

**CHAPTER 8.0  
IMPLEMENTATION**

## **8.0 IMPLEMENTATION**

This section describes the processes necessary to gain entitlements for individual projects within the Specific Plan area, in addition to describing the processes necessary to amend the Specific Plan document. Figure 23 is a flow chart depicting the development review process.

### **8.1 SUBMITTAL PACKAGES TO JURUPA HAVEN AIRPORT CENTRE**

Any proposed subdivision of any parcel or the construction of any improvement with the JURUPA HAVEN AIRPORT CENTRE must first be approved by ONT Crossroad's Approving Agent. The Approving Agent shall not unreasonably withhold approval of submittals. The approving Agent shall be conclusively deemed to have given approval unless express written notice specifying in reasonable detail items that are disapproved is given within 45 days after receiving submittal. The Approving Agent shall ensure approval on one set of submittal documents and return same to the applicant.

All submittals must demonstrate consistency with the JURUPA HAVEN AIRPORT CENTRE Specific Plan goals and objectives as expressed in Chapter 1.0.

In addition, submittals must be consistent with the land use criteria (Chapter 3.0) and the Specific Plan's design regulations (Chapter 4.0).

### **8.2 DEVELOPMENT SITE PLANS/AMENDMENTS**

Development Site Plans and/or amendments to the Plan shall be subject to review and approval by the City of Ontario Development Advisory Board (DAB). Development Site Plans, if approved by the JURUPA HAVEN AIRPORT CENTRE Approving Agent, will be reviewed and approved by the DAB, prior to issuing building permits. However, should the submittal warrant an amendment to the JURUPA HAVEN AIRPORT CENTRE Specific Plan (beyond a minor determination of use or similar action), the DAB will review the request and forward it onto the City Planning Commission and City Council for a final decision.

### **8.3 ENVIRONMENTAL EVALUATION - NOTICE OF INTENT**

An Environmental Evaluation/Notice of Intent is required by the City of Ontario with the submittal of any preliminary building or site plans. The City of Ontario's planning staff reviews all Environmental Evaluations prior to the DAB meeting on Development Site Plans.

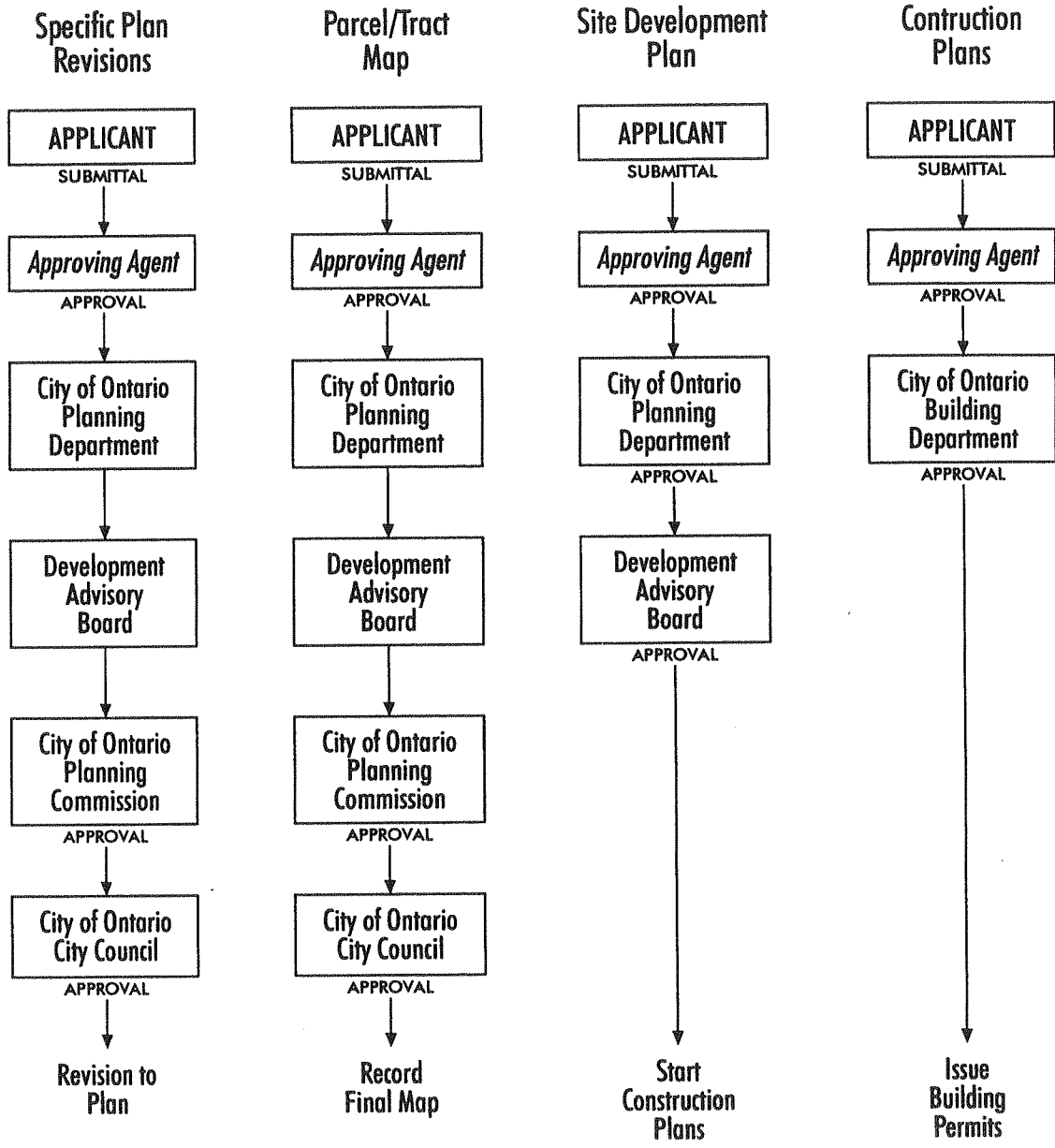


Figure 23



**APPENDIX A**

**DELHI SANDS FLOWER-LOVING FLY PRESENCE/ABSENCE  
SURVEY REPORT**

**Delhi Sands Flower-loving Fly  
Presence / Absence Survey Report  
Carter Jurupa-Haven and Sixty-Haven Sites  
1998 Season**

Submitted to:

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**December 8, 1998**

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## INTRODUCTION

Thomas Olsen Associates, Inc. was retained by James E. Carter to conduct a presence/ absence survey for the Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) (Delhi fly) on two parcels comprising 20 acres in Section 35, Township 1S, Range 7W and Section 1, Township 2S, Range 7W (USGS 7.5' series Guasti quadrangle) within the Delhi Fly Ontario Recovery Unit in the City of Ontario, California (Figure 1). The Delhi fly was listed as endangered under the Federal Endangered Species Act of 1973, as amended (Act) on September 23, 1993. This report is formatted in accordance with the U.S. Fish and Wildlife Service (Service) protocol (USFWS, 1996).

The Delhi sands flower-loving fly is in the dipteran family Mydidae, which includes some of the largest flies in North America. It is approximately one-inch long, orange-brown in color, with dark brown oval spots on the upper surface of the abdomen. The Delhi fly is a rapid flyer and can hover like a hummingbird while using its long proboscis to take nectar from flowers. The life cycle of the Delhi fly makes its observable presence (adult phase) temporary and short. The adult flight period lasts for several weeks in August and September.

Fine unconsolidated sand is required for oviposition (egg laying) as females insert their abdomens deep into the sand during this process (Rogers and Mattoni, 1993; Kiyani, 1995). The larval portion of the Delhi fly's life cycle is largely unknown. Larval development apparently takes place in the sand and is presumed to take either one or two years (USFWS, 1997). Soil disturbances associated with agricultural activities and urban development are primary causes of habitat loss and degradation (USFWS, 1997).

The historic range of the Delhi fly is estimated to have been approximately 40 square miles in northwestern Riverside and southwestern San Bernardino Counties. Habitat has been lost and fragmented by agricultural activities including cultivation and manure dumping, urbanization, sand-mining activities, illegal dumping, off-road vehicles, and invasion of non-native plants (USFWS, 1997). It is estimated that the Delhi fly's present distribution is less than 2% of its former range and that the total adult population of the Delhi fly is on the order of only a few hundred individuals (USFWS, 1997).

Known Delhi fly populations occur in isolated pockets of habitat located in extreme southwestern San Bernardino County and northwestern Riverside County, California. Known populations are surrounded by urban development and invasive exotic vegetation (USFWS, 1997).

Delhi fly habitat is limited to areas that include Delhi fine sand, an aeolian (wind deposited) soil type. Characteristic Delhi fly habitat includes a variety of plants, in particular: California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), telegraph weed (*Heterotheca grandiflora*), annual bursage (*Ambrosia acanthicarpa*), and other grass and forb species (USFWS, 1996). Vegetative cover is ideally sparse, (0 to 40 percent cover) or can be absent (in blowout areas of dune formations and non-vegetated sandpits). Since the listing of the species, Delhi flies have been found in disturbed habitats such as vineyards, disked fields, powerline easements and flood control basins.

The Service has identified the presence of Delhi sands as the baseline criterion for determination of suitable or potentially suitable habitat for the species. The Service's protocol requires two consecutive years' survey effort with negative results to demonstrate absence of the species from a site (USFWS, 1996). The adequacy of the survey effort is subject to the review of the Service (USFWS, 1996). The site was also surveyed by Olsen Associates during the 1997 emergent season (Thomas Olsen Associates, Inc. 1997). The 1998 survey is the second in the two-year protocol. The acceptability of the survey results are subject to the review and approval of the Service.

## METHODS

Survey protocol requires two site visits weekly from August 1 through September 20 (USFWS, 1996). The survey area consists of two parcels (Figure 3). One parcel is located at State Route 60 and Haven Avenue and consists of 14.5 acres. The other parcel is located at Jurupa and Haven Avenues and consists of 5.5 acres. Surveys were conducted twice weekly from August 1 to September 20, 1998. The parcels were surveyed consecutively from either 1000 to 1200 or 1200 to 1400. The order in which the parcels were surveyed was alternated. The surveys were conducted by John Dicus, Marco Metzger and Karin Cleary-Rose in compliance with protocol under permit number PRT-787645 (and permit number PRT-839960 for John Dicus). Exact survey times and weather conditions are presented in Table 1 of this report. They can also be found in the copies of the field notes appended to this report (Appendices C and D).

The parcels were walked at a slow pace in transects 10 to 15 meters apart. Sandy areas (including roads, off-road vehicle and sheep trails, and areas between vine rows) were examined to detect resting or cruising flies and discarded pupal cases. Grapevines, flowering plants, plant stems, and the air space above flowering plants and grapevines were carefully examined in an effort to detect perched or hovering Delhi flies.

Plant and animal species identified were recorded (Tables 2a and 2b). Habitat characteristics on the site were recorded. Site photographs were taken to record the condition of the site during the survey period (Appendix B). Vegetative cover was estimated visually.

Temperatures were measured with a mercury thermometer or digital thermocouple. Wind speed and cloud cover were estimated. Weather data was measured at the start and end of each day's survey and recorded on the data sheets.

## SITE DESCRIPTIONS

### Jurupa - Haven Site


The approximately 5.5-acre Jurupa-Haven parcel is located north of Mission Boulevard, south of Jurupa Avenue, west of Haven Avenue, and east of Turner Avenue in Ontario, California (Figure 3). The site is within the historical range of the Delhi fly (USFWS, 1997). It is zoned



### CERTIFICATION

I certify that I have read the focused survey report and exhibits titled, "Delhi Sands Flower-loving Fly Presence/ Absence Survey Report, Carter Sites, 1998 Season," for the approximately 5.5-acre "Jurupa-Haven" site and the approximately 14.5-acre "Sixty-Haven" site in the City of Ontario, San Bernardino County, California, and concur with the contents and representations therein.

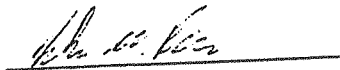
Permittee Name, Signature and Date:

  
Karin Cleary-Rose

12-28-98  
Date

  
Marco Metzger

12-22-98  
Date

  
John Dicus

12-16-98  
Date

**DELHI SANDS FLOWER-LOVING FLY  
PRESENCE/ABSENCE SURVEY (1997)**

Submitted to:

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November 4, 1997

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## INTRODUCTION

Thomas Olsen Associates, Inc. was retained by James E. Carter to conduct a presence/absence survey for the Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) (Delhi fly) on 5 ½ acres in Section 1, Township 2S, Range 7W, and 14 ½ acres in Section 35, Township 1S, Range 7W in San Bernardino County, California (Figure 1). The Delhi fly was listed as an endangered species on September 23, 1993 under the Federal Endangered Species Act of 1973 as amended (ESA). This report is prepared in accordance with the protocol set forth by the United States Fish and Wildlife Service (December 30, 1996).

## BACKGROUND

The United States Fish and Wildlife Service (Service) has identified the presence of Delhi sands as the baseline criterion for determination of suitable or potentially suitable habitat for the species (pers. comm. Jeff Newman, 18 July 1995 and Chris Nagano, 5 August 1996, United States Fish and Wildlife Service). Delhi soils are a necessary element of suitable habitat. However other characteristics, including vegetation (type, density) are necessary to support the species. Undeveloped Delhi soils are often not occupied.

### Biology

The life cycle of the Delhi fly makes its observable presence (adult phase) on any site temporary and short. Adults are emergent during the period from August 1 to September 20. The specific emergent dates vary from year to year. Adult Delhi flies fly low, usually a meter (3 feet) or less above the ground, and frequently land on the surface (Ballmer 1989, Cazier 1985, Kiyani 1995, 1996). Eggs are deposited in the sand. The details of the larval life stage are not known.

Sparse (less than 40 percent cover) native vegetation is thought to be important to the Delhi fly. Dominant native plant species on known occupied sites include California buckwheat (*Eriogonum fasciculatum*), croton (*Croton californicus*), and telegraph weed (*Heterotheca grandiflora*). Additional native plants found within occupied Delhi fly habitat include annual bur-sage (*Ambrosia acanthicarpa*), fiddleneck (*Amsinckia intermedia*), Eriastrum (*Eriastrum sapphirinum*), Thurber's buckwheat (*Eriogonum thurberi*), buckwheat sp. (*Eriogonum gracile*), and Lessingia sp. (*Lessingia glandulifera*).

## SITE DESCRIPTION

Two sites were surveyed for Mr. Carter, the Jurupa-Haven site and the Sixty-Haven site. The Jurupa-Haven site is located north of Mission Boulevard, south of Jurupa

Avenue, west of Haven Avenue, and east of Turner Avenue, Ontario, California (Figure 3). The site is a cultivated vineyard. The Sixty-Haven site is located north of Interstate 60(I-60), south of Mission Boulevard, west of Milliken Avenue, and east of Haven Avenue, Ontario, California (Figure 3). The site is vegetated by non-native weedy species and soils show evidence of organic material (cow manure spread for dust control). Both sites are mapped as Delhi sands, (U.S. Department of Agriculture, Soil Conservation Service. 1980. Soil Survey of San Bernardino County Southwestern Part, California [Figure 2]).

Vegetation on the Jurupa-Haven site is dominated by grape vines. The open spaces along the edges and between the vineyard rows support sparse non-native weedy species. These species include Bermuda grass (*Cynodon dactylon*) and short-pod mustard (*Hirschfeldia incana*). No California croton (*Croton californicus*) or California buckwheat (*Eriogonum fasciculatum*) were identified on the site. There is open sand between the vineyard rows and along the dirt roads.

Habitat on the Sixty-Haven site is dominated by non-native ruderal plant species with sparse native plant growth thinly distributed over the site. Dominant non-native plant species identified on the site include: riggut brome (*Bromus diandrus*), red brome (*Bromus madritensis ssp. rubens*), wild oats (*Avena sp.*), red-stem filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), Golden crownbeard (*Verbesina encelioides*), and short-pod mustard (*Hirschfeldia incana*). Native species found on the site include weedy colonizing species such as scattered annual bur-sage (*Ambrosia acanthicarpa*). No California croton (*Croton californicus*) or California buckwheat (*Eriogonum fasciculatum*) were identified on the site. Open soils exist on the site but are heavily disturbed with organic materials for dust control purposes.

## METHODS

Survey protocol requires two site visits weekly from August 1 through September 20 (December 30, 1996). Surveys were conducted three times weekly from August 8 to August 22 and twice weekly from August 23 to September 20, 1997. This variation in survey protocol was approved by Mary Beth Woulfe of the Service (pers. comm. M. B. Woulfe to Karin Cleary-Rose, Olsen Associates August 13, 1997). Staff biologists surveyed between the hours of 10:00 and 14:00 in compliance with the protocol. Surveyors walked at a slow pace in transects 10 to 15 meters apart. No more than 50 acres were surveyed by a single person per day. Plant and animal species identified were recorded (Appendix A). Habitat characteristics on the site were recorded. Site photographs were taken to record the condition of the site during the survey period (Appendix C).

## **RESULTS AND CONCLUSIONS**

No Delhi flies were detected were detected during the 1997 survey season. Plant and animal species identified on the site are listed in Appendix A.

## BIBLIOGRAPHY

- Ballmer, G. 1989. Petition to the USFWS to list *Rhaphiomidas terminatus abdominalis* as endangered.
- Cazier, M. A. 1985. A revision of the North American flies belonging to the genus *Rhaphiomidas* (Diptera, Apioceridae). Bulletin of the American Museum of Natural History 182:181-263.
- Federal Register. 1993. Determination of Endangered Status for the Delhi Sands Flower-loving Fly. Final Rule. Vol. 58, No. 183, Thursday.
- Hickman, James C. 1993. The Jepson Manual: Higher Plants of California. Berkeley and Los Angeles: University of California Press.
- Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Resources Agency, Department of Fish and Game, 156 pp.
- Jameson, E. W. Jr. 1988. California Mammals. University of California Press Berkeley.
- Kiyani Environmental Consultants, Inc. 1995. Principal Investigator's Annual Report Delhi Sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*) Studies At Colton, California. Unpublished Report.
- Kiyani Environmental Consultants. 1996. Principal Investigator's Second Annual Report Delhi Sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*) Studies At Colton, California. Unpublished Report.
- Peterson, Roger Tory. 1990. A Field Guide to Western Birds. Boston: Houghton Mifflin.
- Rogers R. and R. Mattoni. 1993. Observations on the Natural History and Conservation Biology of the Giant Flower-loving Flies, *Rhaphiomidas* (Diptera, Apioceridae). unpublished ms on file at the USFWS, Carlsbad, California.
- Stebbins, Robert C. 1985. A Field Guide to Western Reptiles and Amphibians. Boston: Houghton Mifflin.
- Thomas Olsen Associates. 1996. Results and Analysis of the 1996 Delhi Sands Flower-loving Fly Survey Empire Towers Site, Ontario, CA.
- U.S. Department of Agriculture, Soil Conservation Service. 1980. Soil Survey of San Bernardino County Southwestern Part, California.
- U.S. Fish and Wildlife Service. 1996. Technical/Agency Draft Recovery Plan for the Delhi sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*) U.S. Fish and Wildlife Service, Portland, OR. 44 + pp.
- U.S. Fish and Wildlife Service. Dec. 30, 1996. Interim General Survey Guidelines for the Delhi sands Flower-loving Fly. U.S. Fish and Wildlife Service, Carlsbad, CA.

Figures and Appendices



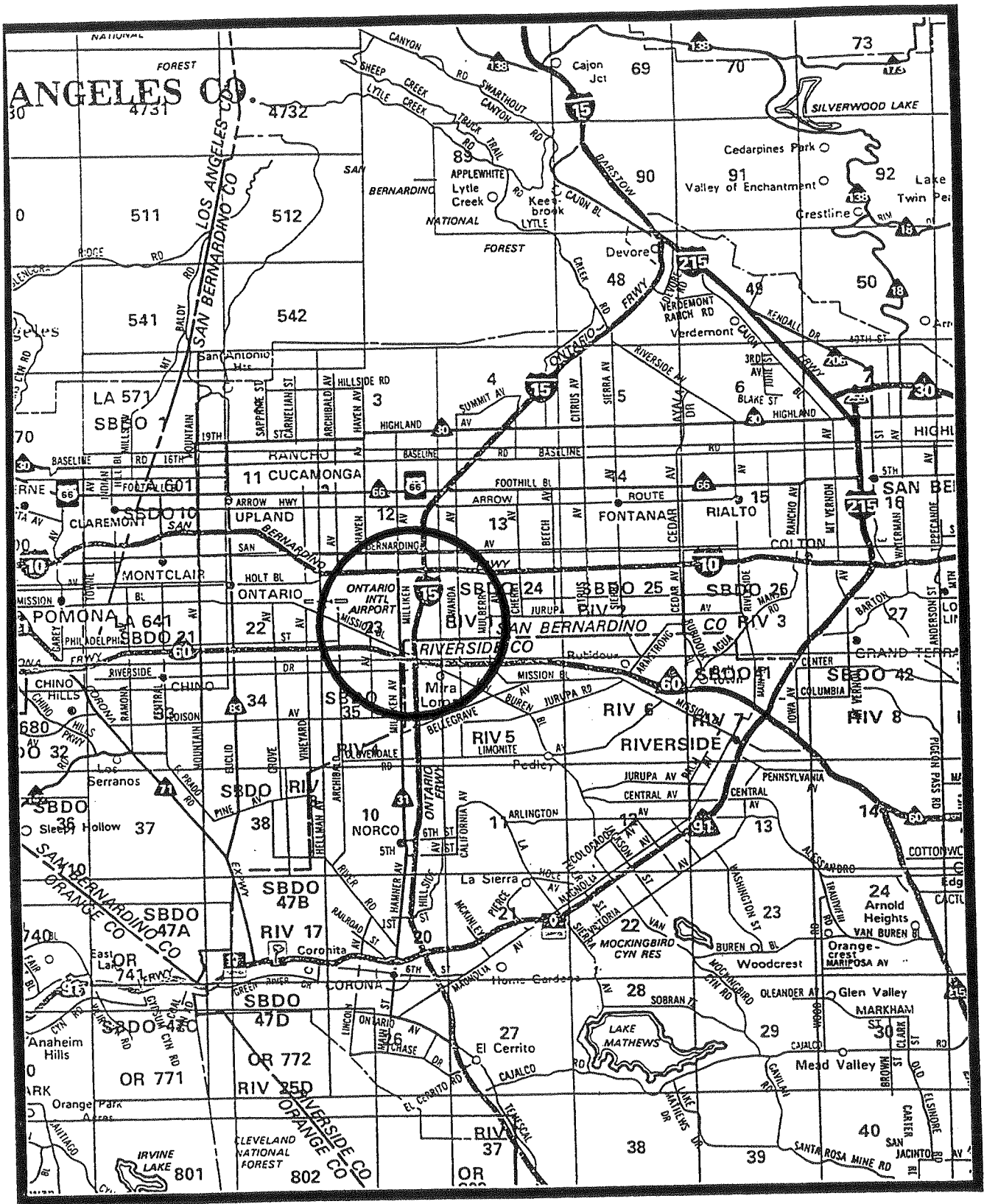


Figure 1. Site Vicinity Map  
 Source: The Thomas Brothers Guide, 1995 Edition.

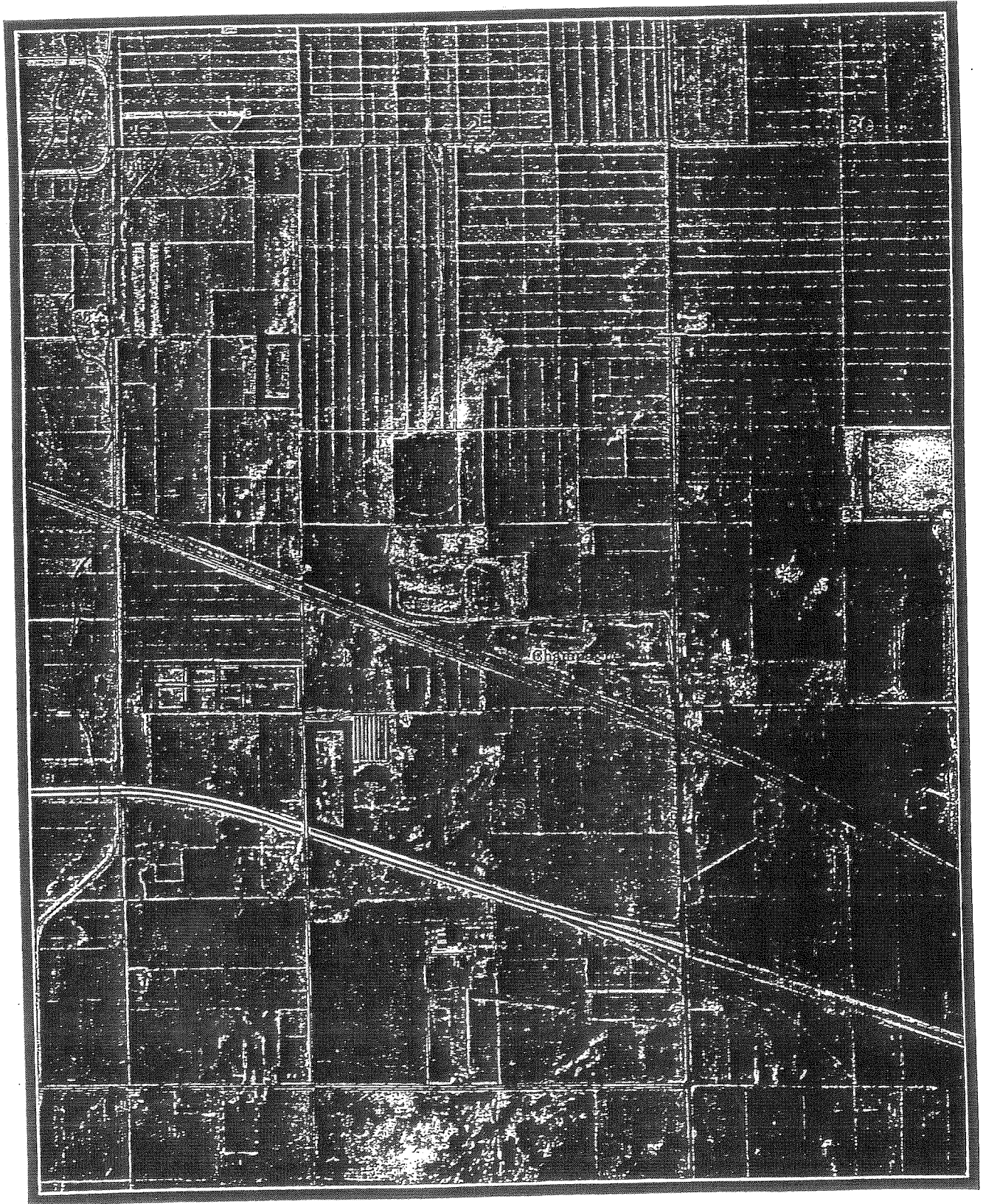


Figure 2. USDA Soil Conservation Service Map

Source: USDA Soil Survey of San Bernardino County, Southwestern Part, California, 1980

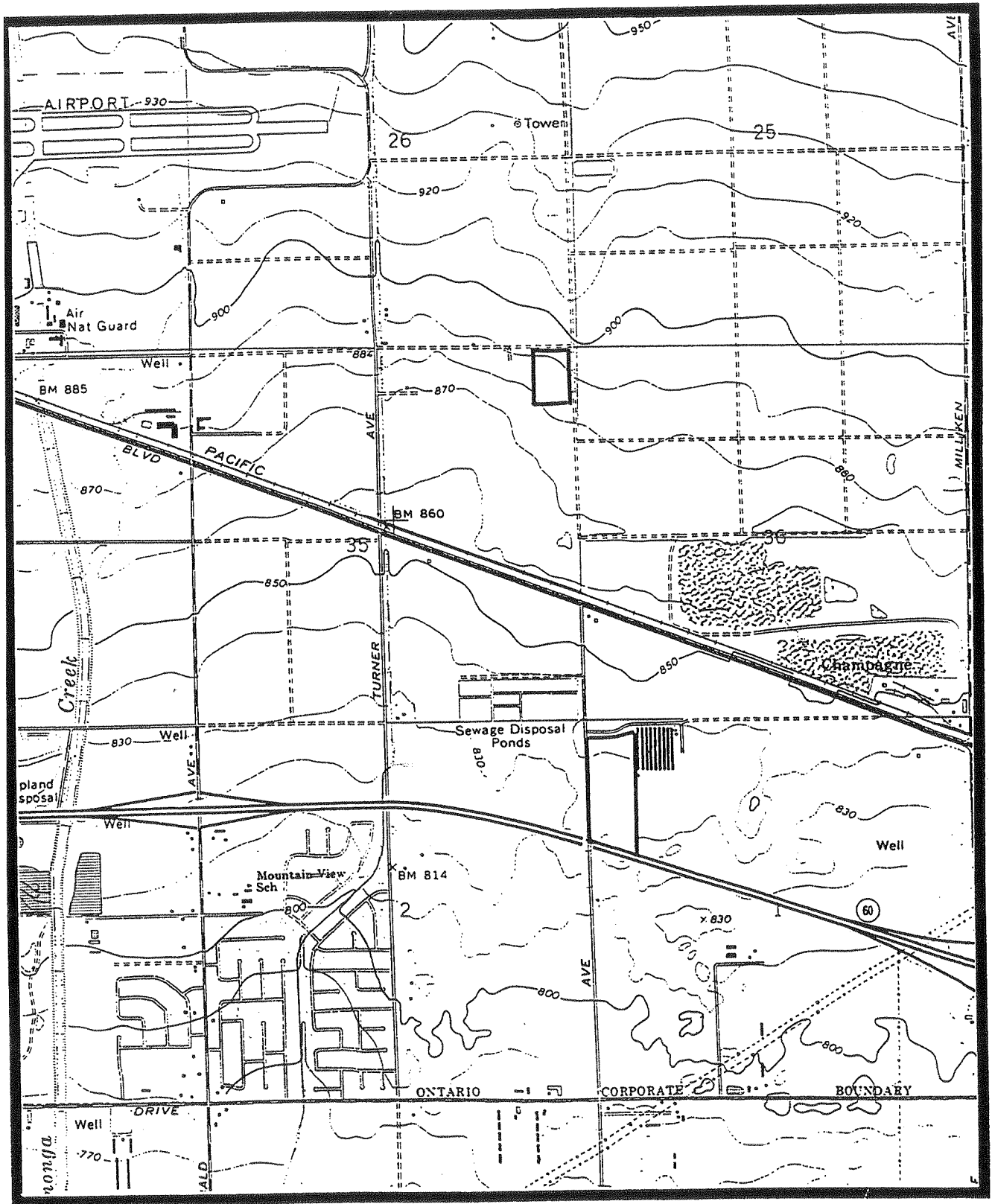


Figure 3. Site Map

Source: USGS Guasti 7.5' Quadrangles

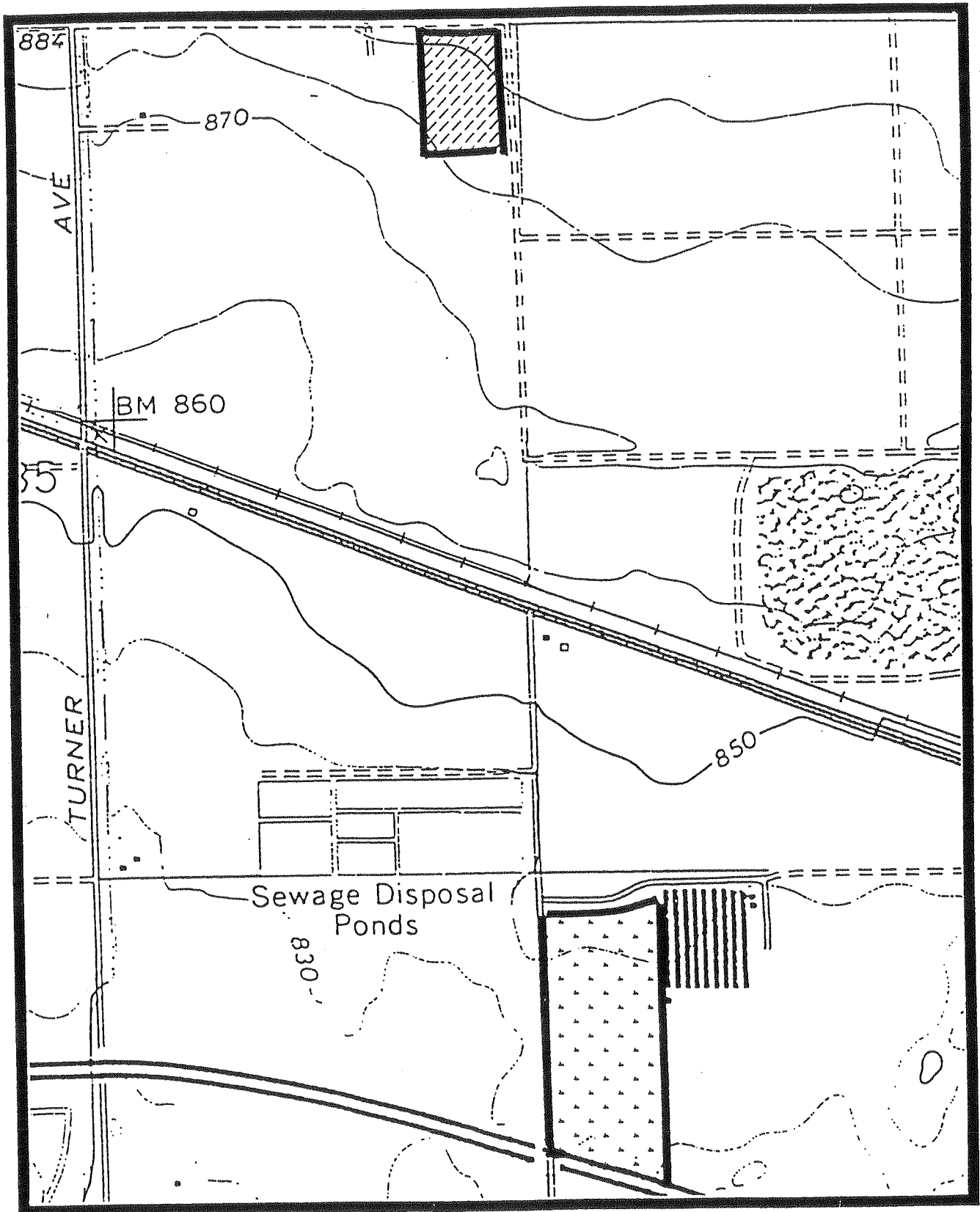

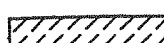


Figure 4. Plant Communities Map

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Non-Native Grasses with Heavy Grazing
- 
Cultivated Grape Vineyard