affecting noise on the project site include East Levee Road to the west, Ascot Avenue to the north, and Main Avenue to the south. At the present time, traffic levels on these roadways are relatively low. Using noise guidelines specified by the U.S. Department of Housing and Urban Development (Galloway and Schultz, 1979), it is estimated that noise levels are presently less than 55 dBA $(L_{dn})^1$ beyond 600 feet of the center of East Levee Road and at existing residences along Ascot Avenue. Noise levels exceed 65 dBA (L_{dn}) within 80 feet of the center of Main Avenue. Since the site is located at least 600 feet east of East Levee Road and 800 feet north of Main Avenue, traffic noise levels on the site would not exceed 55 dBA (L_{dn}) . Projected future traffic increases on Main Avenue (see Traffic section of this report for more details) would result in a noise increase of 2 dB and noise levels would exceed 67 dBA (L_{dn}) within 80 feet of Main Avenue.

Noise receptors which are considered sensitive include residential and hospital uses. No hospital uses are located in the project vicinity. Residential uses are located along the northern project boundary and southeast of the site along Main Avenue.

The Western Pacific Railroad is located along the western project boundary. The Western Pacific track carries an average of nine freight trains per day with up to 15 trains per day during the peak summer season. About 40 percent of the railroad operations along this track occur during the night. Future railroad traffic projections were not available for this track. However, traffic levels on this track have remained steady for the past few years. Along most of the Western Pacific tracks, noise levels during average traffic conditions exceed 65 to 67 dBA (L_{dn}) within 200 feet of the tracks and 59 to 61 dBA within 500 feet. There is an at-grade crossing located approximately 800 feet south of the site at Main Avenue. Trains are required

¹L_{dn}: A day-night, time-weighted noise level.

dBA: decibels in the A-scale. It should be noted that the shielding effects of topography, vegetation or buildings or low-level background noise such as wind are not accounted for in this analysis. Therefore, these noise levels should be used for planning purposes only.

to blow their horns or whistles within 1,320 feet of an at-grade crossing and peak noise levels along this track in the crossing vicinity exceed 65 dBA (L_{dn}) within 1,200 feet. Since the site is located about 800 feet north of this crossing, such railroad noise levels affect noise conditions in the southwestern corner of the site, specifically, the area within 500 feet of the southern boundary and 200 feet of the western boundary. When railroad noise is combined with the traffic noise generated along East Levee Road, noise levels along the western project boundary would be the same as those generated by the railroad operations. Noise levels along East Levee Road are not high enough to influence noise conditions on the project site.

The Noise Element of the Sacramento General Plan (City of Sacramento, 1975) specifies noise guidelines for various land uses. Where recreational uses are proposed, noise levels below 60-70 dBA (L_{dn}) are considered acceptable and no noise attenuation measures are required. However, special studies are recommended where noise levels exceed 65 dBA and new development is discouraged where noise levels exceed 70-75 dBA (L_{dn}).

<u>Potential Impacts</u>. The proposed project would be subject to excessively high noise levels along the western project boundary. Noise levels would exceed 65 dBA (L_{dn}) within 350 feet of the railroad tracks except in the southwestern corner, where noise would exceed 65 dBA (L_{dn}) within 1,200 feet of the western project boundary and 500 feet of the southern boundary. Such noise levels would be marginally consistent with the proposed use and a special noise study would be required in this area. These excessively high noise levels (above 65 dBA) would primarily affect the southern half of the golf course located within 350 feet of the railroad tracks and the portion of the skeet/trap shooting facility that would be located in the southwestern corner of the site as noted above.

Although noise levels above 65 dBA (L_{dn}) are considered marginally acceptable based on the City's noise guidelines, the proposed recreational uses along the western boundary (golfing and trap/skeet shooting) would not be considered noise-sensitive uses. Since such activities would occur only during the daytime hours and the " L_{dn} " includes a 10-dB penalty for nighttime operation, the actual noise impact on these uses would be less. If all present train operations are assumed to operate during the daytime/evening hours and there is no 10-dB nighttime penalty, the average 24-hour noise levels (L_{dn}) would be approximately 6 to 7 dB lower than the L_{dn} noise levels which include nighttime operations and the 10-dB penalty. At these levels, noise levels would exceed 65 dBA with 100 feet of the railroad. The project boundary is located from 50 to 500 feet from the railroad tracks. In the southwest corner of the site, noise levels would exceed 65 dBA (L_{dn})

within 400 feet of the railroad tracks. Hence, marginally high noise levels would affect a much smaller area.

The proposed project would increase traffic levels along local roadways. These traffic increases would result in noise increases of up to 2 dB along local roadways (primarily Main Avenue, Northgate Boulevard, I-80, East Levee Road, Norwood Avenue and Sully Street). In general, noise increases of 3 dB are just barely detectable to most people (Bolt, Beranek and Newman, 1973). Therefore, noise increases along local roadways due to project-generated traffic would not be considered significant. No existing sensitive noise receptors would be adversely affected by project-related noise increases.

The proposed project would generate recreation-related noise associated with proposed activities. The closest sensitive receptors would be residential uses located on the north side of Ascot Avenue along the northern project boundary. Since no direct project access would be available to this roadway, project-related noise increases would primarily result from golfing activities proposed in the northern portion of the site. Because such noise is generally not annoying or disturbing, it is considered to be compatible with residential uses. Therefore, no significant impacts on existing residents living along Ascot Avenue would be anticipated.

During project construction, temporary noise increases would result from other operation of heavy equipment. Such temporary noise increases would primarily affect residences located immediately north of the site.

Mitigation Measures. The following measures are recommended by the consultant to reduce potential noise effects to a less than significant level.

- 1. A special noise study would be required in areas proposed for development where noise levels exceed 65 dBA (L_{dn}) --specifically, the area within 100 feet of the railroad tracks along the western project boundary and the southwestern corner of the site (the area within 400 feet of the railroad tracks and within 500 feet of the southern boundary). This study should consider the noise impact relative to the sensitivity of proposed uses ultimately located within these areas. If necessary, appropriate design measures should be recommended for incorporation into the project design.
- 2. The project sponsor should consider designing landscaping near the western project boundary to obscure views of the railroad tracks from the site. Although vegetation would not reduce actual noise levels, obscuring views of the noise source from the receptor would help minimize the perceived noise impact.

3. To minimize construction noise impacts on residents living along Ascot Avenue, the operation of heavy equipment should be limited to the daytime working hours (Monday through Friday, 8 a.m. to 5 p.m.). In addition, stationary noise sources should be located away from these residents and enclosed in sheds if possible.

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CULTURAL RESOURCES

Setting. An archaeological records search was conducted for the project area at the North Central Information Center of the California Archaeological Site Inventory, located at Sacramento State University. No recorded archaeological sites were reported for the subject property, nor had the area been previously surveyed.

On March 8 and 9, 1984, an archaeological reconnaissance was completed for the project site. Groundsurface visibility was poor throughout the project area, with soil visible only in rodent burrow backdirt and in the streambanks. No subsurface exploration was attempted. The general surface reconnaissance revealed no prehistoric or historic archaeological sites or resources.

Because the site is in a floodplain and prone to annual flooding, it is thought that the area was never used for permanent occupation. Archaeological sites would therefore tend to be created only by transient use of the area, and any trace of these sites would most likely be obscured by flooding.

<u>Potential Impacts</u>. Because thick grasses, marshy spots and alluvial deposits cover the project site, it must be recognized that undiscovered archaeological resources could exist on the property. It is therefore possible that construction of the proposed golf course and regional park could uncover and disturb archaeological resources. Archaeological materials could include: areas of localized darkened soil containing deposits of bone and/or shell, rocks larger than those commonly found in the region, lithic artifacts such as arrowheads, mortars and pestles, and stone chips (usually of obsidian or chert), fire rings or hearths, and possibly human burials.

Mitigation Measures. The following measures are provided as other mitigation.

- Construction personnel and supervisors should be made aware of the possibility of unearthing archaeological resources prior to any earthmoving on the site.
- 2. If archaeological materials are unearthed duriny construction activities, all such work within a 20-meter/60-foot radius of the find should be halted and a qualified archaeologist called in to assess the find and suggest appropriate protective measures.

ENERGY

Setting. Electricity would be provided to the project site by the Sacramento Municipal Utility District (SMUD). SMUD provides most of its electrical power through 230,000 volt transmission lines from SMUD's own nuclear and hydroelectric facilities. It also purchases power from Pacific Gas and Electric Company (PG&E) and the Western Power Authority. Large substations transform this power into 69,000-volt lines. Overhead 69,000-volt lines bring this electrical power into North Sacramento where it is further converted into 4,000 or 12,000 volts at various smaller substations. Transformers then convert this electricity into secondary voltage for commercial and residential customers.

There are electrical lines along Ascot Avenue and Main Avenue and a 69,000-volt overhead pole line along the eastern boundary of the project site.

PG&E would provide gas service to the project. PG&E supplies natural gas to North Sacramento through buried mains located along most major streets and many side streets. The nearest supply of gas to the site is a four-inch main in Ascot Avenue west of Second Street.

<u>Potential Impacts</u>. Initial energy impacts from development of the site would occur from clearing of vegetation, construction of roadways, parking areas, and structures, landscaping and other site improvements. Gasoline and diesel fuel would be used to operate equipment. Electricity would be used for the operation of power tools.

Long-term energy impacts would occur from the operation and maintenance of facilities at the site, as well as from landscaping and transportation. Gasoline would be consumed by vehicles driving to and from the site. It has been estimated that the project would generate 2,400 two-way trips per weekday (see Traffic section). Assuming an overall mileage efficiency of 25 mpg and using a worst-case estimate of 30 miles for the distance travelled to and from the site (15 miles is the farthest distance from the site remaining within the city limits), approximately 2,880 gallons of gasoline per weekday would be consumed by project vehicles. A slightly higher amount may be consumed on weekend days.

In general, proposed uses at the site would consume less energy than would other uses such as: residential, industrial, and certain types of commercial development. Assuming that energy consumption characteristics follow the same pattern as at other golf courses in the City, the proposed clubhouses at the park would consume the most energy. SMUD does not foresee any problems in providing electrical service to the project site (Pyers, 1984). Underground and overhead electrical facilities would be extended to serve the site in accordance with SMUD Rules and Regulations 2 and 16. Gas service would be extended to the site by PG&E in accordance with Gas Rules 15 and 16.

<u>Mitigation Measures</u>. The Community Plan encourages energy conservation through the following measures that are applicable for the project:

- 1. Land use design should promote energy-efficient orientation of residential, commercial and industrial uses.
- 2. Commercial, industrial and high-density residential development should be placed near public transit facilities.
- 3. Facilities for transportation alternatives to automobile uses (e.g., bikeways) should be provided.

The following measures are proposed by the consultant:

- The incorporation of passive and/or active solar design techniques into project structures would reduce energy consumption substantially, especially at the clubhouses.
- 5. The energy consumed by park lighting could be reduced by:
 - using sodium vapor lights
 - turning off lamps when not required for safety
 - reducing the number of hours of operation (e.g., turning off the lamps from 1:00 a.m. to 5:00 a.m.)
- Limit paved areas on the site in order to reduce initial energy impacts of grading and paving. Also, this would help to reduce summer temperatures.

WATER

<u>Setting</u>. Water is supplied to the North Sacramento area through wells and by surface water from the Sacramento River. The main source of water is groundwater; domestic water is produced by 43 wells with a combined capacity of 30 million gallons per day. Most of the wells were acquired by the City of Sacramento when it annexed the City of North Sacramento in 1964.

The project area is served primarily by wells. The supply of groundwater in the area is plentiful (Barons, 1984). There are fairly high levels of iron and maganese in groundwater supplies; however, this does not affect quality other than by staining fixtures (Barons, 1984). In general, treated Sacramento River water is of better quality than the present well supply. For this reason and the protection of groundwater supplies from overdraft, it is City policy to gradually convert to surface water supplies. A new update of the City's 1974 Water Master Plan will address the feasibility of a conjunctive use plan for the North Sacramento area. A conjunctive use plan would provide treated surface water to the North Sacramento area via pipes. Well water would be used only in emergency or peak demand times (i.e. fire fighting or high demand summer periods).

Surface water is presently available to the area south of Main Avenue and in developed areas to the east. The nearest water mains to the site are a 12inch main in Kelton Way at Main Avenue recently installed as part of the Main Avenue Assessment District and an 8-inch main at the west end of Pinedale Avenue.

<u>Potential Impacts</u>. Using water consumption data for the Haggin Oaks golf course, it has been estimated that, on the average, approximately 400,000 gallons per day (gpd) would be consumed during the peak months of June through September. Up to 700,000 gpd could be consumed on a peak day. Most of this water would be consumed for irrigation.

There are no problems anticipated by the City in providing water to the site. Groundwater supplies would be sufficient to supply water for irrigation, as well as for required fire flows and domestic purposes (Barons, 1984). There is also sufficient capacity in water mains located at either Kelton Way or Pinedale Avenue to provide surface water for domestic purposes. The City is considering the use of groundwater for irrigation and surface water for domestic purposes and perhaps fire flows at the park site (Yee, 1984).

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<u>Mitigation Measures</u>. The following measures are recommended as other mitigation.

- 1. The project should comply with any relevant recommendations contained in the Water Master Study currently underway.
- 2. Landscaped areas, other than the golfcourse, should be vegetated with native or drought-resistant plants to minimize increased water demands.
- 3. The type of irrigation system used on the site, particularly for the golf course, should be designed to minimize water consumption.

SEWER SERVICE

<u>Setting</u>. The project area is serviced primarily with sanitary sewers. The Main Avenue Assessment District provides sewer trunk and lateral lines to the area south and east of the site. Lands to the north of the site are served by private septic tanks.

The Dry Creek Interceptor, which runs along the former Sacramento Northern Railroad right-of-way east of the project site transports sewage from North Sacramento to the Regional Wastewater Treatment Plant south of Freeport.

The Main Avenue Assessment District has installed a 10-inch line along Main Avenue. An 8-inch line extending north from Kelton Way to approximately 200 feet south of the project site is currently under construction. This line would serve future development on either side of Kelton Way (Yee, 1984).

<u>Potential Impacts</u>. Sewer service could be provided to the site by either connecting to the Dry Creek Interceptor located east of the site or by extending the existing eight-inch line located approximately 200 feet south of the levee into the site. The latter alternative appears to be the most feasible as the distance to connect would be much shorter. It may be necessary, however to construct a sewer lift station to pump sewage from the site due to elevation differences (Yee, 1984). And although proposed development at the site would not generate a substantial amount of sewage, the eight inch line may not be adequate to serve the project site, along with other development in the area (Yee, 1984).

Mitigation Measures. None are recommended.

L-1

POLICE PROTECTION

Setting. The project site would be served by City of Sacramento Police Department District 41 and is located in Patrol sector four. The project site is in the northwest corner of District 41 which generally encompasses the Robla area. The District is staffed by one officer on each shift (Kearns, 1984).

The area north of I-80 has been experiencing an increase in crime. In 1980, larceny-theft crimes in this area increased 71 percent and burglaries increased 39 percent. This increase is attributed to recent residential development in the area and the number of houses left empty during the day, while both husbands and wives work.

Potential Impacts. The City of Sacramento Police Department is currently understaffed (Kearns, 1984). The need for an increase in the number of officers assigned to the project area as a result of development of the park site would depend on a number of factors, including hours of operation; number of people that would use facilities; the nature of additional recreational facilities to be developed at the site, and crime prevention elements built into the project. The Department would be opposed to the development of any facilities designed for either live music or amplified recorded music (Kearns, 1984).

According to the City of Sacramento Community Services Department, there is a proposal in the City of Sacramento's Master Plan to establish a park ranger program that would provide additional patrolling of city parks. This program would aid District 41 in providing protection to the project site. This program has not yet been approved.

Mitigation Measures. The following measures are recommended by the City of Sacramento Police Department to offset public safety impacts of the project:

- 1. All clubhouses, storage areas, pro shops and the like would be designed with built-in wiring for the transmission of both audible and silent burglar alarms.
- 2. Due to the isolated nature of the project, heavy duty security hardware should be used in conjunction with the burglar alarm systems.

M-1

- 3. There should be adequate lighting throughout the project.
- 4. Consideration should be given to the use of security plants, such as Threespine Barberry and Pryracantha in conjunction with fencing to provide both perimeter security and interior site security for the project.

FIRE PROTECTION

Setting. The project site would be served by the City of Sacramento Fire Department. The Natomas Fire District, located just outside the city limits, provides reciprocal protection under an automatic aid agreement.

The City of Sacramento is served by 18 fire stations, two of which are located within the project area. The Fire Department reacts to alarms by assigning a first-in response area to each station. As a matter of policy, the Fire Department responds to reported structure fires with two engines, one truck, and one battalion chief. If the fire is large, the battalion commander on the scene has the option to call in additonal help.

Sacramento Fire Department Engine Companies 17 and 15 would serve the site. Station 17 is located at Marysville Avenue and Bell Avenue, approximately 2 miles from the site and station 15, located at Néwborough Drive and Truxel Road, approximately 7 miles from the site. Each station presently has one engine and one truck.

<u>Potential Impacts</u>. There are no problems anticipated in providing fire protection to the site as fire hazards associated with this type of development are minimal (Loheit, 1984). Both equipment and personnel at both stations are adequate to serve the site.

<u>Mitigation Measures</u>. The following measure is recommended by the City Fire Department:

1. Water mains and hydrants would be required for protection of structures on the site. The required fire flow would depend on the size of structures and the type of construction.
PERSONS CONTACTED

Dale Achondo, City of Sacramento Community Services Department, Golf Division,
Harry Barons, City of Sacramento, Water and Sewers, Division 5
Sergeant Burns, City of Sacramento Police Department
Clif Carstens, City of Sacramento Planning Department
Ken Knight, Sacramento County Department of Health, Environmental Health and Sanitation, Water and Sewage Division
Dennis Loheit, Fire Inspector, City of Sacramento Fire Department
Dick Pyers, Sacramento Area Council of Governments.
Dane Spence, City of Sacramento Community Services Department
Gary, L. Wann, Sacramento County Air Pollution Control District.
Brian Wells, Pacific Gas and Electric Company
Kim Yee, City of Sacramento Department of Public Works

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REFERENCES

- City of Sacramento Planning Department, 1977. Draft EIR for South Natomas Community Plan.
- City of Sacramento Planning Department, 1984. Draft EIR for North Sacramento Community Plan.
- Greensfelder, R., 1972. <u>Maximum Expected Bedrock Accelerations from</u> Earthquakes in California. California Division of Mines and Geology.

Sacramento Area Council of Governments, 1982. Air Quality Plan.

- Sacramento Area Council of Governments, 1982. Attainment of National Ambient Air Quality Standards in the Sacramento Area.
- U. S. Army Corps of Engineers, 1982. Flood Insurance Study, City of Sacramento.
- U. S. Soil Conservation Service, 1984. <u>Soil Survey, Sacramento Area</u>, California (in progress).

APPENDIX A

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<u>Plants</u>	
G California buttercup Ranunculus califo	rnicus
G buttercup Ranunculus sp.	
V buttercup Ranunculus sp.	
G wild geranium Geranium sp.	
G filaree Erodium sp.	
G wild radish Raphanus sativa	
G shepherd's purse Capsella bursa-pa	storis
G lacepod Thysanocarpus sp.	
G mouse-eared chickweed <u>Stellaria media</u>	
G red maids <u>Calandrinia cilia</u>	<u>ita</u>
R miner's lettuce <u>Montia perfoliata</u>	<u>L</u>
G,V dock Rumex sp.	
V M smartweed <u>Polygonum</u> spp.	
G pigweed <u>Amaranthus</u> sp.	
G bindweed <u>Convolvulus</u> sp.	
G linanthus Linanthus sp.	
G Cryptantna Cryptantna sp.	
G,V popcorn flower Plaglobothyris sp).
G Tiddieneck Alisinkia sp.	
G monkeyrlower Mimulus Sp.	thuc
G, V Dutter and eggs Orthocarpus er an	ILIIUS_
G lupine Lupinus bicolor	
G bur clover Medicano hispida	
G red clover Trifolium sp.	
G vetch Vicia sp.	
G R vallev oak Ouercus lobata	
R black walnut Juglans sp.	
R cottonwood Populus fremontii	
V.M mermaid's tresses Callitriche sp.	-
M yellow waterweed Ludwegia peploide	es
V coyote thistle Eryngium sp.	
V downingia Downingia bicornu	ita
G mule's ears Wyethia sp.	
G,V cocklebur Xanthium strumari	um var.

Plants and Animals Observed on the Hansen Ranch Site

Vegetation or Habitat Type	Common Name	Latin Name
<u>Plants</u> (cont.)		
G V G,V R G M G G V V,M R,V M V,M G G G	tidy tips goldfields brass buttons mugwort milk thistle arrowhead soapplant cattail wally basket blue dicks toad rush rush iris-leaved rush bulrush spike rush soft chess ripgut brome little rattlesnake grass foxtail	Layia chyrsanthemoides Lasthenia sp. Cotula coronopifolia Artemesia douglasiana Silybum marianum Sagittaria sp. Chlorogalum sp. Typha latifolia Brodiaea laxa Dichelostemma pulchellum Juncus bufonius Juncus spp. Juncus spp. Juncus sp. Heleocharis sp. Bromus mollis Bromus rigidus Briza minor Hordeum spp.
Birds		
M , P M , P , G M , P G G , R G , R G , M M , P , G G , M M G , M M G G , R R R	great blue heron mallard cinnamon teal American wigeon turkey vulture red-tailed hawk American kestrel ring-necked pheasant American coot killdeer yellowlegs common snipe mourning dove northern flicker weingbird tree swallow	Ardea herodias Anas platyrhynchos Anas cyanoptera Anas americana Cathartes aura Buteo jamaicensis Falco sparverius Phasianus colchicus Fulica americana Charadrius vociferus Tringa sp. Gallinago gallinago Zenaida macroura Colaptes auratus Tyrannus verticalis Tachycineta bicolor

	Vegetation or Habitat Type	Common Name	Latin Name
,	<u>Birds</u> (cont.)		
	G G R G V G M	scrub jay yellow-billed magpie American robin lark sparrow savannah sparrow western meadowlark red-winged blackbird	Aphoelocoma coerulescens Pica nuttalli Turdus migratorius Chondestes grammacus Passerculus sandwichensis Sturnella neglecta Agelaius phoeniceus
	Mammals	x	
	G G G M , V , R , G	black-tailed hare Botta's pocket gopher California vole raccoon	Lepus californicus Thomomys bottae Microtus californicus Procyon lotor

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