

Environmental Impact Report

DEP No. 88-0612

SUBJECT: Miramar Road Auto Center. TENTATIVE MAP, PLANNED INDUSTRIAL. DEVELOPMENT PERMIT and RESOURCE PROTECTION ORDINANCE PERMIT NO. 88-0612 for the development of a 15.0-acre automobile sales and service center. The project site is located on the north side of Miramar Road, east of Eastgate Mall Drive in the University -community (East % of Lot 3, Section 10, T15S, R3W, SBM). Applicant: Bob Baker Enterprises.

CONCLUSIONS:

The proposed project would result in a significant incremental impact to cumulative traffic congestion and air quality degradation. This impact would occur due to the addition of approximately 3,400 average daily trips to the local street network. This project, along with other existing and planned projects in the University community, would contribute to significant levels of congestion along area roadways and freeways, and yould create vehicular emissions which cause substandard air quality conditions.

RECOMMENDED ALTERNATIVES FOR SIGNIFICANT UNMITIGATED IMPACTS:

The EIR offers several project alternatives to avoid or reduce impacts to traffic and air quality, as follows:

The No Project alternative would retain the site in its current undeveloped state. There would be no traffic or air quality impacts associated with this alternative. The vernal pool complex on the site would not be destroyed; however, the biological value of the pools would likely decline due to on-going indirect impacts of surrounding development.

The Reduced Development - Scenario 1 alternative would reduce the intensity of development in order to reduce the average daily trip generation to 500. A 16,000-square-foot auto park or a 36,000-square-foot industrial facility could be constructed in accordance with this alternative. No significant unmitigable impacts would result from this alternative.

The Reduced Development - Scenario 2 alternative would generate 2,000 trips, which would accommodate a 67,000-square-foot auto park or 140,000-square-foot industrial facility. This alternative would reduce, but not avoid significant cumulative traffic and air quality impacts.

Unless project alternatives are adopted, project approval will require the decisionmaker to make Findings, substantiated in the record, which state that: a) individual project alternatives are infeasible, and b) the overall project is acceptable despite significant impacts because of specific overriding considerations.

MITIGATION MEASURES INCORPORATED INTO THE PROJECT:

<u>Biology</u>: To mitigate for the loss of vernal pools on the project site, the applicant would purchase and conserve 14.4 acres of high quality vernal pool habitat. The preserve would be fenced and signed, and would be inspected and managed by a qualified biologist hired by the City at the applicant's expense. Acquisition and management of the preserve would be a condition of the tentative map and would be assured by an agreement between the applicant and the City. See details in the text of the EIR.

<u>Traffic</u>: Cumulative traffic impacts would be reduced by a contribution to the <u>University</u> Community Facilities Benefit Assessment (FBA). The FBA funds community—wide traffic improvements. These funds are collected by the Engineering Department prior to issuance of building permits.

Ann B. Hix, Principal Planner City Planning Department October 4, 1990 Date of Draft Report

November 26, 1990 Date of Final Report

Analyst: Kirshner

PUBLIC REVIEW

The following individuals, organizations, and agencies received a copy or notice of the draft EIR and were invited to comment on its accuracy and sufficiency:

State Clearinghouse
United States Army Corps of Engineers
United States Fish and Wildlife Service
Naval Air Station, Miramar
California Department of Fish and Game
University City Community Association
University Community Planning Group
City of San Diego
Councilmember Bernhardt, District 5
Planning Department

Engineering and Development Department

Copies of the draft EIR, the Mitigation Monitoring and Reporting Program and any technical appendices may be reviewed in the office of the Development and Environmental Planning Division, or purchased for the cost of reproduction.

RESULTS OF PUBLIC REVIEW

- () No comments were received during the public input period.
- () Comments were received but the comments do not address the accuracy or completeness of the environmental report. No response is necessary and the letters are attached at the end of the EIR.
- $(^{\mathrm{X}})$ Comments addressing the accuracy or completeness of the EIR were received during the public input period. The letters and responses follow.

DEPARTMENT OF TRANSPORTATION

DISTRICT 11, P.O. BOX 85406, SAN DIEGO 92186-5406

NOV 2 0 1990 LONG PANGE PLANNING

November 15, 1990

11-SD-805 23.6/26.3

Miriam Kirshner City of San Diego DEPD MS 4C

Dear Ms. Kirshner:

DEIR for the Miramar Road Auto Center, a 15.0-acre automobile sales and service center, SCH 90010972

Caltrans District 11 comments are as follows:

- Page 23 Our agency is particularly concerned about cumulative traffic impacts at the Interstate Route 805/Miramar Road interchange. The timing of the subject development versus the construction of recommended street improvements is also an issue that needs to be addressed. We note, however, that ". . . the cumulative impacts cannot be reduced to below a level of significance."
- Table 1 (Recommended Street Improvements) Improvements K. and L. have severe cost and operational constraints and will probably not be supported by our agency.

Our contact person is Jim Linthicum, Project Manger, Project Studies "B," (619) 688-6952.

Sincerely,

JESUS M. GARCIA District Director

By M. Chen

JAMES T. CHESHIRE, Chief Environmental Planning Branch

Mo:ec

- Comment noted. Page 23 of the EIR was revised to address this comment.
 Assessments are collected from project applicants at the time of issuance of building permits. The assessments are used to construct street improvements recommended in the community plan. The Public Facilities Phasing Plan requires that improvements to the I-805/La Jolla Village interchange be constructed before certain thresholds are met, thereby minimizing the lag time between impacts and improvements.
- Comment noted. Improvements K and L are recommended street improvements included as part of Facilities Benefit Assessment and Phasing Plans for the University Community. These improvements are not part of the proposed project.

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LETTER	TITLE
A	Vernal Pool Preservation Program
В	U.S. Fish and Wildlife Service Correspondence
C	U.S. Army Corps of Engineers Permit
D	Notice of Preparation and Responses

I. INTRODUCTION

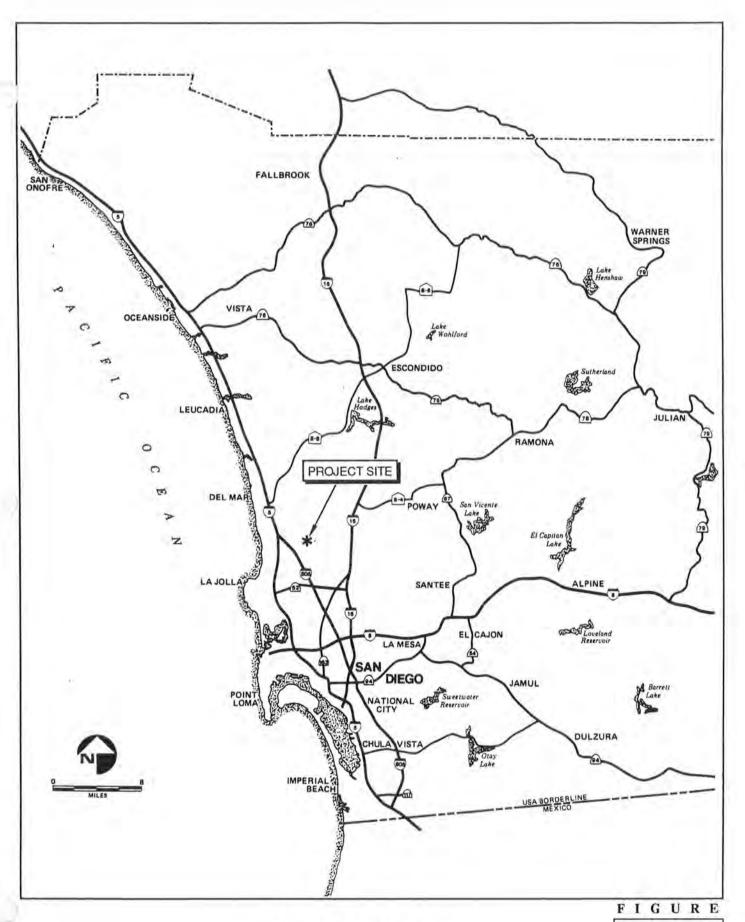
This Environmental Impact Report addresses a proposed vesting tentative map and an amendment to a planned industrial development permit. The property currently has an approved tentative map, planned industrial development permit, and is zoned M-1B for commercial and light industrial development on a 14.95-acre vacant site. The project is located on the north side of Miramar Road between Miramar Place and Miramar Mall in the University community. The project objective is to locate a cluster of four auto dealerships on one site with convenient freeway access to serve the north city area.

This report has been prepared to address potential environmental impacts associated with the above discretionary actions in accordance with the California Environmental Quality Act (CEQA) (PRC 21000 et seq.) and State CEQA Guidelines (Administrative Code 15000 et seq.). Based upon an Initial Study conducted by the Environmental Analysis Section of the City of San Diego, this Environmental Impact Report focuses on issues which were determined to be potentially significant. The issues identified and addressed in this document are biology, traffic, and cumulative air quality impacts. For each issue, the EIR analyzes existing conditions, potential impacts and recommended or incorporated mitigation measures are included. The Initial Study is on file in the office of the Environmental Analysis Section.

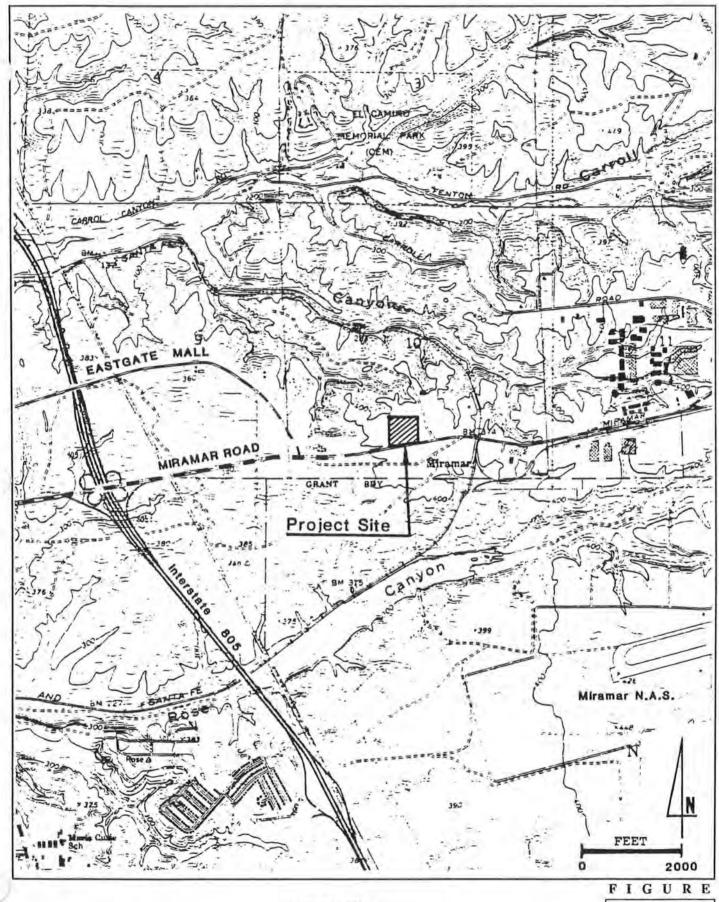
A Notice of Preparation was circulated for this project on August 7,1990. Letters were received from the California Department of Fish and Game and the United States Army Corps of Engineers. The letters discussed biological resources and permit requirements, respectively. The Notice of Preparation and Responses are included as Appendix D to this EIR.

II. PROJECT DESCRIPTION

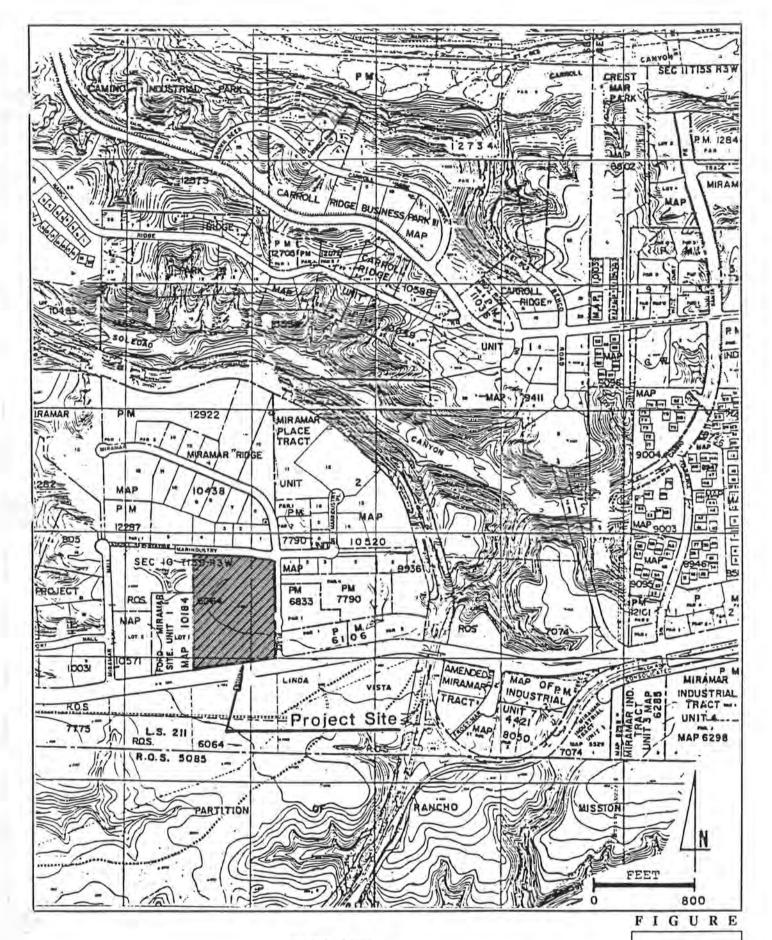
The proposed project is located on the north side of Miramar Road between Miramar Place and Miramar Mall in the eastern portion of the University Community (see Figures 1, 2 and 3). The discretionary actions are a vesting tentative map, an amended planned industrial development permit, and a Resource Protection Ordinance (RPO) permit.



Regional Location Map



Location Map U.S.G.S. Del Mar Quadrangle



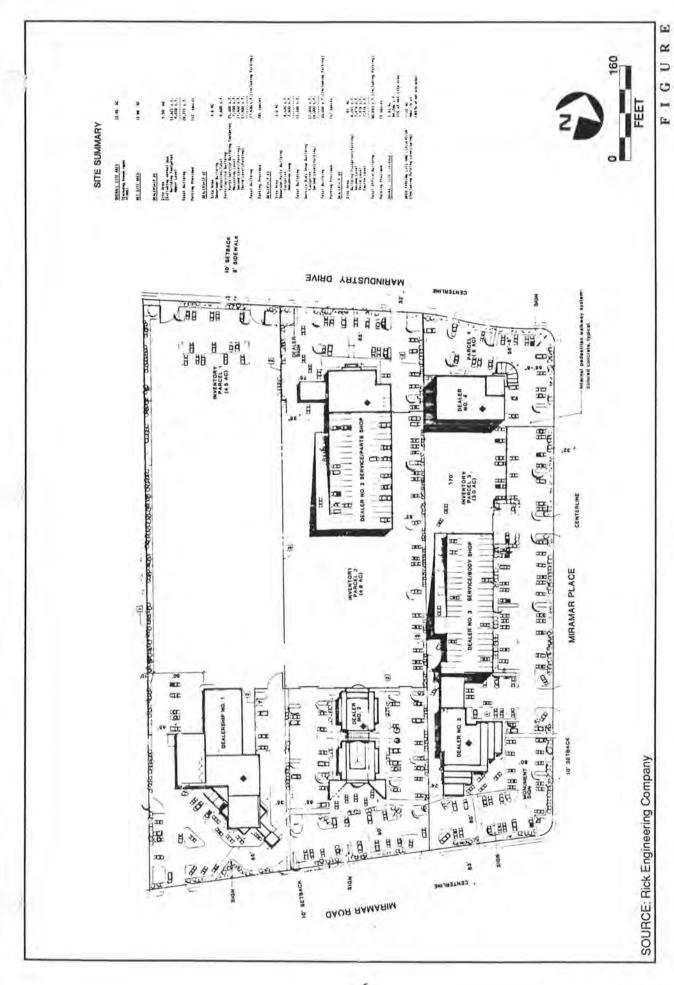
Location Map

The development involves of a vesting tentative map to subdivide the parcel into four lots for development of four auto dealerships. Lot 1, located along the western portion of the project site, would contain a 20,271 square foot auto dealership (building area) on 4.50 acres. Lot 2, located in the center portion of the project site, would contain an 42,600 square foot auto dealership on 4.60 acres. Lot 3, located in the southeast portion of the project site, would contain a 28,100 square foot auto dealership on 3.0 acres. Lot 4, located in the northeast portion of the project site, would contain a 22,428 square foot auto dealership on 0.85 acre.

The project would dedicate right-of-way to the City for the widening of Miramar Road to six lanes. The gross site area before right-of-way dedications is 14.95 acres, and 13.0 acres net site area after right-of-way dedications. Building development would cover approximately 2 acres or 15 percent of the net site area. Landscaping would be provided over approximately 1.2 acres, and 4.75 acres would be used for vehicle storage (inventory). Parking for employees and customers and internal circulation would cover approximately 4.07 or 31 percent of the net site area (627 spaces). The landscape plan includes carrotwood and evergreen elm trees, oleander and photinia shrubs, and star jasmine and lantana ground cover along the project's perimeter. Parking for auto storage and customer use is proposed along the northern, eastern and southern boundaries of the project, with storage both on the boundaries and in the center of the project (see Site Plan, Figure 4). The inventory (storage) area is expected to support up to approximately 750 cars.

Access to the project would be from driveways along Miramar Road, Miramar Place and Marindustry Drive. Street improvements which are incorporated into project design include:

- Signalization of the intersection of Miramar Road/Miramar Place.
- Limitations of access along Miramar Road to right turns in and right turns out only. This would be accomplished by the installation of a raised median in the center of Miramar Road along the frontage of the project.
- Improvements of the roads abutting the project to City Standards as follows:
 - a. Miramar Road to six-lane primary arterial standards.



Site Plan

- b. Miramar Place to four-lane collector standards.
- c. Marindustry Place to local industrial street standards.

The development is subject to the U.S. Navy Air Installation Compatible Use Zone (AICUZ) and NAS Miramar Comprehensive Land Use Plan because of its proximity to NAS Miramar. The U.S. Navy has developed land use policies and standards limiting land use to prevent incompatible uses around air stations. The AICUZ and NAS Miramar Comprehensive Land Use Plan restrict certain land uses and the extent of building coverage for areas that are impacted by aircraft-produced noise or accident potential. According to the AICUZ Land Use Suitability Standards, the maximum noise level suitable for light industrial use is 80 db CNEL. The subject property is impacted by noise levels up to 75 db CNEL. The applicant has granted, as part of the project, an easement deed to the U.S. Navy which limits the gross site coverage to 25 percent of the surface area.

As part of the project, a U.S. Army Corps of Engineers (ACOE) Section 404 (Clean Water Act) permit is required because of the presence of vernal pool habitat on the site. A "Section 7" consultation with the U.S. Fish and Wildlife Service (USFWS) is required as part of the 404 permit procedure (Section 7 of the Endangered Species Act requires that actions authorized or funded by federal agencies be subject to consultations with the USFWS concerning impacts to federally-listed endangered species). Section 7 consultation with federal agencies has been completed for the proposed project.

III. PROJECT BACKGROUND

The proposed Planned Industrial Development Permit and tentative map would supersede a Planned Industrial Development (PID) and tentative map approved in 1985. The previously approved PID subdivided the 14.95 acre site into three lots for development of a home improvement center and light industrial uses. To mitigate impacts to vernal pools, 1.25 acres (or approximately 10 pools) onsite were to be retained as a vernal pool preserve. The federal agencies determined in 1985 that this preserve, with protective measures, was considered adequate mitigation.

The proposed PID would subdivide of the property into four parcels with an auto dealership on each site. Mitigation for vernal pools is proposed offsite. The ACOE and USFWS required reinitiation of the Section 7 consultation process because conditions had changed with regards to the resource (vernal pools) since approval of the project in 1985. (Section 7 of the Endangered Species Act requires that actions authorized or funded by federal agencies be subject to consultation with the U.S. Fish and Wildlife Service concerning impacts to federally-listed endangered species). The applicant has completed consultation with the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service and a mitigation program has been agreed upon. The federal review determined that a preserve area of 12 acres would mitigate the project's impacts to vernal pools. Additional impact analysis using guidelines established in the City's Draft Resource Protection Ordinance (City of San Diego 1990) indicated that the preserve should total 14.4 acres. The project impacts and mitigation are discussed in Section V.A.

IV. ENVIRONMENTAL SETTING

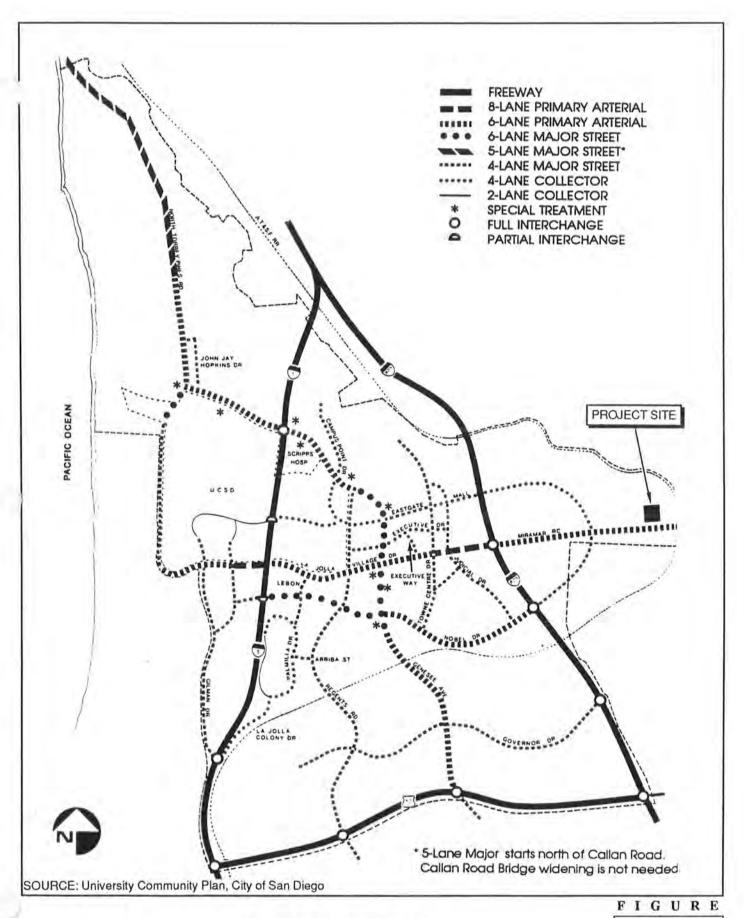
The project site is currently vacant and partially disturbed due to encroaching urbanization, particularly the portions of the site adjacent to Miramar Road, Miramar Place, and Marindustry Drive. The site is generally level with Miramar Road; elevations range from 400 feet to 402 feet above mean sea level. Surrounding zoning and land use consist of light industrial development in the M-1B Zone. Office buildings and an industrial development are located to the north of the project. Property to the east is developed with furniture warehouses, a trash truck maintenance facility, and industrial development. A truck dealership and a distribution center are located to the west. Property to the south in the A-1-10 Zone across Miramar Road is a vacant portion of Miramar Naval Air Station.

The site is located within the approximately 206 acres designated for restricted industrial uses in the University Community Plan. To ensure land use compatibility with current and projected operations at NAS Miramar, Planned Industrial Developments are encouraged within the appropriate industrial zones. The aircraft noise and accident potential from NAS Miramar has restricted residential and commercial development along the Seawolf Departure path and nearby areas. The noise and safety constraints have resulted in a predominance of industrial development along Miramar Road.

According to the biology survey, two plant communities are present on the site: vernal pool habitat and chaparral. The vernal pools are distributed throughout the site and many of the pools contain endangered plant species. The San Diego Mesa Mint (*Pogogyne abramsii*), a federally listed endangered plant species, is found associated with the pools in the project area. The species button celery (*Eryngium aristulatum* ssp. *parishii*), which is listed as endangered by the State of California, occurs both within and outside of the vernal pools on-site.

The street system surrounding the project site consists of Miramar Road, Miramar Place and Marindustry Drive. Presently, Miramar Road is not fully improved. The University Community Plan designates Miramar Road as a six-lane primary arterial, with a 102-foot curb-to-curb width. A primary arterial is designed to provide for movement of traffic through areas and to interconnect major areas of the City. Miramar Place is a four-lane collector street, with a 64-foot curb-to-curb width along the subject property's eastern boundary. A collector street serves to move traffic in local areas and carry it to major streets. Collector streets are also designed to provide direct access to abutting properties. Along the subject property's northern boundary is Marindustry Drive. Marindustry Drive is classified as a two-lane local industrial street, with a 44-foot curb-to-curb width. A local street is designed primarily to provide access to adjoining property with the movement of traffic given secondary importance. (See Figure 5).

The project site is within the Naval Air Station (NAS) Miramar Air Installations Compatible Use Zone (AICUZ). The AICUZ was derived at by combining the noise impact areas with the accident potential zones. The Comprehensive Land Use Plan for NAS Miramar contains guidelines to ensure compatible development in the NAS Miramar impact area. The AICUZ and the Comprehensive Land Use Plan were developed to ensure land use compatibility of potential developments in areas impacted by noise and safety. The Midway-Miramar project is subject to 75 db CNEL noise levels and lies within APZ-B3 which identifies the project area to have a significant accident potential. Automobile sales are identified as compatible uses within APZ-B3 by the Comprehensive Land Use Plan.



Recommended Street Network

V. ENVIRONMENTAL ANALYSIS

A. BIOLOGY

Existing Conditions

The 14.95-acre project site is presently vacant and partially disturbed, particularly the portions adjacent to Miramar Road, Miramar Place, and Marindustry Drive. The topography is level with elevations varying by only two feet. Two plant communities are present on the project site: chaparral and vernal pools.

The chaparral on-site is made up of two subcommunities. The most common subcommunity present is chamise chaparral which covers 9.6 acres or approximately 68 percent of the site. This form of chaparral is clearly dominated by a single species: chamise (Adenostoma fasciculatum). The second subcommunity present, mixed chaparral, covers 0.3 acres or approximately 2 percent of the site. The mixed chaparral consists of chamise, mission manzanita (Xylococcus bicolor), black sage (Salvia mellifera), toyon (Heteromeles arbutifolia), coast blue lilac (Ceanothus tomentosus ssp. olivaceus), coast white lilac (Ceanothus verrucosus), scrub oak (Quercus dumosa), laurel sumac (Rhus laurina), yerba santa (Eriodictyon crassifolium), and lemonadeberry (Rhus integrifolia). Grasses and weedy species cover 30 percent of the site but are not considered to be a separate grassland community (WESTEC 1981).

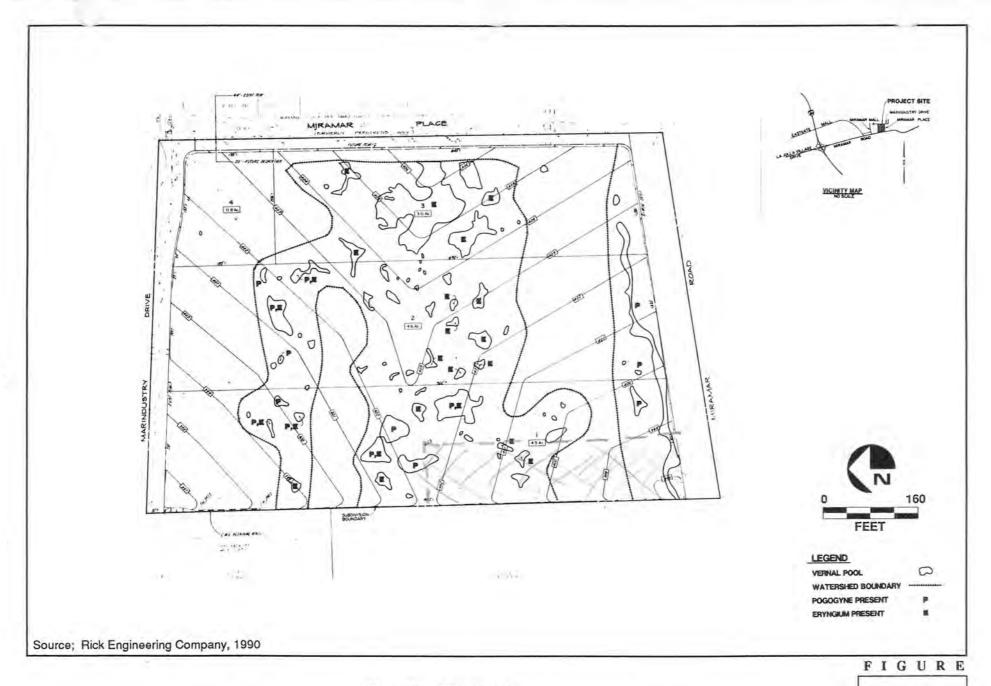
The only sensitive plant in this plant community is the coast white lilac. The coast white lilac is rated 1-2-1 by the California Native Plant Society, indicating that it is rare in California, but more common elsewhere.

The property is expected to support a faunal population characteristic of the coastal plain of the San Diego area. The northern portion of the site offers good cover for wildlife and nesting opportunities for a variety of chaparral bird species. The more open southern aspect of the property offers forage and a hunting area for raptors. Diversity and numbers of rodent species are expected to increase in this southern area due to the more abundant forbs and grasses (WESTEC 1981).

A total of 77 vernal pools were identified onsite in 1981 surveys. This series is considered to be of high quality biologically but low "protectability" due to private ownership (U.S. Fish and Wildlife Service letter dated April 15, 1983). The pools on-site contain San Diego Mesa Mint (Pogogyne abramsii), a federally-listed endangered plant and button celery (Eryngium artisulatum ssp. parishii), a state-listed endangered plant. Pogogyne abramsii was recorded from 12 of these pools, principally in the western half of the property. Site disturbances since 1981 have included dumping in the northeastern corner, the loss of the northernmost disturbed pool along the eastern border (175 square feet), partial filling of an estimated 70 feet of the linear pool along Miramar Road, and partial filling of a small pool in the southeasternmost corner of the site (200 square feet). Pogogyne abramsii was not previously recorded in any of these disturbed pools. The disturbed pool area is offset by the extension of an existing pool along an old road cut covering an estimated 700 square feet.

As indicated in Figure 6, currently 76 pools are mappable onsite. Of these, 14 contain *Pogogyne abramsii*. *Pogogyne abramsii* was found in 11 of the previously identified 12 pools containing the endangered species in 1981, plus 3 new pools including the large linear pool along Miramar Road. In the linear pool, *Pogogyne* was present at two locations in close proximity in the eastern portion of the pool. One pool containing *Pogogyne abramsii* was bisected by the roadway cuts and may now be considered two separate pools, both still containing the endangered species in tire ruts. The apparent loss of *Pogogyne abramsii* from one pool may be an artifact of the recent drought, and seeds may still be present in the soil. In 1979, *Pogogyne abramsii* was recorded in 4 pools onsite, but the survey was not conducted at the appropriate time of year. *Eryngium artisulatum* var. *parishii* was found in 23 of the pools during the most recent surveys (Figure 6).

The areal extent of the surface area of the vernal pools mapped in 1981 was 1.05 acres. Given the limited site disturbances over the past 8 years, the current surface area is still estimated at 1.05 acres. The watershed of these pools is difficult to determine, even with a 40 scale map due to the lack of topographic variation and the dense chamise chaparral over much of the site. Mima mound topography is only present along Miramar Road. An estimate of support watershed was made in 1981 at about 7 acres. This acreage basically circumscribed the entire vernal pool



Vernal Pool Resources

complex. Some minor variations in watershed boundary may be determined with further study, but the overall acreage is expected to be close to 7 acres.

The vernal pool complex on the project site was once part of a larger contiguous vernal pool system covering the southern portion of the two adjacent properties to the west, which are now developed, with each retaining only small disjunct vernal pool preserves. The complex was also once part of the large pool complex located across Miramar Road to the south. The site is now surrounded by development on three sides and by Miramar Road. There are no connective open space corridors or drainage connections to or through the property.

The pools on the site are of three basic types. The pools along Miramar Road are interspersed with mima mounds and grassland habitat. These pools have more depth than those elsewhere onsite. Another type of pool represented are those at the rear of the property which were part of the preserve designated by the previous tentative map. These pools are shallow with most supporting *Pogogyne* as well as a high diversity of other vernal pool species. The third type of pools are those along the east-central property boundary. These are large shallow pools with sightly undulating topography which present a "meadow" appearance.

The U.S. Army Corps of Engineers has jurisdiction over isolated wetlands, and vernal pools have been defined as isolated wetlands. Furthermore, the Corps must review all projects involving wetlands if a threatened or endangered species is present. Because of the presence of a federally-listed endangered species within sensitive wetland habitat, proposed impacts to the vernal pools on-site are subject to federal jurisdiction and require the property owner to obtain an individual 404 (Clean Water Act) permit from the U.S. Army Corps of Engineers prior to development. The 404 process requires consultation with the U.S. Fish and Wildlife Service regarding impacts to federally-listed species. The Corps will issue an individual 404 permit only if the Fish and Wildlife Service determines that the project would not impact critical habitat, or that no feasible alternative to the project exists and biological impacts are fully mitigated.

<u>Issue A-1</u>: Would the proposed project result in a significant impact to sensitive biological resources?

Impact

The development of the proposed project would result in the loss of all of the on-site vernal pool habitat, including all pools containing *Pogogyne* and/or *Eryngium*. Portions of this habitat have either already been destroyed or disturbed by dumping and filling, but other pools are considered to be high quality. The loss of vernal pools is considered a significant impact.

The proposed development would eliminate the chaparral on-site. Because chaparral is not considered sensitive, the loss is not considered significant.

Significance of Impact

The loss of vernal pool habitat and the endangered plant species are considered significant. The loss of chaparral is not considered significant.

Mitigation

As mitigation for the loss of vernal pools, 14.4 acres of high quality vernal pool habitat would be preserved off site. The extent and location of the preserve was determined through formal consultation with the U.S. Fish and Wildlife Service (Appendix B) and discussions with the City of San Diego. This consultation concluded that off-site preservation of 12 acres of high quality vernal pools would avoid the risk of jeopardizing the *Pogogyne* entailed by the proposed project. Additional project analysis using draft guidelines established in the City's Resource Protection Ordinance concluded that the preserve must cover 14.4 acres.

Preservation of 14.4 acres of vernal pool habitat will occur on Carroll Mesa immediately north of Carroll Canyon in the central portion of the Mira Mesa Community Plan area. The preserve area is part of a 19.1 acre parcel that has been purchased from the H.G. Fenton Material Company. The area necessary to satisfy the mitigation requirements of Bob Baker Enterprises is delineated on Figure 7. Portions of the remaining 4.7 acres contain several additional vernal pools will remain in open space and are available for independent mitigation needs. The preserve area contains high quality vernal pool habitat (including drainage) as mitigation. The northern edge of the preserve is bordered by the residential



ERC Environmental and Energy Services Co.

Vernal Pool Mitigation Parcel (19.1 Acres)

development of the Mira Mesa Community area. Immediately south of the preserve is property owned by the H. G. Fenton Material Company. The adjacent slope is unimpacted; however, sand and gravel mining operations are currently active in the portion of Carroll Canyon that traverses next to the preserve area. Other than these existing neighboring land uses, most of the area south and west of the preserve site remains undeveloped; however, expanded mining activities and additional residential development is proposed throughout the H. G. Fenton property. An unnamed tributary immediately northwest of the preserve should remain as open space as will the unnamed main channel north of Carroll Canyon that the tributary joins.

The vernal pools to be preserved contain both *Pogogyne abramsii*, (San Diego mesa mint) and *Eryngium aristulatum* ssp. *parishii*, (button celery). The federal agencies determined that this preserve, with protective measures, is considered adequate mitigation for the loss of vernal pool habitat associated with the proposed development.

The applicant has agreed to the following protective stipulations at the preserve site:

- The mitigation shall include installation and maintenance of appropriate fencing around the perimeter preserve. This fencing would consist of chain link fence. A 20-foot-wide lockable gate will be included in the fence to allow access for maintenance of the pools. Under normal circumstances, no access will be allowed and the gate will be kept locked.
- Signs will be posted on the fence at appropriate intervals which indicate the vernal pool preserve boundaries and prohibit unauthorized access.
- The property manager will be responsible for removal of any trash or dumping of fill material, grass or ornamental clippings, or other unnatural debris.
- The property manager will be responsible for restoration of any areas that are damaged or disturbed during its tenure as custodian of the site and the removal of exotic or invasive plants.

- The preserve will be inspected by a qualified biologist a minimum of four times throughout the year to monitor the condition of the vernal pool resources and the general site conditions.
- The property manager will maintain existing fire breaks. The fire break will not be widened or moved without consulting a qualified biologist to ensure that vernal pool resources and their watershed would not be adversely affected.
- The use of herbicides or pesticides will not be allowed on the preserve.
 Noxious weeds shall be removed by hand.

In addition, the applicant has agreed to salvage seed material and duff from the development site and provide it to a designated recipient approved by the Corps and U.S. Fish and Wildlife Service.

Purchase of the off-site pools would be accomplished by the applicant prior to approval of the final map. The vernal pool preserve would be dedicated to the City of San Diego, after the purchase of the remaining 4.7 acres of the 19.1 acre preserve. These 4.7 acres are proposed for purchase by the City using the Vernal Pool Preservation Fund or for purchase by other property owners as mitigation for future projects. Management and maintenance of the preserve would be the responsibility of the City, with funding provided for maintenance by the applicant and the future recipient of the remaining 4.7 acres of mitigation credit. A biologist shall be retained by the City to monitor the preserve on a quarterly basis. These mitigation measures would reduce biological impacts to below a level of significance.

B. TRAFFIC

Existing Conditions

The street system surrounding the proposed Miramar Road Auto Center consists of Miramar Road, Miramar Place and Marindustry Drive. Access to the project would be from driveways along each of these streets.

Miramar Road is classified as a 6-lane primary arterial in the University Community Plan. Current traffic volumes along Miramar Road are approximately 66,200 average daily traffic (ADT) (Yates, 1990). Marindustry Drive is located along the site's northern boundary, and is a 44-foot-wide, two-lane local industrial street. Projected traffic volumes along this road are under 2,000 ADT. Miramar Place is a 64-foot-wide, four-lane collector street along the subject property's eastern boundary. Existing traffic volumes along Miramar Place are 2,800 ADT. Figure 8 shows existing (1988) traffic volumes for major roads within the University Community area. Figure 9 shows the 1986 University Community Plan projected traffic volumes for year 2005. As these figures illustrate, current volumes along many of the roadways already exceed year 2005 projected traffic volumes.

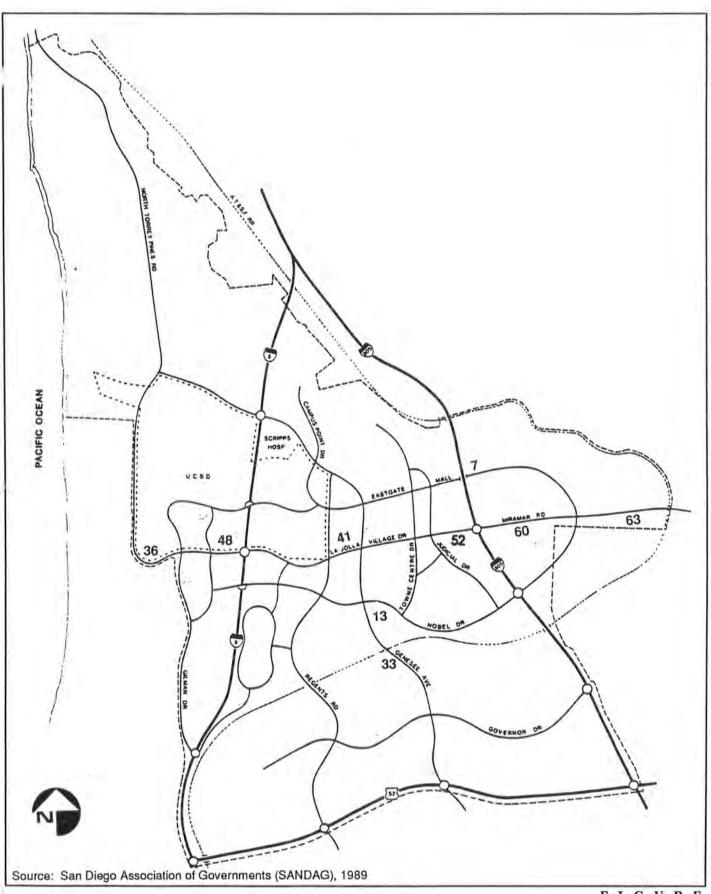
The project site is located within the traffic analysis zones 290 and 292 of the 1985 University travel forecast. The travel forecast based trip generation on land use designations in the community plan. Potential trip generation from the project site was therefore based on an industrial land use, and a total of 10,100 ADT were projected for these traffic analysis zones. For the project site, approximately 1,500 trips/day were projected in the University travel forecast.

<u>Issue B-1</u>: Would the proposed project result in direct impacts to the traffic circulation system?

Impact

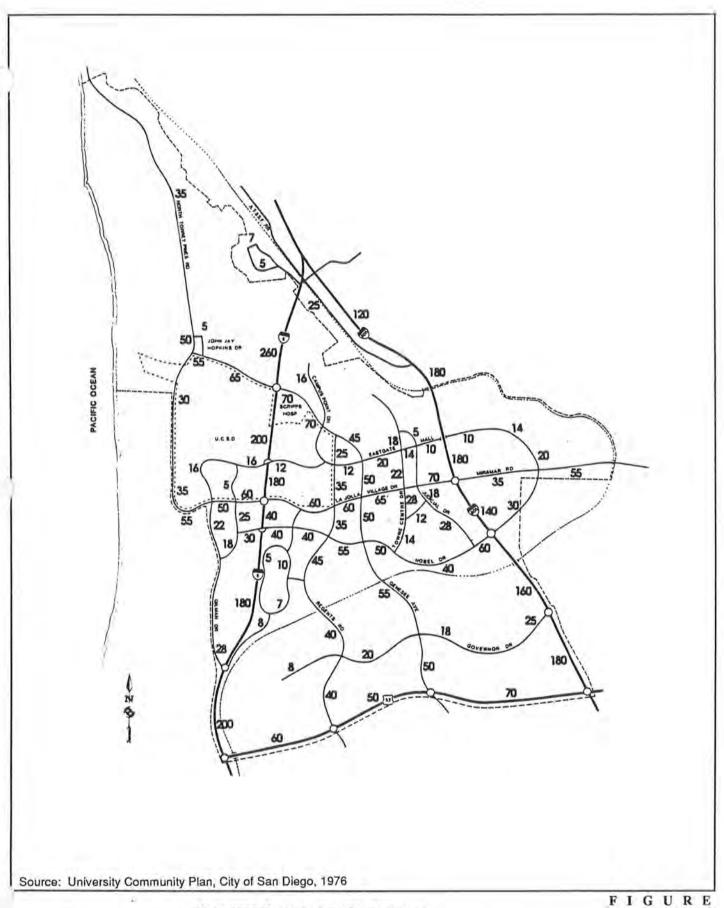
The proposed development would develop 113,400 square feet of automobile dealership uses which would generate approximately 3,402 average daily trips along Miramar Road (using the City's trip generation rate of 30 trips per 1000 square feet). The traffic forecast for the University Community Plan allocates approximately 5,200 automobile trips for this 15-acre site (350 automobile trips per acre generation rate). The proposed development is less than the average daily trip rate designated in the University Community Plan for this site by 1,800 trips.

The additional project traffic would not significantly affect the level of service at the Miramar Road/Eastgate Mall and Miramar Road/Camino Santa Fe intersections.



Existing Traffic Volumes - 1988 (Average Daily Traffic, In Thousands)

FIGURE



Year 2005 Projected Traffic Volumes University Community Plan (Average Daily Traffic in Thousands)

Significance of Impact

All adjacent streets and intersections would function at acceptable levels with the street movements and signalization to be installed as part of the project (see Section II, Project Description for description of improvements). Therefore, no direct traffic impacts would occur as a result of implementation of the project.

Mitigation

As there are no significant impacts, no mitigation is required.

<u>Issue B-2</u>: Would the proposed project result in cumulative impacts to the circulation system?

Impact

A traffic analysis was conducted in 1986 to analyze the potential traffic impacts of the University Community Plan at buildout of the community. As previously discussed, current traffic volumes on some roadways in the University Community already exceed projected year 2005 traffic volumes. Therefore, projected traffic volumes for the University Community may be understated in the 1986 analysis. The traffic analysis shows that major portions of the University Community Street network would experience level of service (LOS) D with community buildout as proposed by the plan. LOS D is defined as "approaching unstable flow with tolerable speeds maintained." Streets expected to experience LOS D include La Jolla Village Drive/Miramar Road from Torrey Pines Road to Eastgate Mall just west of the project site, as well as Interstates 5 and 805.

Intersections along these streets are expected to operate at LOS E or below unless mitigation measures are implemented. LOS E is defined as "traffic operations at ever lower operating speeds than those at Level D with volumes at or near the maximum capacity of the roadway and unstable flow where momentary stop can occur". Intersections that can be expected to operate at LOS E or below include Eastgate Mall at Miramar Road, and the Miramar Road/I-805 Interchange. However, the traffic study concluded that planned improvements at the Miramar Road/ Eastgate Mall intersection and at the Miramar Road/Camino Santa Fe

intersection would assure a level of service "C" at these locations. Project generated traffic as a percentage of total cumulative traffic for this link of Miramar Road, as calculated by the community traffic study, is three percent.

Significance of Impact

Although the project generated trips would not exceed the level allowed by the University Community Plan, an incremental impact to cumulative traffic conditions as identified in the University Community Plan would occur. This is considered a significant impact.

Mitigation

There are no mitigation measures available to mitigate cumulative traffic impacts below a level of significance beyond those identified in the University Community Facilities Benefit Assessment (FBA) and Phasing Plans. The project applicant will contribute its pro rata share to the FBA which provides community traffic improvements during the building permit process. However, traffic congestion would still occur after these improvements, and the cumulative impacts cannot be reduced to below a level of significance. Table 1 provides a list of improvements funded by the FBA to ensure than no street in the community is functioning below a level of service D. Assessments are collected from project applicants at the time of issuance of building permits. The assessments are used to construct street improvements recommended in the community plan. The Public Facilities Phasing Plan requires that improvements to the I-805/La Jolla Village interchange be constructed before certain thresholds are met, thereby minimizing the lag time between impacts and improvements.

C. AIR QUALITY

Existing Conditions

The proposed Miramar Road Auto Center is located within the San Diego Air Basin and is subject to air pollution that is primarily generated by motor vehicle emissions. The Clean Air Act of 1970 mandates applicable national ambient air quality standards to protect the public health from adverse effects caused by

Table 1

RECOMMENDED STREET IMPROVEMENTS Proposed by the Engineering and Development Department

- Widen Genesee Avenue to six lanes from Nobel Drive to SR52.
- B. Widen La Jolla Village Drive to eight lanes west of I-5 to Villa La Jolla Drive, and widen the La Jolla Village Drive bridge over Gilman to six lanes.
- C. Construct a full interchange of I-805 at Nobel Drive.
- D. Complete the widening of North Torrey Pines Road to six lanes from Genesee Avenue to Torrey Pines grade, including widening the bridge over Callan Road.
- E. Construct a "Special Treatment" on Genesee Avenue at Torrey Pines Road and John Hopkins Drive. This may consist of two additional lanes between North Torrey Pines Road and John Jay Hopkins Drive.
- F. Improve the I-5/Genesee Avenue interchange. This could include the provision of six through and two left-turn lanes on Genesee Avenue, and/or provision of flyovers for northbound to westbound and southbound to eastbound movements.
- G. Construct special treatment on Genesee Avenue form I-5 to Nobel Drive. This would consist of providing additional turn lanes medians.
- H. Provide a special treatment of the La Jolla Village Drive/Torrey Pines Road intersection. The special treatment could consist of additional turn lanes, and tunneling under a portion of the intersection.
- Widen Nobel Drive to six through lanes plus turn lanes as required from Lebon Drive to Regents Road, and Genesee Avenue to Town Center Drive.
- K. Provide the missing ramps (southbound to westbound and eastbound to northbound) of the I-5/Ardath Road interchange.
- Construct a half-diamond interchange, with ramps to and from the north on I-805 at Eastgate Mall.
- M. Dedicate John Jay Hopkins Drive and improve it as a four-lane major street; dedicate Tower Road and improve it as a four-lane collector street; extend Estuary Way as a two-lane collector street from Roselle Street to Sorrento Valley Road.

excessive concentrations of certain pollutants. The Clean Air act establishes acceptable levels for six major pollutants: carbon monoxide (CO), oxides of nitrogen (NO_x) and sulphur (SO_x), hydrocarbons, particulates, and oxidants (ozone). Each basin has been classified by the California Air Resources Board for oxidant, carbon monoxide, nitrogen dioxide and particulate matter as being either attainment (areas which meet standards), or nonattainment (areas exceeding standards). The total San Diego Air Basin is designated as a nonattainment area for ozone and particulates. The San Diego Air Basin is an attainment area for nitrogen dioxide, carbon monoxide and sulphur dioxide.

The ozone level is the major air quality problem in San Diego and is related to motor vehicle emissions from the San Diego region as well as spillover from the Los Angeles Air Basin. Ozone is formed when hydrocarbons are mixed with nitrogen oxides (NO_x) in the presence of sunlight. Because heat speeds up the reaction, concentrations are usually higher in the summer months. Region wide, the ozone levels on nonattainment days have been decreasing. Nitrogen dioxide is of concern primarily because of its major role in the ozone reaction. Motor vehicles are the major source of both NO_x and hydrocarbons in the San Diego region.

Particulate matter (PM₁₀) can aggravate respiratory diseases through penetration of the lungs. The standards for particulates were revised in 1987 to address smaller sized particulates that are a risk to human health. Local air quality conditions for particulate matter currently meet state standards. Problem areas for particulates in San Diego County are downtown San Diego, Oceanside, and Escondido.

To estimate the existing air quality in the project area, data was compiled from the "Air Pollution Control District (APCD)" monitoring station in Kearny Mesa. Table 2 indicates the number of days and hours in which standards were exceeded at this monitoring station. The only national standard that was exceeded within the last five years was an occasional violation of the national ozone standard. The more stringent state standards for ozone were exceeded more frequently. On the regional level, San Diego Air Basin is improving for ozone. However, San Diego is not expected to reach attainment because of the influence Los Angeles Basin and the fact that Los Angeles is not headed towards attainment. Total suspended particulates exceeded the state standards in 1981 and 1982; however, these appear to have stabilized below the state's threshold for this pollutant.

Table 2

KEARNY MESA AIR QUALITY MONITORING SUMMARY - 1984-1988
(NUMBER OF DAY STANDARDS WERE EXCEEDED, AND MAXIMA FOR PERIODS INDICATED)

	Year				
Pollutant/Standard	1984	1985	1986	1987	1988
Ozone:					
1-hr 0.12 ppm ⁽¹⁾	9	14	7	5	7
Max. 1-hr (ppm)	0.28	0.22	0.15	0.17	0.22
Carbon Monoxide:					
8-hr 9 ppm ⁽¹⁾	0	0	0	0	0
1-hr 20 ppm ⁽²⁾	0	0	0	0	0
Max. 1-hr (ppm	6	4	7	7	7
Max. 8-hr (ppm)	4.0	3.3	4.8	4.0	3.4
Nitrogen Dioxide:					
1-hr 0.25 ppm ⁽²⁾	0	0	0	0	0
Max 1-hr (ppm)	0.14	0.14	0.14	0.19	0.17
Sulfur Dioxide:					
1-hr 0.25 ppm ⁽¹⁾	0	0	0	. 0	0
24-hr 0.05 ppm ⁽²⁾	0	0	0	0	0
Max. 1-hr (ppm)	0.03	0.04	0.03	0.04	0.02
Total Suspended Particulates:(3)					
24-hr 260 μgm/ ³ (1)	0	0	0	0	0
24-hr 100 µgm/3 (2)	0	0	3	3	6
Max. 24-hr μ gm/ ³	91	92	114	110	113
Lead Particulates:					
Max. quarter 1.5 μgm/ ³	0	0	0	0	N/A
Max. 1.0 Mo. 1.5 µgm/3	0	0	0	0	N/A

⁽¹⁾Federal standard

Source: Air Pollution Control District

⁽²⁾State standard

⁽³⁾Percent of samples which exceed standards

The Air Quality Management Plan for the San Diego Air Basin is the Regional Air Quality Strategies (RAQS) prepared by the San Diego Association of Governments (SANDAG) in cooperation with the APCD and local governments. The RAQS as revised in 1982 presents pollution control strategies composed of a series of tactics intended to attain and maintain clear air standards in the San Diego Air Basin while accommodating directed growth. The basic assumption of RAQS is that the San Diego Air Basin can have both growth and clean air as long as growth is consistent with a well defined scenario (the SANDAG's Series VI growth projections). If development departs significantly from these projections, and is therefore inconsistent with the RAQS, it might preclude the ability of region to meet federal and state air quality standards.

The RAQS focuses on measures needed to achieve the ozone standards to the extent practical. The RAQS recommends the following tactics which are relevant to the proposed project:

- Design arterial intersections and new developments to carry projected traffic volumes without congestion (Level of Service C or above).
- Implement traffic engineering improvements to all heavily congested intersections if possible (Level of Service E or below).

Issue C-1: What cumulative impacts would the project have on air quality?

Impact

According to CEQA, a project will have a significant impact on air quality if criteria air pollutant emission levels violate any air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollution concentrations. Since the project is located in the San Diego Air Basin, which does not meet state and federal standards for ozone or state standards for PM₁₀, any increase in air pollutant emissions which produce ozone or PM₁₀ further contribute to violation of ozone or PM₁₀ standards.

In the past, environmental documents relating to development in the San Diego region have often been deficient in their assessment of potential air quality impacts.

These deficiencies were mostly a result of reviewing such projects individually, with too little concern for the cumulative effects of the development. Individually, each project's emissions could be shown to represent a negligibly small incremental change to the regional pollutant burden; taken collectively, however, these developments and the population increases they foster have contributed and will continue to contribute significantly to the degradation of the region's air quality.

Vehicular traffic can contribute significant amounts of carbon monoxide, nitrogen oxides, PM₁₀, and urbanned hydrocarbons to the local air shed. The amount of pollutants emitted from vehicles depends on several factors, including trip generation rates, trip lengths, vehicle mix and smog abatement equipment. The proposed automotive dealerships are projected to generate 3,402 ADT. The project would potentially generate approximately 46 tons/year of carbon monoxide (CO), and 8 tons of nitrogen oxides (NO_x), the main precursors to ozone, as well as 2 tons/year of particulates. Table 3 contains a breakdown of the pollutants that would be generated by vehicular sources associated with the Miramar Road Auto Center development in the year 2000.

Table 3

MIRAMAR ROAD AUTO PARK
SUMMARY OF PROJECTED VEHICLE EMISSIONS
(Tons/Year)

Mobile Source Pollutants	Total* Projected Emissions Tons/Year		
Carbon Monoxide (CO)	46		
Nitrogen Oxides (NO _x)	8		
Particulates	2		

^{*}Based on projected vehicle emissions data for the year 2000 (CARB).

The proposed project will add trips to the University Community area which is predicted to have intersections operating at below level of Service C. Levels of Service relates to emissions because certain pollutants (e.g. carbon monoxide and

hydrocarbons) are released in greater quantities during vehicle acceleration and deceleration. These pollutants also decrease as speeds increase due to the more complete combustion of fuel at higher speeds. Conversely, nitrogen oxide releases increase with the greater engine heat achieved at higher speeds. In general, increases in idling time result in increased emissions.

Significance of Impact

Although the proposed Miramar Auto Center would not have a significant direct impact, the project would contribute to a significant cumulative impact on the air quality in the San Diego Air Basin.

Mitigation

The contribution of the project to the cumulative air quality impacts cannot be mitigated to below a level of significance. The severity of the air quality impacts can be somewhat reduced by the City's Transportation Demand Management Program (TDM). The Transportation Demand Management Ordnance, adopted by the City Council in 1989, requires employers to offer employee incentives to utilize alternative work hours or commute modes, such as mass transit, carpooling, vanpooling, bicycle commuting, walking, and telecommuting (working at home and communicating electronically with the work site).

Employers with more than 50 employees are now required to participate in the program. In subsequent years, employers with more than fifteen employees will be required to participate. Requirements include building owners of facilities exceeding 25,000 gross square feet to provide to the City a list of all tenants for distribution of TDM promotional materials. Developers of buildings over 25,000 square feet requesting a discretionary permit are required to provide a comprehensive TDM plan detailing facilities and services to be provided for tenants.

Stage 1 of the TDM plan requires employers to report on commuting conditions to the City. The second stage involves the preparation of a TDM plan to reduce to 55 percent the percentage of employees who drive alone at peak periods. In the third stage, the employer would modify the TDM plan to prescribe additional actions if necessary to meet the goal.

The ordinance does not create sanctions for failure to meet the 55 percent target. There are sanctions for failing to submit and implement TDM plans. Since the TDM ordinance is relatively new, a measure of its effectiveness has not yet been made.

Further reduction in air quality impacts would only occur through a reduced project design.

VI. MITIGATION MONITORING AND REPORTING

Significant impacts for biological resources, cumulative traffic and air quality have been identified for the proposed project. Mitigation measures to reduce cumulative traffic and air impacts are discussed in the University Community Plan. Mitigation of cumulative traffic impacts are identified in the University Community Facilities Assessment (FBA) and Phasing Plans and the project applicant will contribute its pro rata share to the FBA as part of the building permit process. Mitigation of cumulative air quality impacts can be somewhat reduced by the City's Transportation Demand Management (TDM) program. The project applicant will be required to comply with the TDM ordinance. There are no available mitigation measures to reduce cumulative traffic and air quality impacts beyond those identified in the Plan for the proposed project. Therefore, no monitoring or reporting would be required for cumulative traffic and air quality mitigation.

The following measures will be required to mitigate significant biological impacts to vernal pools. As mitigation for the loss of vernal pools, 14.4 acres of high quality vernal pool habitat would be preserved off site.

- The mitigation shall include installation and maintenance of appropriate fencing around the perimeter preserve. This fencing would consist of chain link fence.
 A 20-foot-wide lockable gate will be included in the fence to allow access for maintenance of the pools. Under normal circumstances, no access will be allowed and the gate will be kept locked.
- Signs will be posted on the fence at appropriate intervals which indicate the vernal pool preserve boundaries and prohibit unauthorized access.

- The property manager will be responsible for removal of any trash or dumping of fill material, grass or ornamental clippings, or other unnatural debris.
- The property manager will be responsible for restoration of any areas that are damaged or disturbed during its tenure as custodian of the site and the removal of exotic or invasive plants.
- The preserve will be inspected by a qualified biologist a minimum of four times throughout the year to monitor the condition of the vernal pool resources and the general site conditions.
- The property manager will maintain existing fire breaks. The fire break will not be widened or moved without consulting a qualified biologist to ensure that vernal pool resources and their watershed would not be adversely affected.
- The use of herbicides or pesticides will not be allowed on the preserve.
 Noxious weeds shall be removed by hand.
- Purchase of the off-site pools would be accomplished by the applicant prior to approval of the final map. The vernal pool preserve would be dedicated to the City of San Diego, after the purchase of the remaining 4.7 acres of the 19.1 acre preserve. These 4.7 acres are proposed for purchase by the City using the Vernal Pool Preservation Fund or for purchase by other property owners as mitigation for future projects.
- Management and maintenance of the preserve would be the responsibility of the City, with funding provided for maintenance by the applicant and the future recipient of the remaining 4.7 acres of mitigation credit. A biologist shall be retained by the City to monitor the preserve on a quarterly basis.

VII. ALTERNATIVES

The California Environmental Quality Act (CEQA) requires that an EIR include a discussion of project alternatives which could feasibly attain the basic objective of the project while reducing or eliminating any identified significant environmental

effects. The "no project" alternative must also be evaluated. Project-related biological impacts were identified as significant (although mitigable through an off-site vernal pool preserve). Significant cumulative traffic and air quality impacts were also identified. The following alternatives are described which would avoid or reduce the impacts caused by the implementation of the project.

A. NO PROJECT

The No Project alternative would retain the site in its undeveloped state. This alternative would not result in significant impacts to biology, traffic, or air quality. However, it is expected that the vernal pools on the site would progressively deteriorate as they become surrounded by intense development, resulting in altered hydrology, invasion by exotic plant species, and intrusion by humans and pets. No off-site mitigation would be accomplished by this alternative, and there would be no contribution to the Facilities Benefit Assessment for traffic improvements.

B. REDUCED DEVELOPMENT INTENSITY ALTERNATIVE - SCENARIO 1

The intent of this alternative would to be to mitigate significant cumulative traffic and air quality impacts through a reduction of development intensity and/or change in proposed land use to reduce the project-generated traffic. As described in this EIR, significant cumulative traffic and air quality impacts are projected to result from the proposed project and future development within the University Community. A sensitive site design could also be developed whereby impacts to onsite biological resources are minimized.

In order to avoid cumulative air quality and traffic impacts, the project would be redesigned to reduce the ADT by 2,902 trips to a total of 500 ADT. This reduction could be accomplished through reducing the size of the auto park facilities and/or changing the proposed land use to one with a lower trip generation rate. Using a trip generation rate of 30 trips/1000 square feet for auto parks or 14 trips/1000 square feet for small industrial use, a 16,667 square foot auto park or a 35,714 square feet industrial facility would each generate 500 trips. This alternative would reduce cumulative traffic and air quality impacts to below a level of significance. Implementation of this alternative would result in a reduced contribution to the

Facilities Benefit District (FBA) for traffic improvements since the FBA is based on project-generated ADT.

The impact to onsite sensitive biological resources would be reduced because this alternative design would cover less of the project site than the proposed project. The alternative could be designed in such a manner that would allow for either on-site preservation of vernal pools (i.e., preserve all pools with mesa mint) and offsite preservation (thus reducing the offsite mitigation acreage) or offsite mitigation only. The on-site preservation would likely include at least 1.25 acres with most of the San Diego Mesa Mint. The impacted pools would be mitigated off-site at a 2:1 ratio. Offsite preservation would be preferred to onsite because a larger preserve would be more defensible. This is the environmentally preferred alternative because it results in no significant impacts.

C. REDUCED DEVELOPMENT INTENSITY ALTERNATIVE - SCENARIO 2

This alternative is similar to Alternative B, however, the ADT would be reduced to 2,000 trips. This would reduce but would not fully mitigate impacts to cumulative traffic and air quality impacts.

The proposed project would generate 3,402 average daily trips. In order to minimize cumulative air quality and traffic impacts, the project would be redesigned to reduce the ADT by 1,402 trips. This reduction could be accomplished through reducing the size of the auto park facilities. Using a trip generation rate of 30 trips/1000 square feet for auto parks, a 66,667 square foot auto park would generate 2,000 trips. A mixed use concept of auto park and industrial development could also accomplish a reduction in ADT. For example, an 80,000 square foot industrial development and a 29,333 square foot auto facility would generate 2,000 ADT. Although this alternative does not fully mitigate impacts to cumulative traffic and air quality, it would reduce the level of impact. Implementation of this alternative would result in a reduced contribution to the FBA for traffic improvements since the FBA is based on project-generated ADT.

The impact to onsite sensitive biological resources would be reduced because this alternative design would cover less of the project site than the proposed project. The alternative could be designed in such a manner that would allow for both

on-site preservation of vernal pools (i.e., preserve pools with mesa mint) and offsite preservation (thus reducing the offsite mitigation acreage) or offsite mitigation only. However, this alternative could result in a smaller isolated preserve which is less preferable to USFWS and ACOE than establishment of a larger offsite preserve.

D. ALTERNATIVE SITES CONSIDERED BUT REJECTED

Industrially developable areas within the City of San Diego were explored as potential alternative site locations to the proposed project. Both the Mission Valley and Kearny Mesa areas were considered for location of automotive dealerships. Site selection criteria includes easy site accessibility and high visibility from major roadways. The clustering of franchises is preferred by automobile manufacturers, dealerships and customers. Such clustering also reduces traffic generation. The California Automobile Franchise Act (Vehicle Code Section 3000, et seq.) limits those areas in which new automobile dealerships may be located. Vehicle Code Section 3062, for instance, gives any existing dealer the right to file a protest to the California New Motor Vehicle Board if his franchisor tries to establish or relocate another dealer in the same line of cars within his relevant market area, i.e., within a radius of ten miles (Vehicle Code Section 507). These protests give rise to administrative hearings before the Board pursuant to Vehicle Code Section 3066, and a final resolution can take as long as five years. Because the existing clusters of franchises (Mission Valley and Kearny Mesa) within the San Diego market area already contain the major franchises, the Vehicle Code would restrict their duplication, in these communities.

In addition, the project is proposed to serve the north city area which would preclude the use of communities outside the north city area. All other sites within the University City community would result in similar unmitigated cumulative impacts to traffic and air quality.

Other communities in the North City area were eliminated for various reasons. La Jolla and Torrey Pines are primarily residential communities, are fully developed, and have traffic and air quality impacts of their own. North City West is a primarily residential community, with almost full buildout of its commercial/industrial town center. The Sorrento Hills community may offer some opportunity for auto

dealerships. However, the major roads accessing the community have not yet been built.

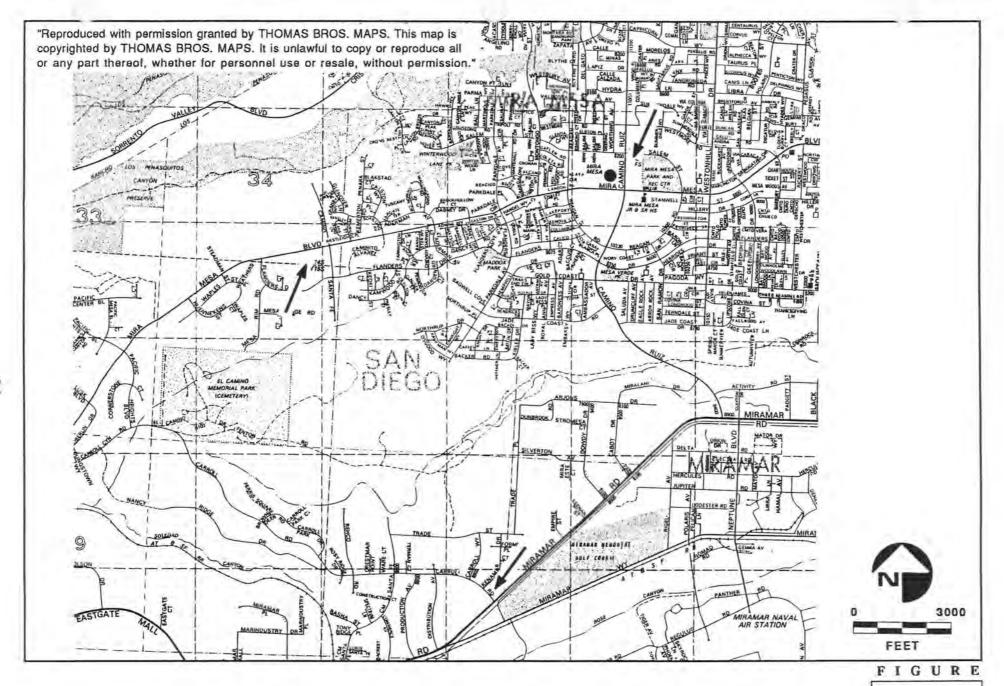
A potential alternative site in the North City would be in the Mira Mesa community along Mira Mesa Boulevard, Miramar Road, or Camino Ruiz. A preliminary traffic study has shown that portions of these roadways, would operate with significant congestion, particularly in the eastern portion of the community. A search for a 10-20 acre parcel in Mira Mesa was made.

As indicated in Figure 10, three vacant parcels were identified within the Mira Mesa community. However, none could feasibly be developed as an auto center due to site constraints and/or traffic congestion at nearby intersections. The site located on the corner of Mira Mesa Boulevard and Camino Santa Fe (in the Lusk Business Park East) was examined. The 1982 environmental impact report for this 390-acre site concluded that significant traffic impacts would result if commercial or office development occurred within the M-1 B zoning on the site, as the community plan traffic projections assumed industrial development generating 130 ADT per acre. Development of the auto center on a portion of this site would result in higher ADT than assumed in the community plan as the auto center would generate an estimated 350 ADT per acre.

The site on Camino Ruiz and New Salem Street could not accommodate an auto center facility such as the one proposed due to its limited acreage (less than 5 acres). Additionally, the intersection of Camino Ruiz and Miramar Boulevard (1 block south of the site) is already experiencing heavy congestion during the peak hours.

The site located on Carroll Road and Miramar Road is part of the Miramar Metro-Plex Planned Industrial Development. The leasable area is 460,000 square feet (10.8 acres). The site could potentially accommodate an auto center; however, traffic generated by the facility would contribute to cumulative traffic impacts along Miramar and Carroll Roads.

In summary, the three identified alternative sites would not be considered environmentally superior to the proposed project as significant cumulative traffic and air quality impacts would occur and have been eliminated as potential alternative sites.



Alternative Sites

10

VIII. REFERENCES

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X. EIR PREPARATION

This Environmental Impact Report was prepared by the City of San Diego, Planning Department, Development and Environmental Planning Division, located at 202 "C" Street, 4th Floor, San Diego, California, 92101. The following professional staff participated in its preparation:

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Vernal Pool Mitigation Miramar Road Vernal Pools

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January 18, 1990

Vernal Pool Mitigation Miramar Road Vernal Pools

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January 18, 1990

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В	Area Calculations for Vernal Pool Habitat on Carroll Mesa		
C	Additional Mapping of H.G. Fenton Property		
D	Maintenance and Monitoring Program		

VERNAL POOL MITIGATION MIRAMAR ROAD VERNAL POOLS

Background

Development of a 12.96-acre parcel by Miramar Road Auto Center Properties north of Miramar Road will result in a direct loss of 76 vernal pools including 14 pools that contain the federally-listed endangered species *Pogogyne abramsii*. The total areal extent of the vernal pools was measured as 1.05 acres. Proposed mitigation, including attainment of an Army Corps of Engineers Nationwide Permit, property re-zoning, change of ownership, and recent Corps demand for reinitiation of a Section 7 consultation have been evolving for this property and proposed development since 1980 as a result of the projected loss of vernal pools and sensitive species. Of focus for offsite mitigation has been 19.1 acres within the H. G. Fenton property in Mira Mesa that contains comparable quality vernal pool habitat as on the Miramar site and an extensive population of *Pogogyne abramsii*.

Past studies on the Carroll Canyon vernal pool habitat (Figure 1) that occurs within the H. G. Fenton property report from 34 (Bauder 1986, Beauchamp 1979) to 48 (RECON 1979) vernal pools onsite that comprise the clusters designated as 5 through 8 of the "D-series" recorded for this area (excerpts from past studies are included as Attachment A to this report). Beauchamp (1979) indicates a cumulative basin area of 0.36 acre (1440 m²) for these pools; whereas, RECON (1979) reports a total of 1.87 acres (7,569 m²). The area reported by RECON is presumed to include low-lying interbasin area or vernal meadow (see discussion below), consistent with the field methodologies and habitat delineation at the Miramar site.

Recent conversations with the resource agencies, in particular the U.S. Fish and Wildlife Service, have highlighted a number of alternatives to fully mitigate the proposed loss of vernal pool habitat at the Miramar site. The alternative preferred and being pursued by Miramar Road Auto Center Properties is offsite purchase and preservation of vernal pool surface and drainage area for loss of vernal pool habitat within the Miramar property. The 19.1 acres within the H.G. Fenton property would more than fully satisfy this mitigation option.

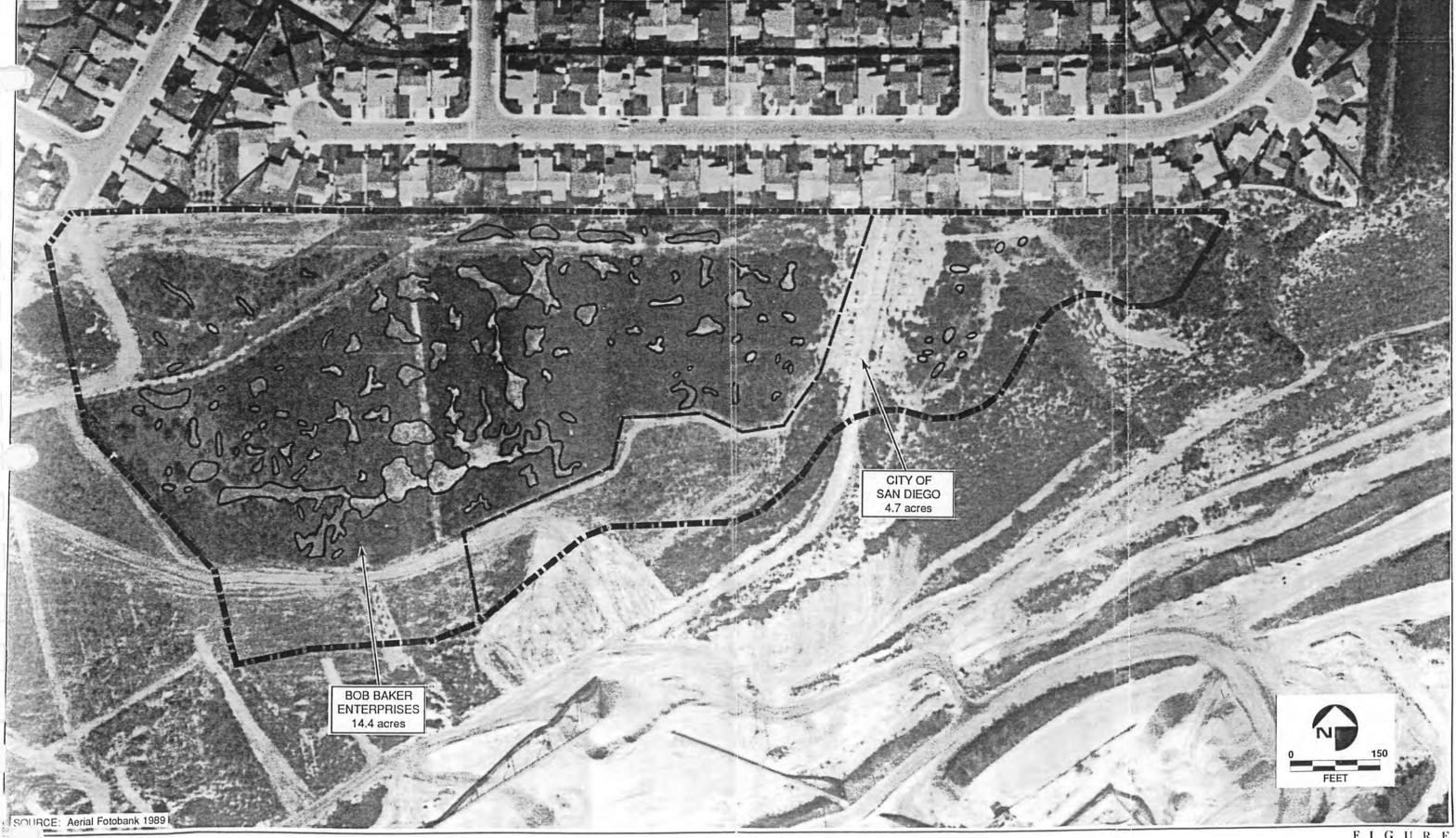
Purpose / Objectives

ERCE biologists conducted a recent survey of the H. G. Fenton property as an update to the previous studies done for this area (Balko 1979, Bauder 1986, Beauchamp 1979, and RECON 1979). The purpose of this document is to summarize the results of the recent site survey and to provide support for the preferred mitigation alternative and its ability to fully mitigate the proposed loss of the Miramar vernal pools

Field Survey and Results

ERCE biologists Paula M. Jacks and Jim Prine surveyed and measured the vernal pool habitat at the H. G. Fenton property on January 10, 1990. Survey efforts attempted to relocate each of the basins enumerated in the previous studies. A total of 72 basins with a cumulative basin area of 0.7 acre (2881 m²) were identified and measured within low-lying openings within the dense chamise chaparral habitat that dominates the mesa top in this area. Eryngium aristulatum var. parishii, identifiable at the time of the survey, was detected in 37 of the 72 basins. Interbasin areas were noted as relatively raised from the more distinct cobbly basins; however, these were not noted to be "mima mounds" or nonvernal pool area. These areas may instead be classified as vernal meadows comparable to the habitat measured and discussed for the Miramar site. These are areas that are shallow relative to the surrounding chaparral, yet somewhat undulating relative to the distinct basins within these areas. The entire low-lying area within each of the chaparral openings identified in the field were subsequently measured from a 1" = 170' scale aerial photo. This total vernal pool habitat area (vernal pool basin + vernal meadow) was measured at 2.04 acres which compares with the 1.87 acres (vernal pool basin + vernal meadow) reported in the earlier RECON (1979) study conducted for this same property. Contributing watershed totals approximately 9.9 acres. Area calculations cross-referenced with Figure 1 are presented in Attachment B to this report. Additional mapping and calculations were completed in February-early March 1990 and the results are included in Attachment C.

Each of the basins were ranked relative to each other during the recent survey. Higher ranking vernal pool features included 1) a more concave basin shape with little to no surface undulations, 2) presence of cobbles, and 3) presence of *Eryngium*. Again, all measured basins would be classified as true vernal pools by the surveyors; however, the basins ranked relatively lower were viewed as being somewhat lower in quality to other



ERC Environmental and Energy Services Co.

19.1-Acre H.G. Fenton Property Including "D-Series" Vernal Pools

FIGURE

1

basins because of combined features or lack of features as noted above. Of the 72 basins, only 12 were viewed as being of relatively lower quality (ranked 1 or 2 on a 5 point scale).

The determination of absence or presence of *Pogogyne* in each of the basins within the H. G. Fenton property was not possible at the time of the recent survey; however, the earlier RECON (1979) study identified the pools that contain this highly sensitive vernal pool indicator. *Pogogyne* was detected in 11 of the 48 basins surveyed in the earlier study. The total surface area of the 11 pools is 0.7 acre (2990 m²) or 39 percent of the vernal pool basin/vernal meadow measured. By comparison, 14 of the total 76 vernal pools that occur within the Miramar site have been noted to contain *Pogogyne*. The total surface area of these pools is 0.33 acre or 31 percent of the 1.05 acres of vernal pool basin/vernal meadow measured onsite. These acreages for *Pogogyne*-containing pools do not correspond to the area of *Pogogyne* within these basins; population areas may be lower in either case.

The biological quality of the H. G. Fenton site is quite high. Twelve of the total 19 acres have been fenced for protection. The remaining 7 acres lie immediately adjacent to the fenced area and contain other "D-series" vernal pools identified in the earlier studies (Beauchamp 1979, Bauder 1986, RECON 1979). A dirt access road cleared within a small canyon separates the fenced 12 acres from the unfenced 7 acres. The existing fencing has kept site disturbance to a minimum plus the dense chaparral undoubtedly prohibits casual entry to the interior basins. All of the *Pogogyne*-containing basins identified in the RECON study occur within the primary fenced area. However, of the four basins recently surveyed within the unfenced 7 acres, 3 basins were ranked as being of medium to high quality compared to all of the pools within this property.

Discussion

Total vernal pool impacts (basin + vernal meadows) at the proposed Miramar site is 1.05 acres. This includes 14 basins that contain the federally-listed endangered *Pogogyne* abramsii where total basin area is approximately 0.33 acre. In addition, approximately 7 acres of watershed, also proposed to be impacted, surround the pools and contribute water flow to this habitat.

Miramar Road Auto Center Properties, in association with the City of San Diego, proposes to purchase the 19.1-acre H. G. Fenton property to serve as full mitigation toward proposed impacts on their Miramar site. Purchase and preservation of this property will

ensure a 2 to 1 mitigation ratio for the impacted basin area/vernal meadow, a greater than 1 to 1 watershed area, and a greater than 2 to 1 basin area of *Pogogyne abramsii*. Protection of this site will compliment the existing preserve on Lopez Ridge and is a timely addition to needed vernal pool and *Pogogyne* preservation in the region. The site is favorably located adjacent to natural topographic protection along Carroll Canyon to the south and includes acreage of steeply vegetated slopes that will constitute a natural buffer within the property area. This relative isolation and natural protection inherent at the proposed preserve site is an additional high-ranking feature of the property that will better assure the long-term preservation of the vernal pool habitat over inherent protective qualities at the Miramar site, an area adjacent to a major roadway surrounded by industrial development. A maintenance and monitoring program is included as Attachment D.

REFERENCES

- Balko, M. L. 1979. The biological evaluation of vernal pools in the San Diego region. Prepared for City of San Diego, Environmental Quality Division.
- Bauder, E. 1986. San Diego vernal pools; recent and projected losses; their condition; and threats to their existence. Prepared for California Department of Fish and Game, Endangered Plant Project.
- Beauchamp, R. M. 1979. San Diego regional vernal pool survey. Prepared for California Department of Fish and Game, Rare Plant Program.
- RECON (Regional Environmental Consultants). 1979. Report on vernal pools of the Kearny Mesa region, San Diego County.

ATTACHMENT A

EXCERPTS FROM PAST STUDIES ON THE CARROLL MESA VERNAL POOLS

(Rec. 17/11/7-9"

THE BIOLOGICAL EVALUATION OF VERNAL POOLS IN THE SAN DIEGO REGION

Prepared for

The City of San Diego Environmental Quality Division 202 C St. San Diego, CA 92101

Prepared by

Mary Lee Balko Consulting Biologist

The following three Subcommittees submitted written evaluations of the vernal pool areas in the San Diego region and made specific recommendations for vernal pool preserves. These evaluations have been fully incorporated into this report. The detailed evaluation of the vernal pools would not have been possible without the use of two surveys, San Diego Vernal Pool Study (Beauchamp and Cass, 1979) and Report on Vernal Pools of the Kearny Mesa Region, San Diego County (Villasenor and Riggan, 1979), and special thanks are given to their authors.

Subcommittee 1

John Rieger (Caltrans), Chairman Joseph Dowhan (U.S.F.W.S) Stephen Lacy (Westec) David Smith (D. Smith & Assoc.)

Subcommittee 2

Ricardo Villasenor (Recon), Chairman R. M. Beauchamp Jim Dice (CNPS) Lois Goodman (U.S. Army Corps.) Stephen Rae (Ca. F & G)

Subcommittee 3

Thomas Oberbauer (S.D. County), Chairman Mary Lee Balko (City of S.D) Jim Bartel (U.S.F.W.S.) Tim Cass

NOT EVALUATED

H 22,24,25,26,30,34,35 - Pools no longer exist.

4.3 Region II Penasquitos Canyon to Carroll Canyon

Much of the vernal pool habitat in this region has been eliminated over the years by the development of Mira Mesa and developments are already planned which would eliminate most of the existing pools. A few areas of high quality pools remain.

HIGH VALUE

Lopez Mesa - Bab - This section of relatively isolated mesa top contains twenty or fewer pools arranged in two groupings. A very large pool (13,000 ft.) is separated from more densely grouped, shallow pools to the south. Several sensitive plant species occur with moderate frequency (Pa, Bo, Io, Mmf). Some pools have been disturbed by dirt roads or off-road vehicle activity. However, the complex is considered highly defensible because it is isolated and surrounded by designated open space.

Mira Mesa - Ca - This high density complex is composed of 40 or fewer pools surrounded on three sides by canyons. The pools are of high physical quality and contain at least three sensitive species in moderate abundance (Pa, Bo, Io). The pools are undisturbed though portions of the complex have been burned. Defensibility of the area could be high if a fence is placed on the eastern edge to prevent access from the neighboring housing development.

Carroll Mesa - Db - This unique pool complex is located in dense Chaparral and is composed of many vernal "channels" so that the pools are not really distinct and isolated habitats. The dense group of pools also contains many sensitive plant species (Pa, Ea, Bo, Io, and Mmf). Disturbance is low, but the pools directly north have been graded for development and the pools would need to be protected by a fence. Carroll Canyon is located to the south. It is recommended that Fenton Materials preserve these pools as partial mitigation for use of adjacent areas as they have suggested.

SAN DIEGO VERNAL POOLS

RECENT AND PROJECTED LOSSES; THEIR CONDITION; AND THREATS TO THEIR EXISTENCE 1979-1990

Volume I. REPORT AND APPENDICES 1,4,5,6,8,9

Prepared by

ELLEN T. BAUDER
DEPARTMENT OF BIOLOGY
SAN DIEGO STATE UNIVERSITY
SAN DIEGO, CALIFORNIA 92182
September 1986

Prepared for

ENDANGERED PLANT PROJECT
CALIFORNIA DEPARTMENT OF FISH AND GAME
1416 NINTH STREET, ROOM 1225
SACRAMENTO, CALIFORNIA 95814

Under Interagency Agreement No. C-1483
Between the California Department of Fish and Game and the Trustees of the California State University

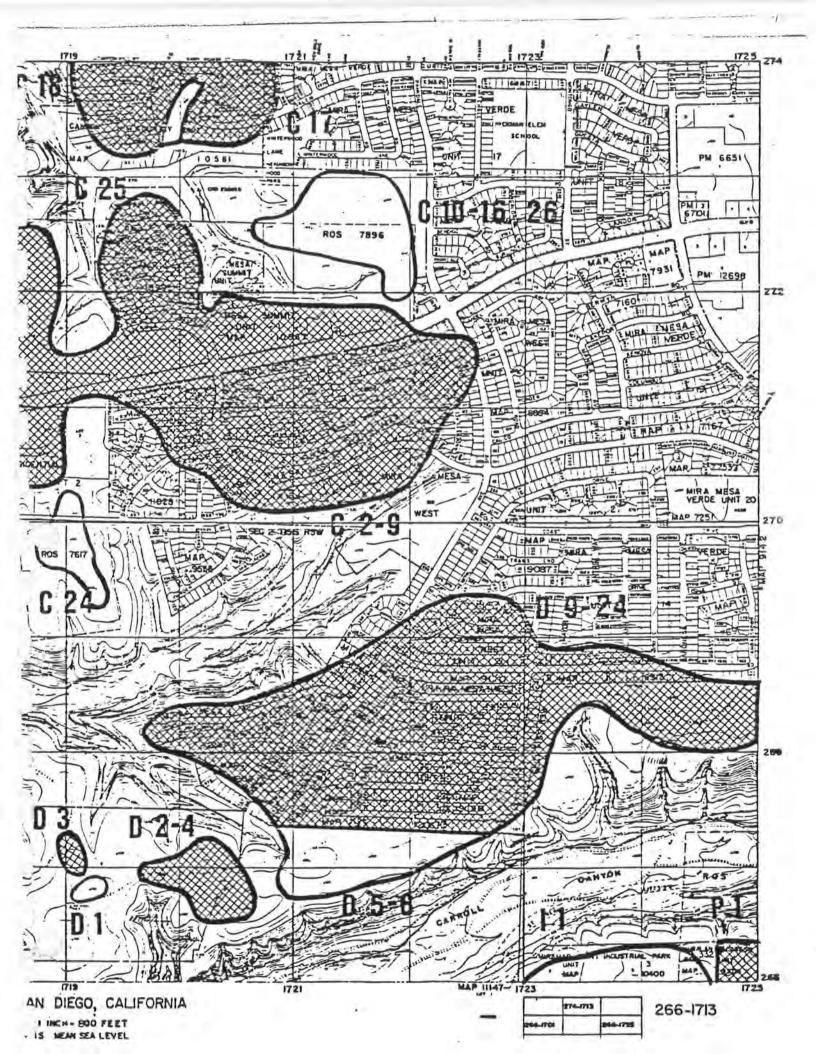
Funded by

U.S. FISH AND WILDLIFE SERVICE OFFICE OF ENDANGERED SPECIES CONTRACT NO. EP 8511-1 MIRA MESA SOUTH

D 1-27

The D series pools, along with the C series, is located on the broad mesa between Lopez Canyon and Carroll Canyon. Historically the C and D series pools were part of one large area of vernal pools, but development of the Mira Mesa community has split them into two portions: the C series to the north and the D series to the south. While many of these pools had been destroyed just prior to the 1979 survey by Beauchamp and Cass, 154 remained. By 1986 114 additional pools had been destroyed leaving 3 unprotected pools and 34 pools (D 5-8) protected by a Section 7 Fish and Wildlife consultation. These are owned by the Fenton Material Company.

The 34 pools are fenced along the southern, eastern, and western borders. Along the southern border is a natural unprotected slope. There is some disturbance where the pools abut a residential neighborhood to the north and a strip of land has been plowed. The D 5-8 pools represent a wide range of sizes and depths. Cobbles are generally absent. Most of the site is dense chamise chaparral, but to the western edge is some disturbed grassland. All six expected sensitive taxa are present (Pogogyne abramsil, Downingia cuspidata, Eryngium aristulatum, Brodiaea orcuttii, Isoetes orcuttii, and Myosurus minimus var. filiformis). Myosurus minimus var. filiformis is especially abundant compared to other sites surveyed. Some of the pools had white clay bottoms suggesting they may be of the type devoid of hardpan and frequently associated with the presence of Eryngium aristulatum.



REGIONAL NAME	POOL CODE	NO. OF POOLS 1979	NO. OF POOLS 1986	NO. OF POOLS LOST	NO. OF POOLS -PROJ. LOSSES 1986-7	NO. OF POOLS -PROJ. 1987	NO. OF POOLS - PROJ. LOSSES 1990
	C25&	4"	0			0	
	26 278+	- 9	5	0		5	5
TOTAL		212 -	76.3	135.7	10.3	66	60
NIRA MESA	0.1	3	3	0		j	3
SOUTH	2	1	0	1		0	
	3	1	0	1		0	
	4	1	0	1		0	
	5	3	3	0		. 3	
	7	12	7	0		7 12	
	8	12	12	0		12	
	9	4	0	4		0	
	10	1	0	7		0	
	11	7	0	7		0	
	12	14	0	14		0	
	13 14	5	0	1		0	
	15	i	ő	7		0	
	16	5	3	2		3	
	17	14				0	
	18	3	0	3		0	
	19	8	0	8		0	
	20	15	0	15		0	
	21 22	2	0	14 3 8 15 4 2		0	
	23	4	0	4		0	
	24 25	1	0	1		0	
	25	7	0	7		0	
	26 27	5	0	5		0	
	- 21	3	ų.	,		u	
TOTAL		154	40	114		40	3
KEARNY VILLA	E 1	10	0	10		0	
SOUTH	2	10 2	0	2		0	
	3	1	0	1		0	
	4	16	5	11		5	5
	5	1	0	1		0	
TOTAL		30	5	25	0	5	. 5
KEARNY VILLA	FI	13	13	0	13	Û	
NORTH	2	15	13 15	0	3	12	
	3	4	4	0		4	2.5
	4	1	7	0	2	5	
	5	5	5	0	5	0	
	6	1	1	0		1	

Γ. Γ.

SAN DIEGO VERNAL POOLS

RECENT AND PROJECTED LOSSES; THEIR CONDITION; AND THREATS TO THEIR EXISTENCE 1979-1990

Volume II. APPENDICES 2,3,7

Prepared by

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September 1986

Prepared for

ENDANGERED PLANT PROJECT
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U.S. FISH AND WILDLIFE SERVICE OFFICE OF ENDANGERED SPECIES CONTRACT NO. EP 85II-1

CHECKLIST OF VERNAL POOL FLORA -- SAN DIEGO COUNTY, CA.

Location/Mira Mesa Sour	th_ Date_ 4-16-86	Data by CRS, ETB
Notes		Pool Number D5-8,16
Achillea millefolium	Eriophyllum confertifloru	m XOrthocarpus purpurascens
X Adenostoma fasciculatum	x Erodium botrys	Phalaris lemmonii
Adolphia californica	Erodium cicutarium	X Pilularia americana
Agrostis	x Eryngium aristulatum	Pityrogramma triangularis
Allium haematochiton		a Plagiobothrys acanthocar.
Alopecurus	Ferocactus viridescens	Plagiobothrys undulatus
x Anagallis minimus	X Filago arizonica	x Plantago bigelovii
x Antirrhinum	Galium aparine	y Plantago erecta
Aplastrum angustifolium	x Gastridium ventricosum	x Pogogyne abramsii
x Apium leptophyllum	Gnaphalium bicolor	Pogogyne nudiuscula
Aponogeton distans	x Gnaphalium palustre	Polypogon monospeliensis
x Artemisia californica	Haplopappus venetus	x Psilocarphus brevissimus
Avena barbata	Hedypnois cretica	x Psilocarphus tenellus
Avena fatua	X Hemizonia fasciculata	Pterostegia drymaricoides
Baccharis sarothroides	Heterotheca grandiflora	Rhus integrifolia
Bloomeria crocea	Holocarpha virgata	x Rhus laurina
Brassica nigra	Hordeum glaucum	x Salvia mellifera
Brodiaea jolonensis	X Hypochoeris glabra	Sanicula bipinnatifida
x Brodiaea orcuttii	Isoetes howellii	Scrophularia californica
y Bromus diandrus	X Isoetes orcuttii	Scutellaria tuberosa
x Bromus mollis	Jepsonia parryi	Selaginella cinerascens
x Bromus rupens	x Juncus bufonius	Sibara virginica
Calandrinia ciliata	X Juncus rugulosus	x Silene gallica
x Callitriche marginata	Juncus sphaerocarpus	x Sisyrinchium bellum
Calycadenia tenella	Juncus triformis	Sonchus
Calochortus splendens	Lasthenia californica	Spergula arvensis
Camissonia cistorta	Lasthenia chrysostoma	Spergularia bocconii
Capsella bursa-pastoris	Lasthenia coronaria	Stephanomeria virgata
Centaurea melitensis	x Lasthenia glabrata	x Stipa pulchra
x Centaurium venustum	Lepidium lasiocarpum	Stipa lepida
Chaetopappa aurea	Lilaea scilloides	x Stylocline gnaphalioides
Chorizanthe	Linanthus dianthiflorus	x Trichostema lanceolatum
x Chlorogalum parviflorum	Linaria canadensis	Trifolium
x Clarkia purpurea	Lolium perenne	Veronica peregrina
Cneoridium dumosum	Lomatium dasycarpum	x Vulpia myuros
Conyza canadensis	Lotus hamatus	
Cordylanthus	X Lotus scoparius	Heteromeles arbutifulia
Cotula coronopifolia	Lotus strigosus	
X Crassula aquatica	Lupinus bicolor	Ceanothus tomentosus
x Crassula erecta	x Lythrum hyssopifolia	
Cryptantna intermedia	Marsilea vestita	Eriadictyon
> Deschampsia danthonioide		
x Dichelostemma pulchellum	Microseris douglasii	
Dichondra occidentalis	Montia fontana	
Dodecatheon clevelandii	Muilla clevelandii	
x Downingia cuspidata	X Muilla maritima	
y Elatine brachysperma	x Myosurus minimus filiformis	
Eleocharis acicularis	x Navarretia atractyloides	

Ophioglossum californicum

Eleocharis bella

tremocarous setigerus

Eleocharis bella Navarretia prostrata

y Eleocharis macrostachya x Navarretia hamata

SAN DIEGO REGIONAL VERNAL POOL SURVEY

Being an Inventory and Assessment of remaining Vernal Pool Habitat in coastal San Diego County, California

Prepared for

Rare Plant Program
Non-game Wildlife Management Branch
California Department of Fish and Game
1416 Ninth St.
Sacramento, CA 95814

Constituting partial fulfillment of Standard Agreement S-1633

Prepared by

Pacific Southwest Biological Services P.O. Box 985 National City, CA 92050 (714) 474-7219

R. Mitchel Beauchange

R. Mitchel Beauchanp, Principal Consultant

29 March, 1979

NARRATIVE

A - TIERRASANTA EAST VERNAL POOLS

Because of the natural dissection of the mesa in this region, only two pool areas appear to remain which support pool formation. The A-3 pools occur in an area covered by the Tierrasanta Norte Master Development Plan. The A-4 pools are greater in number and floristically more diverse than those of A-3.

B - MIRA MESA NORTH

This pool sector is located on the southwest-tending ridge between Penasquitos and Lopez Canyons. This ridge is often referred to as Lopez Ridge. Chamise Chaparral surrounds many of the pool areas. This area has been heavily investigated not only during this survey, but by two other surveys financed by private developers. Generally, the disturbance of the pools in this sector is low, but present, due to the proximity of residences and a dirt access road into the area. Those pools traversed by the road, of course, have the greatest disturbance. Development of this sector is soon anticipated by the William Lyons Property Company and Penasquitos, Inc.

C - MIRA MESA CENTRAL

Because of the rather easy access to this pool sector from the un-barricaded west end of Mira Mesa Boulevard, as well as clearing of some brush, many of the eastern pools are disturbed. Trash dumping has occurred along access roads and the southeastern portion of the pools was destroyed during the survey by the Pardee Mira Mesa development. The western pool area is very interesting due to its pool density, extent of one large pool (C-1), and the association with grassy habitat rather than just Chamise Chaparral. Disturbance of the western extension of Mira Mesa Boulevard will mean the total loss of these pools through the inducement of growth on the mesa.

D - MIRA MESA SOUTH

This pool sector was reduced by 70% of its extent on 26 October, 1978 through bulldozing by the Pardee developers. Portions of the sector still have pools on land owned by gock and gravel companies. Apparently one company is willing to place most of its pools into a preservation status. The other company has discussed the matter but has indicated that destruction of their pools is only a matter of time. The remaining pools of this sector are impacted by trash dumping and off-highway vehicle activity. Also the location of a major sewer line is responsible for disturbance of these pools due to the easy access it now affords to the area.

E - KEARNY VILLA SOUTH

About 70% of the pools in this sector were destroyed during the study period. The remaining pools occur in an old drive-in threater and are planned to be eliminated.

(Continued) TABLE 1, Data Index, San Diego Regional Vernal Pools EST. REGIONAL POOL EA PA PN BO NF OC IO MF MA NO.OF POOL WATERSHED DISTURB. ASSOC. OWNER POOLS AREA AREA IN (m²) ACRES FACTOR VEGET. CODE NAME MIRA MESA C17 17 2500 15 CHP WL X X 0 X 18 CENTRAL 9 900 2 CHP WL х X 50 3 1 CHP PV 19 X X 20 10 CHP PV X X X 900 0 21 22 15 CHP PV 1250 X X 22 13 12 CHP PV 800 X 23 PV 450 7 0 CHP 9 24 9 425 9 0 CHP PV 0 25 4 400 10 CHP PV 26 500 PV 9 CHP 5 FE MIRA MESA D 1 3 2 0 CHP X X 2 FE SOUTH 14 0 CHP 3 35 CHP FE 2 FE X 0 CIIP 5 30 2 2 CHP FE X X 7 3 FE 210 CHP X X X $\begin{array}{c} 7 \\ \underline{89} \\ \underline{10} \\ \underline{11} \\ \underline{12} \\ \underline{13} \\ \underline{14} \\ \underline{15} \\ \underline{16} \\ \underline{17} \\ \underline{18} \\ \underline{19} \\ \underline{20} \\ \underline{21} \\ \underline{22} \\ \underline{23} \\ \end{array}$ 12 0 FE/PR 600 CIIP X X X х X 12 2 600 CHP PR/FE X X X 3 4 200 CHP PR X X X X 7 525 3 CIIP PR X X 6 7 525 CHP PR X X х 12 PR 14 0 X 2000 CHP X 5 500 0 CIIP PR X PR 5 1800 0 CHP X X X 5 PR X X X X 1800 0 CHP 5 450 5 CHP PR/FE X X 14 700 CHP PR 8 X X X 11 3 210 CHP PR X X X 8 200 3.5 CHP PR X X 15 12 1350 CIIP PR X 2.5 4 100 CO X CHP X X 2 30 ISS CO 4 X 60 3 Di CO

* - Legend of Species Names, Associated Vegetation and Ownership Categories.

SPECIES NAMES

EA - Eryngium aritulatum var. parishii

PA - Pogogyne abramsii

PN - . Pogogyne nudiuscula

BO - Brodiaea orcuttii

NF - Navarretia fossalis

OC - Orcuttia californica

IO - Isoetes orcuttii

MF - Myosurus minimus var. filiformis

MA - Myosurus minimus var. apus

ASSOCIATED VEGETATION

Br - Brushei

CHP- Chamise, Chaparral

Di - Disced

Dt - Disturbed

Gr - Grassland

ISS- Scrub

OWNERSHIP

CO - ConRock

CR - Christiana Companies, Inc.

DA - Daley Corporation

FE - Fenton Material Co.

KE - Kendall

OR - Otay Ranch

PR - Pardee

PE - Penasquitos, Inc.

PV - Private

SD - City of San Diego

SW - Sweetwater Authority

SF - Santa Fe Land Improvement Co.

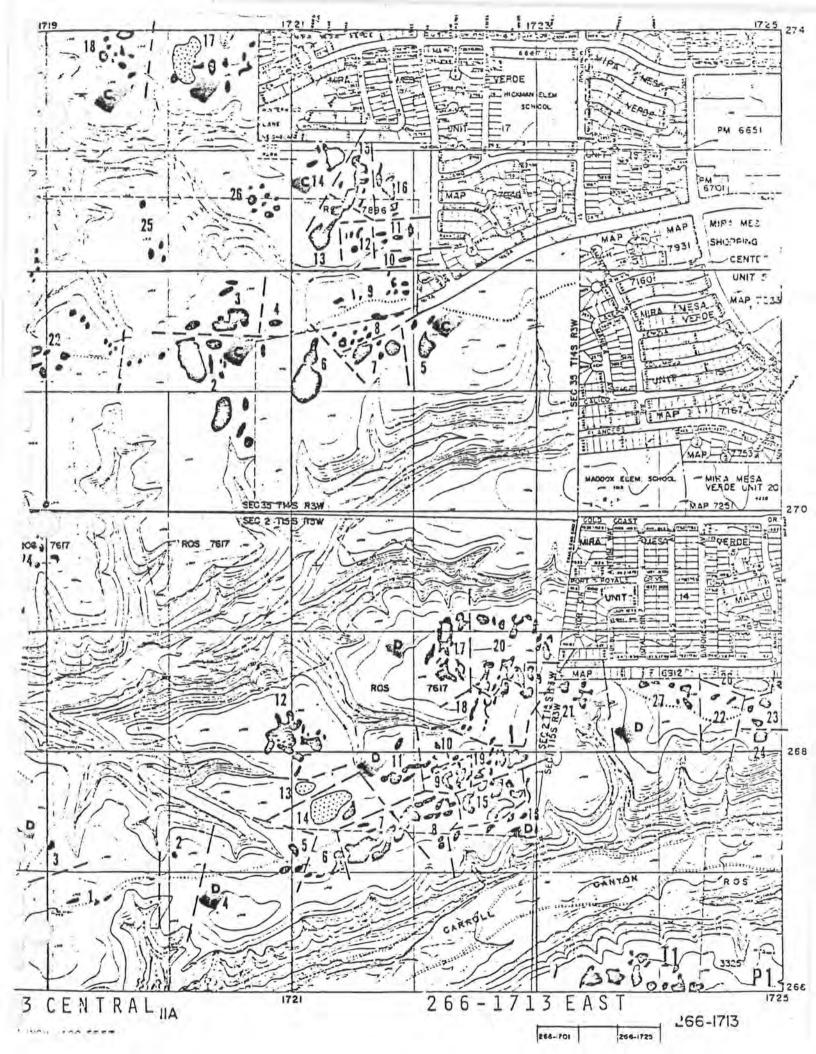
USMC - Unites States Marine Corps.

USN - United States Navy

WL - William Lyons Property Co.

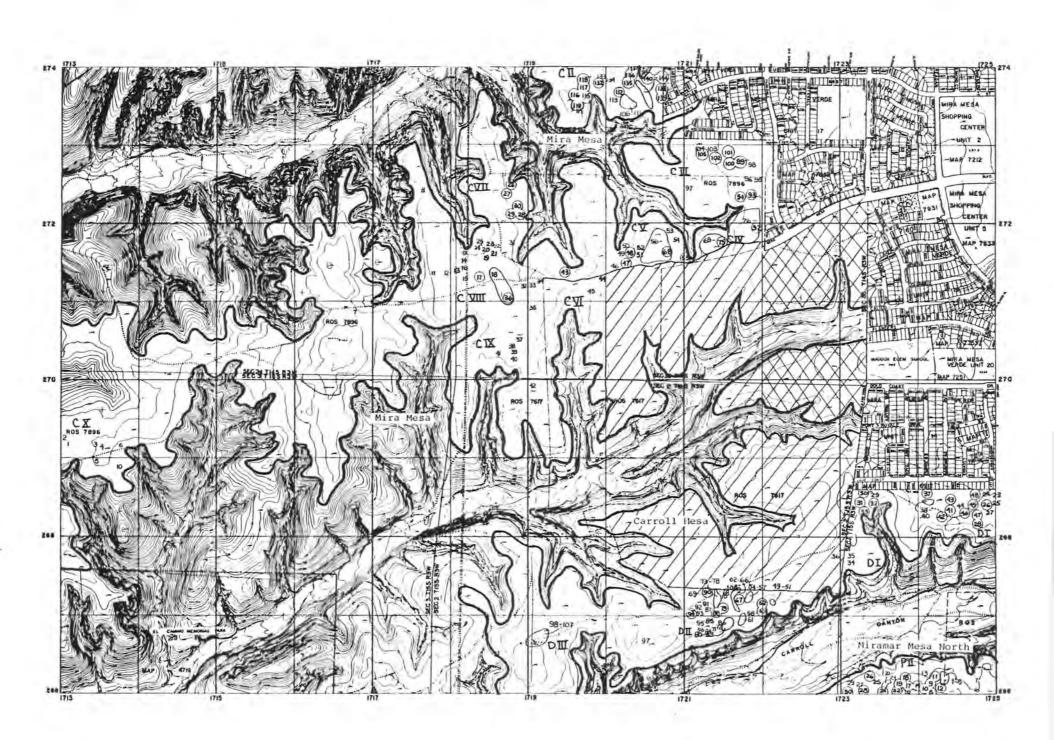
- indicates unused pool sector number

(20) Underlining indicates pool areas destroyed during the survey.



report vernal pools of the kearny mesa region, san diego county





CARROLL MESA VERNAL POOLS

Pool	Number	Size (meters)	Pogogyne abramsii (P) Eryngium aristulatum var. parishii (E)
	23	30x10	E
- 6	24	13x8	E
	25	6x5	E
	26	7×6	P,E
	27	14x9	E
	28	30x17	P,E
	29	4x3	E
	30	14x5	P
	31	20x10	P
	32	10x9	P
	33	17x3	P
	34	41x7	*
	35	7x7	*
	36	12x5	*
	37		
	38	16x10	P *
		10x6	*
	39	17×7	
	40	7×7	*
	41	55x13	P
	42	11x8	P, E
	43	19x5	P
	44	11x8	E
	45	9x8	P,E
	46	22x5	P
	47	23x5	P
	48	27x10	P,E
	49	, 5x6	*
	50	9x6	*
	51	2x3	*
	52	7x14	P
	53	9x8	P
	54	5x8	*
	55	12x19	*
	56	27x9	*
	57	17x17	*
	58	4x6	*
	59	18×15	*
	60	12x16	*
	61	15x17	*
	62	11x8	*
	63	11x4	*
	64	14x11	*
	65	18x12	100

CARROLL MESA VERNAL POOLS (continued)

Pool Number	Size (meters)	Pogogyne abramsii (P) Eryngium aristulatum var. parishii (E)
66	9x10	*
67	36x15	P
68	41x11	*
69	6x12	*
70	4×7	*
71	13x17	*
72	19x4	*
73	20x10	*
74	20x13	*
75	11x8	*
76	12x11	*
77	28x10	*
78	25x6	*
79	17x5	n P
80		P,E
81	26x15	P,E
	30x63	P, E
82	18x8	P,E
83.	12x7	P *
84	15x7	
8.5	11x5	E
86	5x7	*
87	11x77	*
88	28x8	P,E
89	12x9	E
90	14x13	P
91	13x7	*
92	16x14	*
93	17x3	*
94	10x10	P,E
95 .	11x8	*
96	6x8	*
97	3x2	*
98	6x5	*
99	6x7	*
100	8x3	*
101	5x7	
102	6x5	*
103		*
104	4x2	-
	4×2	4
105	4x3	*
106	8x3	*

CARROLL MESA VERNAL POOLS (continued)

Pool Number	Size (meters)	Pogogyne abramsii (P) Eryngium aristulatum var. parishii (E)
107	19x4	*
108	25x11	E

^{*}Pools with indicative plant taxa other than Pogogyne and/or Eryngium.

ATTACHMENT B

AREA CALCULATIONS FOR VERNAL POOL HABITAT ON CARROLL MESA

ATTACHMENT B

Carroll Mesa Vernal Pools Within the H. G. Fenton Property*

Pool Area I.D.	Acreage Area	Pool Area I.D.	Acreage Area
1	0.0259	26	0.0045
2	0.0132	27	0.0144
3	0.0220	28	0.0028
4	0.0198	29	0.0032
5	0.0139	30	0.0523
6	0.0395	31	0.2348
2 3 4 5 6 7	0.0131	32	0.0186
8	0.0718	33	0.0022
9	0.0413	34	0.0037
10	0.0300	35	0.0030
11	0.1550	36	0.0032
12	0.2761	37	0.0145
13	0.3668	38	-
14	0.0057	39	0.0087
15	0.0070	40	0.0079
16	0.2017	41	0.1286
17	0.1256	42	0.0019
18	0.0057	43	0.0055
19	0.0038	44	0.0057
20	0.0195	45	0.0099
21	0.0015	46	
22	0.0062	47	0.0037
23	0.0075	48	0.0017
24	0.0203	49	0.0012
25	0.0124		
		TOTAL	2.0367 acres

^{*} Numbers refer to locations depicted on Figure 1 in this document; acreages include both vernal pool basins and adjacent vernal meadow, similar to acreage calculations for the Miramar site.

ATTACHMENT C

ADDITIONAL MAPPING AND CALCULATION OF VERNAL POOL RESOURCES ON H.G. FENTON PROPERTY

5510 Morehouse Drive San Diego, California 92121 Telephone: 619-458-904-Fax: 619-458-0943



90-423-352 September 11, 1990

Mr. Thomas Huffman Planning Department City of San Diego 1010 Second Avenue, Suite 660 San Diego, California 92101

Subject: Vernal Pool Mitigation

Bob Baker Enterprises Miramar Road Property

Dear Mr. Huffman:

This letter is intended to update our earlier letter of March 9, 1990 to you on the same subject. At issue is the resolution of the vernal pool mitigation on the Miramar Road project site through the acquisition of a 19.1 acre parcel located north of Carroll Canyon in Mira Mesa. It was initially proposed that the project proponent would purchase 12 acres to satisfy the offsite mitigation requirements of the U.S. Fish and Wildlife Service. The remaining approximate 7 acres would be purchased by the City out of its Vernal Pool Preservation Fund.

Pursuant to subsequent processing of a draft EIR (DEP No. 88-0612) and evaluation of resources under the City's Resource Protection Ordinance, the project proponent is now obligated to compensate for 14.4 acres, leaving 4.7 acres of the mitigation parcel to be purchased by the City. The attached map illustrates the recommended division of the mitigation parcel.

Please call if you need further clarification of this information.

Sincerely,

Stephen B. Lacy

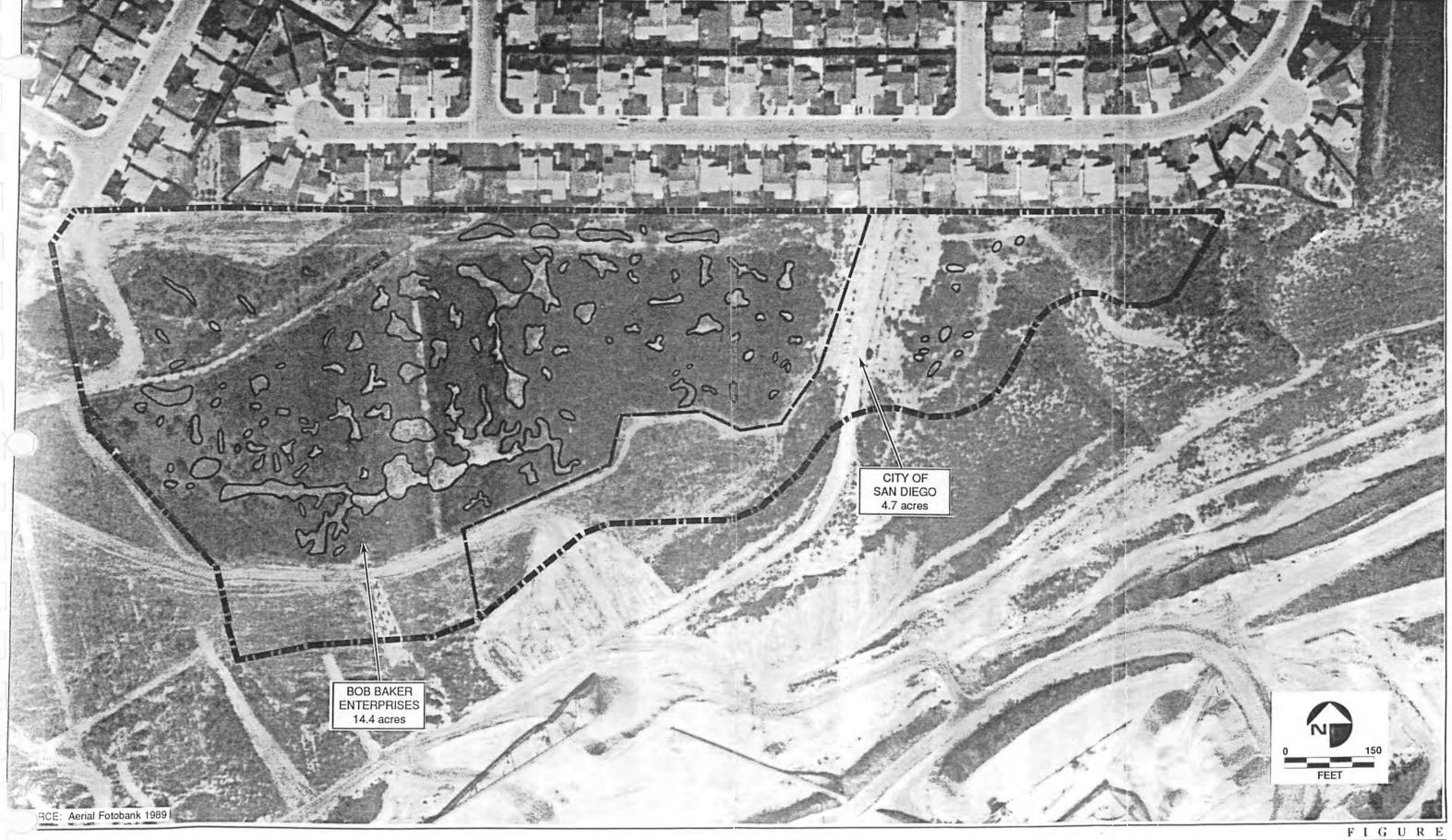
Manager,

Biological Resources Department

SL/ct

Attachment

cc: Joe Hertel, Bob Baker Enterprises
Nancy Gilbert, U.S. Fish and Wildlife Service
P. Kent, Worley Garfield Swartz



ERC Environmental and Energy Services Co.

19.1-Acre H.G. Fenton Property Including "D-Series" Vernal Pools

1

ATTACHMENT D . MAINTENANCE AND MONITORING PROGRAM

ATTACHMENT D MAINTENANCE AND MONITORING PROGRAM

The requirements for establishing a maintenance and monitoring program for the offsite mitigation parcel are set forth in the general conditions for Corps of Engineers' Nationwide Permits (Part 330.5b), special conditions for Corps permit #88-387, conditions included in the Biological Opinion by the U.S. Fish and Wildlife Service (letter dated January 22, 1990), conditions to protect vernal pool resources in the final EIR (EQD No. 83-0892, dated October 23, 1985), and by the City of San Diego's Preliminary Draft Resource Protection Ordinance (RPO) Guidelines. The implementation of these conditions will protect the resource area from undue impacts and help to maintain the viability of the resource. The conditions are enumerated below and form the foundation of the maintenance and monitoring program.

- The responsibility for the implementation of the maintenance and monitoring plan lies with Bob Baker Enterprises, Inc. (property manager) or until a resource management entity takes control of the property. This responsibility begins with the finalization of the purchase agreement. The full cost of maintenance will be borne by the property manager.
- The property manager will be responsible for maintaining the existing fence such that it restricts access of motorized vehicles, domestic animals, mountain bikes, and other intrusive actions. A 20 foot-wide lockable gate will be maintained for access to the preserve. Under normal circumstances, no access will be allowed and the gate will be kept locked.
- Signs will be posted on the fence at appropriate intervals which indicate the vernal pool preserve boundaries and prohibit unauthorized access.
- The property manager will be responsible for removal of any trash or dumping of fill material, grass or ornamental clippings, or other unnatural debris.
- The property manager will be responsible for restoration of any areas that are damaged or disturbed during its tenure as custodian of the site.

- The preserve will be inspected a minimum of four times throughout the year to monitor the condition of the vernal pool resources and the general site conditions.
- The property manager will maintain existing firebreaks. The firebreak will not be widened or moved without consulting a qualified biologist to ensure that vernal pool resources and their watershed areas are unaffected.
- The use of herbicide or pesticides will not be allowed on the preserve.

APPENDIX B U.S. FISH AND WILDLIFE SERVICE CORRESPONDENCE

become dry. For a more thorough description of the ecological characteristics of the mesa mint, refer to the Service's previous Biological Opinion concerning the mesa mint (1-1-80-F-69), supplied to the Corps of Engineers (Corps) on October 16, 1980.

The San Diego mesa mint was designated as a federally-listed endangered species on September 28, 1978. The destruction and alteration of vernal pool habitat by off-road vehicles, highway construction, housing, agricultural development, and illegal dumping were specifically cited in the endangered species determination for the mesa mint (43 FR 44811, 1978) as threats to the continued existence of the species. The State listed \underline{P} . $\underline{abramsii}$ as endangered on May 25, 1979.

The continuing destruction of vernal pools has resulted in increased threats to all plant and animal species endemic to this ecosystem. The Service is currently preparing a listing package on three additional vernal pool plant species. These species are the Loma Alta mesa mint (Pogogyne nudiuscula), California orcutt grass (Orcuttia californica), and San Diego coyote thistle (Ervngium aristulatum var. parishii). Of these three species, the San Diego coyote thistle, a Category 2 candidate species for listing as endangered, occurs in the vernal pools on the project site.

Project Impacts

The project would result in the loss of 70 vernal pools, covering slightly less than 1 acre of vernal pool surface area within approximately 6 acres of watershed in the project area. Fourteen of the pools on the project site are known to contain the San Diego mesa mint at the time of the spring 1989 survey (Figure 2) (ERC 1989). The overall project development includes establishment of a 1.25-acre vernal pool preserve on-site. This preserve, as originally proposed (Figure 1), would conserve approximately 10 of the 77 vernal pools found on-site (Fish and Wildlife Service 1983). However, three of the conserved pools would have drainage areas reduced or be located near the edge of the preserve. Thus, only seven pools would be protected by the preserve.

Vernal pools are the major component of a severely impacted ecosystem upon which the mesa mint depends. The mesa mint's rarity is clearly related to its adaptation to the very specialized and naturally rare habitat, the vernal pool. Thus, the continued existence of the mesa mint is entirely dependent upon the long-term survival of a functioning vernal pool ecosystem. Severe loss and fragmentation of this habitat type over recent decades have resulted in the current critically endangered status of this species. Loss of the remaining vernal pools, including pools which are suitable but presently unoccupied by the mesa mint, represents depletion of habitat that may be vital to the survival of this species. An indirect impact resulting from the project includes the effect of isolation and habitat fragmentation. Long-term and potentially irreversible project impacts would result from isolation and habitat fragmentation due to the small area of natural vernal pool and mesa habitat that would be preserved.

Historical Distribution and Abundance

Within San Diego County, over 93 percent of vernal pool habitat has already been eliminated (Bauder 1986). An estimated 28,595 acres of vernal pool habitat (i.e. the pools and their associated watershed) historically occurred in San Diego County. In 1978, only 2,494 acres (9 percent) remained. Despite the "San Diego Vernal Pool Preservation Program" (Preservation Program), enacted by the City of San Diego (City) in 1980, vernal pool habitat was declined to about 1,796 acres containing approximately 2,657 pools (Bauder 1986). Bauder (1986) estimated that between 1987 and 1990, the Preservation Program would incur an additional destruction of 162 pools.

The destruction of vernal pool habitat in this region occurs primarily through housing and commercial development and highway construction. Additional impacts include off-road vehicle use, agricultural development, and illegal dumping. The resulting habitat fragmentation can significantly deteriorate the viability of the remaining vernal pool habitat, including areas specifically set aside to protect this habitat.

Approximately 1,100 acres of vernal pool habitat occur on Naval Air Station, Miramar (Air Station). Vernal pool habitat consists of the vernal pool, its immediate watershed and the associated mesa top vegetational community. More conservative evaluations of remaining vernal pool habitat estimate only 382 acres remain on the Air Station (Beauchamp 1982). Between 80 and 167 acres of mesa mint vernal pool habitat are estimated to remain on private and City lands.

The California Department of Transportation estimates that for every 8 acres of vernal pool habitat, only 1 acre of vernal pool surface area can be expected (Fish and Wildlife Service 1984a). Thus, only 158 acres of vernal pool surface area remain within the range of the mesa mint (private, State, and Federal lands). Furthermore, Beauchamp (1982) estimated that only two-thirds of the vernal pools currently harbor the mesa mint. Therefore, only about 105 acres of vernal pool surface area exist that contain the mesa mint. If conservative estimates are utilized, as few as 39 acres of vernal pool surface area containing the mesa mint remain today (Fish and Wildlife Service 1984a). These 39 acres are now fragmented and separated from other natural habitat by urban housing and commercial developments and roadways and are distributed from just north of Mission Valley to Del Mar Mesa.

Since the listing of the mesa mint, much of the necessary vernal pool habitat (identified in the Recovery Plan) on private land has been eliminated or degraded (see Table 1.). The Service has emphasized the biological need for protection throughout the entire range of the mesa mint. However, the remaining vernal pool habitat areas occur predominantly (78 percent) in one geographic location, i.e. Air Station. Moreover, most of the vernal pool habitat within the range of the mesa mint (57 percent) exists in only one specific area known as the National Landmark located on the Air Station (Fish and Wildlife Service 1984a).

The pools on the Air Station have an increased level of protection due to Federal ownership of the land. However, most of these pools occur within an existing identified accident potential zone (6.8-12.5 percent risk). Similarly, important high quality vernal pools occurring on City-owned land on Montgomery Field are also within an accident potential zone. Long-term direct risks to the mesa mint occur not only from an airplane crash, but also from the need for emergency vehicle access and use of chemical fire retardants on ignited planes. In 1987, a Navy jet crashed within the midst of a vernal pool study area and missed pools by approximately 50 meters (Bauder pers. comm.).

The concentration of remaining vernal pools harboring the mesa mint in one geographical location is believed to have resulted in the loss of geographic races of the mesa mint. According to studies by Grant in 1971, "randomly interbreeding localized races are of general adaptive value, not merely local significance to a species and they are evolutionarily important to the survival of a species". Maintaining viable preserves supporting vernal pool habitat, throughout the range of the mesa mint is essential to the long-term survival of this species and the ecosystem upon which it depends.

The mesa mint is a narrowly restricted San Diego endemic. Its distribution is limited by poor dispersal abilities and occurrences in small patches of discontinuous habitat. "The patchy distribution of the mesa mint within a group of pools on a mesa top implied that the dispersal and seed storage capabilities of the mesa mint are not sufficient to ensure that it will occupy all available habitat at any given time, such that the species may occasionally and randomly disappear from some patches of habitat until recolonization occurs" (Scheidlinger 1981).

Recolonization of vernal pools by the mesa mint is an infrequent event but once it occurs, establishment of a population may proceed rapidly. Dispersal of mesa mint propagules is probably linked to some infrequent event, characteristic of the dispersal strategy of many species of specially adapted plants and animals (Scheidlinger 1981). Scheidlinger found that population dynamics of the mesa mint indicate that the mesa mint appears to be able to readily exploit new habitat once propagules arrive in a vernal pool. Vernal pools that occur within the range of the mesa mint but do not presently contain this plant represent suitable but unoccupied habitat available for recolonization by the mesa mint. The ability of the mesa mint to disperse from the occupied pools to the presently unoccupied pools would be expected as evidenced by the on-site occurrence of the mesa mint in previously unoccupied vernal pools (ERC 1989). Thus, the loss of the presently unoccupied vernal pools represent an impact to the long-term survival of the mesa mint by permanently precluding these areas from providing suitable habitat for the expansion of the distribution of this species.

Given the limited range of the mesa mint, the Recovery Plan concluded that in order to reclassify the mesa mint as threatened, all habitat identified by the Service as essential would need to be preserved. The Service determined that 10 privately-owned pool series (Ha, Hb, Hd, Bab, Ca, Db, pI, pII and iII) were "significant to the conservation and recovery of Pogogyne abramsii". The Service also stated that the Montgomery Field pools, NI and NII are "necessary to the conservation and recovery" of the mesa mint.

There is a biological need to protect all of the pool series on private lands and the protection of the Miramar pools to provide for the "conservation and recovery" of the mesa mint. A review of the remaining vernal pools demonstrates that the pI, NII, and much of the iII (including the project site), have been destroyed or substantially degraded. The loss and degradation of the habitat areas identified to be essential to the conservation and recovery of this species casts serious doubt on the chances for recovery of the mesa mint. Table 1 summarizes the status of nonfederally-owned vernal pools that have been identified as essential habitat.

The iII complex presently exists as three separate vernal pool areas totaling approximately 8.5 acres. The project as proposed would further degrade the iII complex and would reduce the total habitat area to 3.3 acres in three small fragmented areas. The project would further eliminate mesa mint habitat identified by the Recovery Plan as essential.

Threats to the Survival of the Species

Threats to vernal pools can be divided into three major categories: 1) direct destruction of vernal pools such as construction, vehicle traffic, domestic animal grazing, dumping, and deep plowing; 2) indirect threats which degrade or destroy the vernal pools over time such as altered hydrology (damming and/or draining), invasion of introduced species, habitat fragmentation (and the associated deleterious effects resulting from adjoining urban land uses); and 3) potentially catastrophic long-term threats including isolation on genetic diversity and locally adapted genotypes, air and water pollution, drastic climatic variations and changes in nutrient availability (Bauder 1987).

Direct impacts have resulted in a greater than 93 percent loss of this resource and have previously been discussed in the historical distribution section of this opinion. Bauder (1986) found that loss of vernal pool habitat could not be adequately expressed by reviewing the number of pools destroyed. Numerous roadway developments have divided the remaining vernal pool acreage into many disjunct units. Of particular note is the fragmentation of some of the best habitat because of the construction of State Route 52, Interstate 15, and Highway 163.

The specific, long-term, deleterious effects of habitat fragmentation likely include: increased adverse effects from adjacent land uses, disruption of seed and pollen dispersal (hence gene dispersal), loss of significant species interactions such as herbivore and animal mediated pollination, reduced genetic diversity, disruption of nutrient cycles, and increased invasion by exotics. All of these factors cumulatively result in a high probability of extirpation for these isolated populations (Bauder 1986).

Isolation of small vernal pool groups can also have subtle but significant adverse effects. Zedler (1987) found that species diversity within vernal pools, and genetic diversity within a single species is evenly distributed throughout a given group of pools, and between groups of pools. Thus, preserving one group of pools will probably preserve only a part of the genetic diversity of that species. Pool-to-pool dispersal plays a little understood but likely important role in the population dynamics of vernal pool plants and animals. The drastic reduction in areas of vernal pools may reduce species diversity and create conditions for invasion by introduced species (Zedler 1987).

Small isolated preserves are more likely to suffer irreversible change than large preserves and/or complexes of preserves in close proximity to one another. The more isolated a population is, the larger the preserve must be. The chances of reestablishment to an isolated preserve by propagules from outside the preserve is inversely related to the distance between preserves (Zedler 1987). Bauder (1986) recommended that further vernal pool habitat subdivisions be avoided and parcel size be kept as large as possible. To protect against the deleterious effect of further habitat fragmentation, vernal pools must be managed as part of mesa top/canyon system. Unfortunately, we expect the long-term negative effects of habitat fragmentation of small habitat units, surrounded by urban land uses, to worsen over time.

Direct loss of suitable vernal pool mesa mint habitat would occur through the construction of the project. Additional indirect impacts to the 1.25-acre preserve are anticipated. The proposed preserve is small, effectively would have no buffer; would be surrounded by four auto dealerships and have no connection to any natural habitat. The vernal pool habitat would suffer degradation from the effects of isolation and fragmentation including altered hydrology, increased exposure to contaminants and pollutants, invasion of exotic species, adverse edge effects resulting from the operation of the development, loss of natural species interactions, and reduced species diversity. As shown on Table 1, all of the small preserves have suffered adverse indirect impacts over time due to the small preserve size, inadequate buffers and lack of active management.

CUMULATIVE EFFECTS

Cumulative effects are those impacts of future State and private actions affecting endangered and threatened species that are reasonably certain to occur in the action area. Future Federal actions will be subject to the consultation requirements established in Section 7 of the Act and, therefore, are not considered cumulative to the proposed action. Thus, the Service must consider past and present State, local, and private actions, all ongoing Federal actions, and direct and indirect effects of the permit action and any interrelated or interdependent actions.

To fully understand the precarious status of the San Diego mesa mint it is necessary to consider the responsibilities of several Federal and local jurisdictional agencies, and particularly, the ability of regulatory programs to protect vernal pools.

Vernal pools that contain federally listed endangered species occur within the jurisdictional authorities of the City, the Service, and the Corps. The Corps entered into an agreement with the City in 1980 regarding the Preservation Program, preservation needs of the mesa mint and vernal pools, and regulatory requirements pursuant to the Clean Water Act. The Service provided the Corps with a formal Section 7 consultation (1-1-80-F-69) regarding this agreement.

The City's Preservation Program, despite its intended purpose, has failed to protect 79 percent of the vernal pools within the City's jurisdiction with no habitat conservation for the loss of these pools (Bauder 1986). The Preservation Program provides for collection of fees from developers. These fees are to be spent on acquisition, by the City, of remaining pool series. Although this program was designed to protect at least 50 percent of privately held vernal pools existing in 1980, only one purchase of 9 acres containing two vernal pools has occurred (pers. com. T. Huffman). The information contained in Bauder's Report (1986) brought to light the ongoing ineffectiveness of the Preservation Program (as well as the California Environmental Quality Act review process) to adequately protect or mitigate the loss of vernal pools. A Special Public Notice issued by the Corps in October 1987 proposed the exercise discretionary authority and elimination of the use of Nationwide Permit Number 26 for discharges into all vernal pools within the Los Angeles District of the Corps. The Corps found that due to the cumulative loss to vernal pools, the use of the Nationwide permit for this wetland type is no longer consistent with the regulations promulgated pursuant to Section 404 of the Clean Water Act (Corps 1989). The Service has been working with the City for 4 years to revamp the Preservation Frogram to provide adequate in-kind mitigation for the loss of vernal pools prior to any additional destruction.

Since 1978, the Service has completed a variety of formal endangered species consultations on private, State, and Federal projects impacting vernal pools harboring the San Diego mesa mint. A brief review of the effectiveness of compensation serves to underscore the uncertainty of the long-term viability of the continued existence of the mesa mint on privately-owned property. Even those properties with required "preserves" remain at risk and, therefore, potentially part of additional cumulative effects. The status of privately-owned vernal pools that were the subject of a formal consultation, are shown in Table 1.

Several property owners have requested a second consultation or permit to allow development the land supporting vernal pools previously preserved (e.g. Fieldstone-2.2 acres, Fenton-8.0 acres, Facilities-1.0). Adjacent activities, illegal dumping, and invasive non-native plants continue to degrade the habitat quality of the vernal pools which occur within these areas. Long-term survival of the vernal pool ecosystem within these small privately-owned, unmanaged preserves is questionable. The proposed project includes mitigation measure which would result in a small (1.25 acres) isolated preserve with no buffers, no management provisions, and no connection to existing natural habitat.

The failure of existing protection programs (City, State, and Federal), the lack of concerted and effective habitat management, all greatly compound the cumulative adverse impacts on the mesa mint. These circumstances have contributed significantly to the substantial loss of this habitat on non-federal lands.

In conclusion, the destruction of vernal pools and populations of the mesa mint in essential habitat on non-federal lands have not been prevented nor adequately mitigated through the Preservation Program. Vernal pools on Federal lands occur on an existing operational naval air base. Most of the pools on the air base occur within an accident potential zone which creates an unavoidable risk of habitat degradation. Additional habitat losses on private lands continue to reduce the options for preservation and recovery of the mesa mint. Efforts to preserve the mesa mint, let alone recover the species, have to date been unsuccessful. Based on the present circumstances, the Service believes that recovery of this species is unlikely. Necessary steps must now be focused on preventing the extinction of the species.

REASONABLE AND PRUDENT ALTERNATIVES

"Reasonable and prudent alternatives" have been defined by regulation, as alternate actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, can be implemented consistent with the scope of the Federal agency's legal

authority and jurisdiction, that is economically and technologically feasible, and, in the Service's judgment, would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat. Subject to the conditions stated in the following paragraph, the Service believes that any of five reasonable and prudent alternatives outlined below will fulfill this mandate.

The project sponsor should be advised that in pursuing a future course of action, no vernal pools on the project site may be destroyed in preparation for the commercial development until such time as the off-site mitigation has been completed (i.e. land actually acquired) or legally binding assurances regarding the acquisition have been provided. Additionally, all alternatives that involve restoration/recreation shall include the preparation of a restoration plan by or in consultation with a biologist experienced in this field. The plan shall be reviewed and approved to the Corps in consultation with the Service. Finally, on-site preservation of vernal pools within the proposed 1.25-acre preserve or an expanded version of this preserve shall adhere to the five protective stipulations outlined in the Service's 1983 Biological Opinion and specific requirements of the City.

- 1) Preserve all vernal pools on-site, an area totaling approximately 7 acres, such that the project avoids any direct impact to vernal pools. The project would be down-scaled or clustered on the remaining 6 acres that are not part of the necessary habitat for the vernal pools. Protective fencing, adequate drainage, and native plant landscaping will be necessary to avoid adverse indirect, long-term impacts to the vernal pools.
- 2) Expand the proposed mitigation preserve to include all vernal pools on the project site that presently contain <u>Pogogyne abramsii</u> (see Figure 2) and the adjacent watershed necessary to form a contiguous preserve. The extent of the watershed will need to be determined by a precise survey that delineates the land area that drains into the pools containing the mesa mint. The unavoidable loss of unoccupied (i.e. potential <u>Pogogyne abramsii</u>) vernal pool habitat on the project site must be mitigated consistent with a) or b) described below.
 - a) Mitigate the unavoidable loss of vernal pool surface area and watershed through the substantial off-site preservation (a minimum of a 2:1 ratio of surface area of vernal pools and watershed destroyed must be preserved) of existing high quality vernal pools occurring within the known range of Pogogyne abramsii. Acceptable off-site locations include, but are not limited to, the pool complex referred to as Db (D5-8) on the north side of Carroll Canyon. A maintenance and monitoring plan must be prepared in conjunction with this preservation effort.

OR

b) Mitigate the loss of vernal pool surface area and watershed through the off-site preservation of an equal area (1:1 ratio) of high quality vernal pools that occur within the known range of <u>Pogogyne abramsii</u>.

Additionally, restoration/recreation of vernal pool surface area shall occur such that an equal amount of functional (i.e. viable, self sustaining population of representative vernal pool plant species) vernal pool surface area is created to offset the loss of the vernal pool surface area destroyed by the project. Adequate watershed to support the newly restored vernal pools must be included in the restoration area. Restored or enhanced vernal pools must be inoculated with <u>Pogogyne abramsii</u> seed from the closest naturally occurring source of seed, provided the Service concurs with the seed source.

- 3) The 1.25-acre preserve will remain as presently proposed, however, the area within preserve that has been adversely affected by the construction of the road and illegal dumping must be restored. The loss of the vernal pools which occur outside the 1.25-acre preserve (66 of the 76 pools) must be mitigated consistent with conditions, a) or b) as described under alternative 2.
- 4) The 1.25-acre preserve must remain as presently proposed, however, to mitigate the adverse impact of habitat area reduction, edge effects (as evidenced in other small vernal pool preserves; see Table 1), isolation, and habitat fragmentation, preservation of a 10-acre parcel located between the existing Caltrans vernal pool preserve and the City of San Diego's preserve on Lopez Ridge must occur. In addition, an amount of vernal pool surface area equal to that lost (outside of the 1.25-acre preserve) must be created/restored. This may occur in combination in the restorable areas of the 1.25-acre preserve, on the flat mesas of the 10-acre parcel, or at other locations found acceptable to the Service.
 - 5) No on-site preservation (i.e. the proposed 1.25-acre preserve) would occur. All mitigation would be accomplished off-site consistent with conditions a) or b) as described under alternative 2.

Additionally, all preservation/recreation (Alternatives 1-5) mitigation must include the responsibility for fencing, land title, maintenance, and monitoring as described below:

- a) With alternatives 2, 3, and 4 all vernal pool seed material and duff must be salvaged (i.e. physically removed from the project site) and provided to a recipient acceptable to the Corps in consultation with the Service.
- b) Permanent fencing must be provided for the vernal pool preserve. The fence must consist of a 6-foot-high chain link, supported by galvanized pipe mounted in concrete located such that it restricts access of motorized vehicle, domestic animals, and mountain bikes. Signs must be posted to indicate the preserve boundaries.

- c) A detailed plan documenting proposed restoration/pool creation must be prepared and include the use state-of-the-art techniques such as those applied in similar efforts undertaken by San Diego State University, Caltrans on Del Mar Mesa, and others. The new pools must be designed to mimic natural pools and seeded with material collected from nearby pools, if material can be collected without damaging the donor pool. The pool creation/restoration and re-vegetation plan, approved by the Service, must be prepared and implemented in consultation with a biologist with experience in vernal pool rehabilitation.
- d) Fee title to the preserve area must be given to a management entity, approved by the Service, within 2 years of issuance of the Corps permit. The Corps or the Service must have the legal right to possess the mitigation property, if ownership or management of the property is desired, a management entity has not been found or the developer fails to fulfill this condition. A management entity responsible for control of the preserve includes, but is not limited to, The Nature Conservancy, the State, the Service, or the University of California Reserve System. The obligation of long-term maintenance and monitoring must also be transferred to the management entity.
- e) Maintenance of the preserve must include the removal of any trash, exotic or invasive plant species, construction debris and other foreign material from the property, and, if necessary, restoration of disturbed areas. The property must be inspected on a regular basis at least four times throughout the year to monitor the condition of the vernal pools, maintain the fence, and establish remedial measures necessary to maintain the habitat in a natural condition.

CONSERVATION RECOMMENDATIONS

Section 7 (a) (1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. The term "conservation recommendations" has been defined as suggestions of the Service regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information.

- 1) Amend the agreement with the City of San Diego regarding the Preservation Program such that:
 - a) No further vernal pool losses must be allowed without permanent protection of existing vernal pool areas within ecologically defendable preserve boundaries.

- b) No loss of vernal pools may occur until a mitigation site has been acquired or legal assurances for permanent protection have been provided.
- 2) Field inspect existing vernal pool mitigation sites required as permit conditions on previous Corps permits issued pursuant to the Clean Water Act. Evaluate the effectiveness of the mitigation and enforce any violation of the permit conditions.
- 3) Amend existing Corps permits that were conditioned to require vernal pool preserves to include and carry out a written management program for the vernal pool mitigation sites or to provide, in fee title, the mitigation lands to an acceptable third party to be managed in perpetuity for the conservation of the vernal pool resource.

This concludes formal consultation on this action. Re-initiation of formal consultation is required if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion, and/or if a new species is listed or critical habitat designated that may be affected by the action.

Sincerely,

Acting Regional Director

Don Western

Enclosures

Table 1. SUMMARY OF NON-FEDERALLY OWNED VERNAL POOLS SERIES IDENTIFIED BY THE SERVICE AS ESSENTIAL TO THE SAN DIEGO MESA MINT

Loca		creage	VPH Lost Via <u>tion</u> <u>Land</u>	owner <u>Risk</u>	Ongoing	Series
H a-d	Del Mar Mesa	60.6	11.4p	Many* Caltrans	dumping, vandalism, vehicle	
Bab	Lopez Ridge	10.7	No Consult	City Caltrans	unauthorized discharge, vehicle access	
Ca	Mira Mesa	2.2	5.61	Field- stone	dumping, propose to develop, irrigation	
Db	Carroll Mesa	6.1	No consult	Fenton	dumping	
pΙ	Miramar	0	12.9c			
pII	Miramar	8.0	2.3a	Fenton	dumping, propose to develop	
iII	Miramar	1.25+	6.0m	Baker	dumping	
iII	Miramar	0.56	2.6f	Ford	irrigation, shading	
iII	Miramar	1.0	0k	Facil- ities	propose to develop	
-12	Other Pools	.3.	56.6	(****)	dumping, weed invasion	
NI, NII	Montgomery	77.0	10.7	City of San Diego	irrigation, weed invasion,	
		~	_		runway extension	
	Total	167.4	109.2		17	

* Caltrans/FHWA has purchased approximately 90 acres of pool and non-pool habitat on Del Mar Mesa and 6.5 acres of pool habitat on Lopez Ridge resulting from the construction of Interstate 15, (79-F-41 and 81-F-127) and State Route 52 (83-F-10).

** VPH - Vernal Pool Habitat

- + Proposed mitigation area, ongoing consultation
- a ACD/Gentry (80-F-73)
- c Chillingworth (80-F-48)
- f Ford Motor (80-F-71)
- k Facilities Development (80-F-90)
- 1 Lyon Company (80-F-66)
- m Midway Drive-In (82-F-108)
- p San Diego Vernal Pool Preservation Program (80-F-69)

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- Zedler, P. H. 1987. The ecology of southern California vernal pools: a community profile. U.S. Fish and Wildlife Service. Biol. Rep. 85(7.11). 136 pp.

Figu l. Location of vernal pool preserve within the proposed Miramar Road Auto Center

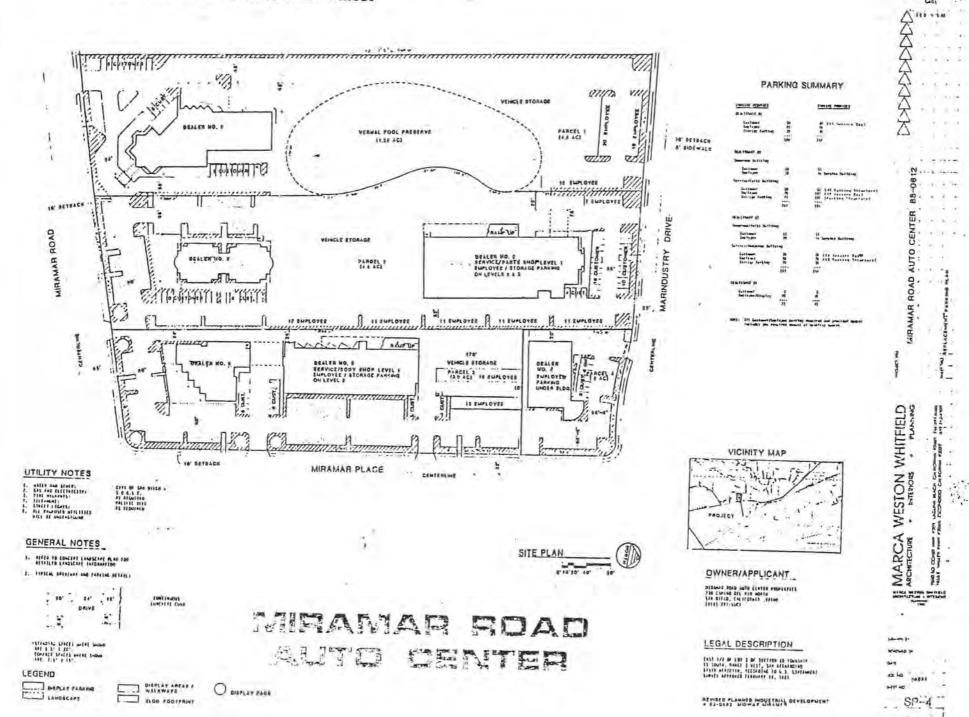
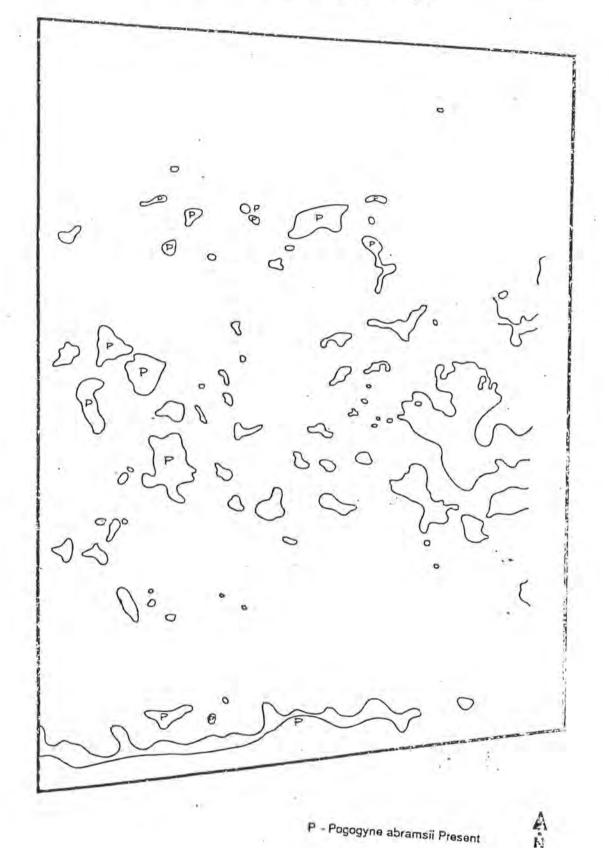


Figure 2. Location of vernal pools and the San Diego mesa mint on the Miramar Road Auto Center site.



Baker Property - Miramar Rd. Vernal Pools

1"= approx. 125"

APPENDIX C U.S. ARMY CORPS OF ENGINEERS PERMIT



United States Department of the Interior FISH AND WILDLIFE SERVICE

1002 N.E. HOLLADAY STREET PORTLAND, OREGON 97232-4181

January 22, 1990

Colonel Charles Thomas District Engineer, Los Angeles District U.S. Army, Corps of Engineers P.O. Box 2711 Los Angeles, California 90053-2325

Grek -

Dear Colonel Thomas:

This responds to your request, dated August 29, 1989, and received September 5, 1989, for formal consultation (FWS/LNFO 1-1-82-F-108R) with the U.S. Fish and Wildlife Service (Service) pursuant to Section 7 of the Endangered Species Act (Act) of 1973, as amended, regarding a permit action that would authorize commercial development impacting vernal pools in San Diego, California. At issue are the effects of the proposed project on the federally listed endangered species, the San Diego mesa mint (Pogogyne abramsii).

This Biological Opinion is based on information provided in the Vernal Pool Assessment Miramar Road Vernal Pools Portion of I Complex, "Midway Pools", (ERC Environmental and Energy Services Co. 1989), Formal Endangered Species Consultation on Permit Application No. 82-50 RA-Midway Drive-In Corporation (U.S. Fish and Wildlife Service 1983), the Draft Recovery Plan for the San Diego Mesa Mint (U.S. Fish and Wildlife Service 1984), the report titled San Diego Vernal Pools: Recent and Projected Losses, Their Condition and Threats to Their Existence, 1979 - 1990 (Bauder 1986), and information in our files which includes pertinent reports and published literature, field investigations, and conversational records.

The proposed project was originally authorized by a Nationwide permit pursuant to 33 CFR section 330.5 (a) (26) (#82-50) in 1983 after being evaluated in a formal endangered species consultation (1-1-82-F-108). At that time, the Service found that the project, which included the preservation of 1.25 acres of vernal pool habitat and five protective measures, was not likely to jeopardize the continued existence of the San Diego mesa mint. The project was never developed due to economic circumstances (Brinton 1988) and the permit was subsequently revoked. A new permit is now needed for the project to be in compliance with the Clean Water Act and the developer reapplied on September 2, 1988.

Reinitiation of formal consultation was deemed to be necessary due to the new permit application and the occurrence of additional information regarding both the status of the mesa mint, (on-site and range-wide) and the long-term viability of small preserves.

BIOLOGICAL OPINION

It is the Service's biological opinion that the proposed project is likely to jeopardize the continued existence of the San Diego mesa mint. This finding is based upon the incremental, adverse direct and indirect impacts associated with the development on the San Diego mesa mint and the accrued adverse impacts that have occurred throughout the range of this species. The loss and degradation of approximately 6 acres of the remaining 8.5 acres of the iII (I) vernal pool series (as defined by the California Department of Fish and Game (Department) in Beauchamp 1979 and Bauder 1986) would result. The mesa mint naturally occurs only in vernal pools. Additionally, the long-term viability of the remaining 1.25-acre preserve to support the mesa mint is questionable. The iII vernal pool series on-site consists of 7 acres of high quality habitat determined in the draft Recovery Plan (Recovery Plan) for the San Diego mesa mint (Fish and Wildlife Service 1984) to be essential to the conservation and recovery of this species.

PROJECT DESCRIPTION

The project would include the development of a 12.96-acre site for commercial purposes; specifically, an automobile retail sales and service facility. The site is located on Mira Mesa in the northwest portion of the City of San Diego, San Diego County, California. The project, as proposed, would create four lots for auto dealership use (Figure 1) and include buildings covering 86,000 square feet (Brinton 1988). Grading would be a cut and fill operation over all but 1.25 acres of the site.

EFFECTS OF THE PROPOSED ACTION ON LISTED SPECIES

Species Account

The San Diego mesa mint occurs only in vernal pools currently limited to scattered locations over an approximately 20-square-mile area located on Kearny Mesa, Mira Mesa, and Del Mar Mesa in the western portion of San Diego County, California. The life cycle of this species is dependent on the function of the vernal pool ecosystem. Typical vernal pools in San Diego County are shallow (i.e. 10-50 cm), usually small (i.e. from 1 to several hundred meters in width), seasonally flooded and located on flat mesas that may contain broad, low hummocks known as mima-mounds (Zedler 1987). The pools usually occur in groups or complexes rather than singularly.

Winter rains fill the shallow depressions and the resulting pools are sustained for varying periods of time because these depressions are underlain by an impervious substrate which results in formation of a perched water table (Zedler 1987). Mesa mint seeds germinate with the first significant fall and winter rains. As the season progresses, temperatures increase and rainfall declines, resulting in evaporation of water. More rapid growth of young plants is stimulated as the pools begin to dry out. Flowering commences in May and continues through June or July, and by early to mid-summer the pools