5.6 HAZARDS

5.6.1 INTRODUCTION

This section discusses potential hazards associated with Chino Airport, hazardous waste, and other risks. The plan area is currently affected by a variety of potential hazards, including airport operations and regulations related to the Chino Airport, identified hazardous materials, vector control issues due to the area's intensive dairy use, and electromagnetic fields caused by existing overhead electrical lines.

5.6.2 EXISTING CONDITIONS

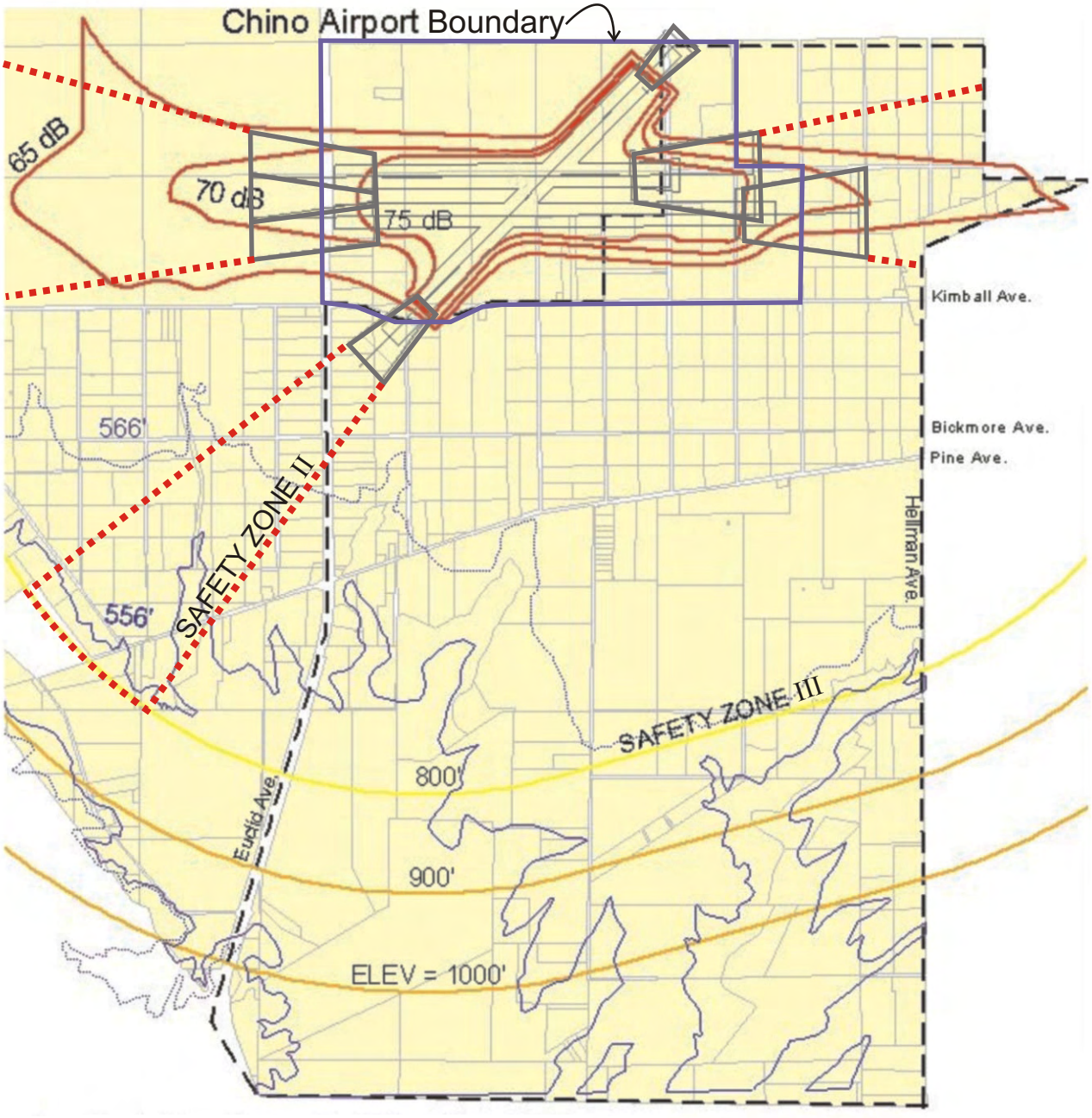
Airport Operations and Regulations

Chino Airport includes approximately 1,150 acres bound by Euclid Avenue, Merrill Avenue, Walker Avenue and Kimball Avenue, north of the plan area. Portions of the airport runway extend into the proposed plan area north of Kimball Avenue. The airfield is classified as a General Utility (GU) airport in the City of Chino, and is operated by the San Bernardino County Department of Airports. The airport is currently planned for classification as a Basic Transport Airport in the National Plan of Integrated Airport Systems (NPIAS) and is considered a reliever airport for John Wayne Airport general aviation in Orange County, and a future reliever airfield for business jets now flying out of Ontario Airport.[1] Currently over 200,000 annual aircraft operations and 940 aircraft are based at Chino Airport, the 30th busiest airport in the nation.[2]

The airport currently operates three (3) runways—Runways 3-21 (6,222 feet long, 150 feet wide), 8L-26R (4,858 feet long, 150 feet wide), and 8R-26L (7,000 feet long, 150 feet wide) (Exhibit 5.6-1). Runway 8R-26L is a recent east-west addition to accommodate current and future aircraft fleet mixes, including business jets and selected larger aircraft (e.g. Boeing 727's). The new runway has stimulated demand for new hangar facilities, tie-downs and airport-serving businesses, and the potential for development of residual airport property for commercial and/or industrial/warehouse-type uses. Operations on the crosswind Runway 3-21 represent only about 5% of all airport operations, and this figure is likely to decline further in the future.

[1] Communication with Ken Nebrig, former Chino Airport Manager (3/00)

[2] ibid; Ken Nebrig (3/00)



SOURCE: The Planning Center

Michael Brandman Associates

Exhibit **5.6-1**
Airport Noise & Safety Zone Overlay

The County Department of Airports is initiating a Chino Airport Master Plan Update, anticipated to begin in the summer of 2001, and to take one year to complete. As a result, it is anticipated that the master plan update will be adopted well after adoption of The Preserve Specific Plan, and will be coordinated with the adopted land use of the Specific Plan. The Airport Master Plan Update will consider potential airport expansions, possibly including further runway extensions to the east, and may evaluate airport-related development potential on 300-400 acres of available land currently in cultivation within the airport boundaries. Current adopted airport noise contours and safety zones will be reviewed in light of projected fleet mix changes to account for increased business jet usage, and increased annual operations.[3]

Airport Comprehensive Land Use Plan and Related Safety Zones

Operation of Chino Airport creates noise and potential safety impacts to the surrounding vicinity. As required by state law, an Airport Comprehensive Land Use Plan (ACLUP) was prepared and adopted in 1992 which delineates referral zones surrounding the airport and defines special land use requirements and development limitations which are generally described below and in the Chino Airport Land Use Compatibility Matrix (Table 5.6-1).

The ACLUP has identified special review procedures for development projects located within the operational sphere of the Airport. The provisions of the review are listed below.

Runway Protection Zone (RPZ)/Referral Area "A". This RPZ, formerly known as the runway clear zone, is located both within and extending outside of the immediate confines of the airport facility and severely restricts land use to only uses of low intensity, such as agriculture and golf courses. FAA Circular 150/5300-13 indicates it is desirable to clear all objects from the RPZ, which is trapezoidal in shape and centered about the extended runway centerline. The RPZ begins 200 feet beyond the end of the runway area usable for takeoff and landing. Some uses are permitted within the RPZ provided they do not attract wildlife and are outside the runway Object Free Area (OFA), which lies wholly within the RPZ. The OFA is defined as a two (2) dimensional ground area surrounding runways taxiways, and taxilanes which is clear of objects except for those objects whose location is fixed due to their function. Land uses prohibited from the RPZ include residences and places of public assembly. The latter include churches, schools, hospitals, office buildings, shopping centers and other uses with similar concentrations of people. Auto parking, though discouraged, may be permitted as long as it is outside of the OFA. Roads are also an allowable use within the RPZ provided that a minimum 17 foot clearance requirement with the "airport imaginary surface" is met. The airport imaginary surface is further defined below.

[3] Personal communication with Robert Olislagers, San Bernardino County Airports Division, (4/17/00).

Within the project area, portions of the RPZ for Runway 8R-26L extend approximately 1000 feet east of Walker Avenue beyond the current airport limits. This includes portions of an existing dairy. The RPZ for Runway 8L-26R is located entirely within airport owned property. The RPZ for crosswind Runway 3-21extends diagonally approximately 1000 feet into the extreme northwest corner of the plan area, near the Euclid Avenue/Kimball Avenue intersection (Exhibit 5.6-1)

Safety Zone II/Referral Area "B". This zone includes the balance of the approach and departure zones, the remaining portion of the 70 Community Noise Equivalent Level (CNEL) noise contour area, which refers to a noise level that weights evening and night time noise levels more heavily than daytime, and all of the area within the 65 CNEL noise contour area. A variety of land uses within this designated area are conditionally permitted provided they comply with the provisions of the Airport Compatibility Matrix, which can include ensuring interior noise levels are met and that above ground hazardous materials are not provided.

Agricultural land to the east of the airport and north of Kimball Avenue is located within this zone. Also included are land extending diagonally to the southwest from the terminus of the Runway 3-21 RPZ in the vicinity of the Euclid Avenue/Bickmore Avenue intersection.

Safety Zone III/Referral Area "C". This zone encompasses an oval area around the Airport extending out approximately 10,000 feet from the airport, in which aircraft accidents and exposure to noise is minimal. Certain development limitations exist in this zone, while most land use types are acceptable. This safety zone encompasses that portion of the plan area generally located south of Chino-Corona Road and Prado Lake.

Conical Surface. This area extends out an additional 4,000 feet from the perimeter of Referral Area "C". This zone is still subject to FAA Part 77 height restrictions (i.e. FAA 'Restricted Height Area'), and is identified within an overall potential impact area where it may be necessary to obtain an avigation easement alerting property owners of the existence of airport operations in the area. Within the plan area, this surface extends all the way south to approximately the Euclid Avenue/SR 71 interchange.

Imaginary Surface Over the Planning Area

Height restrictions are imposed around the airport pursuant to FAA Part 77 regulations in order to minimize obstructions to air navigation. An imaginary surface is superimposed on the airspace around the airport to determine whether an object is an obstruction to the airport. The major height restrictions lie within the 800-foot horizontal surface (800 foot elevation Safety Zone), the 900-foot horizontal surface (900 foot elevation Primary Safety Zone), and the 1,000-foot conical surface (1,000 foot elevation Primary Safety Zone) (Exhibit 5.6-1).

TABLE 5.6-1
AIRPORT COMPATIBILITY MATRIX

	Referral Area "A" (Includes RPZ & Safety Zone I)	*Referral Area "B" (Includes Safety Zone II)*	*Referral Area "C" (Includes Safety Zone III)*	*Conical Surface Area*
LAND USES				
Single Family Dwelling(s)	Not Permitted	Conditionally Permitted if: • Interior noise levels are no more than 45 Ldn, and • Does not exceed the maximum persons per acre • Avigation Easement provided. • Residences which were in existence at that location prior to January 1, 1989 if interior CNEL is 45 dB or less and exterior CNEL is 75 dB or less in private habitable areas (e.g. backyard, patio, balcony)	Conditionally Permitted All residences permitted within the 60 – 65 Ldn range shall be required to provide forced air ventilation and prepare an acoustical study to show that 45 dB interior and 65 dB exterior in private open space areas is not exceeded.	Permitted
Multi-Family Dwellings	Not Permitted	Conditionally Permitted if: • The interior noise levels are no more than 45 Ldn, and • Does not exceed the maximum persons per acre. • Avigation Easement provided. • Residences which were in existence at that location prior to January 1, 1989 if interior CNEL is 45 dB or less and exterior CNEL is 75 dB or less in private habitable areas (e.g. backyard, patio, balcony).	Permitted All residences permitted within the 60 – 65 Ldn range shall be required to provide forced air ventilation and prepare an acoustical study to show that 45 dB interior and 65 dB exterior in private open space areas is not exceeded.	Permitted
Commercial (e.g. retail, restaurant, movie theater)	Not Permitted	Not Permitted	Conditionally Permitted	Permitted
Schools, Nursing Homes, Hospitals	Not Permitted	Not Permitted	Conditionally Permitted An acoustical study shall be required which shows how the 45-dB interior and 65-dB exterior standard shall be met.	Permitted
Office	Not Permitted	Not Permitted	Conditionally Permitted	Permitted
Warehouses	Not Permitted	Conditionally Permitted if: • Does not exceed persons per acre limitation, • Is not hazardous in nature, • Has no above ground hazardous materials, and • Does not create electronic hazards (including interfering with radio communications, distracting lights, or smoke).	Conditionally Permitted if: • No above ground hazardous materials, and • Does not create electronic hazards (including interfering with radio communications, distracting lights or smoke).	Permitted
Manufacturing	Not Permitted	Conditionally Permitted if: • Does not exceed maximum persons per acre, • Is not hazardous in nature, • Has no above ground hazardous materials, and • Does not create electronic hazards (including interfering with radio communications, distracting lights, or smoke).	Conditionally Permitted if: • No above ground hazardous materials, and • Does not create electronic hazards (including interfering with radio communications, distracting lights or smoke).	Permitted
Assembly Uses (indoor and outdoor) e.g. churches, auditoriums, and stadiums	Not Permitted	Not permitted	Not permitted (ACLUP) Conditionally Permitted by SBC General Plan	Permitted

TABLE 5.6-1 (CONT.)
AIRPORT COMPATIBILITY MATRIX

	Referral Area "A" (Includes RPZ & Safety Zone I)	*Referral Area "B" (Includes Safety Zone II)*	*Referral Area "C" (Includes Safety Zone III)*	*Conical Surface Area*
Playground, Neighborhood Park	Not Permitted	Not Permitted	Conditionally Permitted	Permitted
Hotels, Motels and Transient Lodging	Not Permitted	Not Permitted	Conditionally Permitted if maximum persons per acre are not exceeded. An acoustical study shall be prepared which shows how the 45 dB interior noise requirement will not be exceeded	Permitted
Golf Course, riding stables, cemeteries	Not Permitted	Not Permitted	Conditionally Permitted	Permitted
Agriculture	Permitted outside OFA except if it attracts birds	Permitted	Permitted	Permitted
Automobile Parking	Permitted outside of runway OFA extended and below the approach surface (but not recommended)	Conditionally Permitted	Permitted	Permitted
Any use which generates smoke	Not Permitted	Not Permitted	Not Permitted	Permitted
Use or structure which generates glare	Not permitted	Not Permitted	Not Permitted	Permitted
Fuel handling or storage	Not Permitted	Not Permitted	Conditionally Permitted (tanks must be underground)	Permitted
RESTRICTIONS				
Maximum Persons Per Acre	No uses that generate more than 10 persons per acre at any one time but only for short periods of time.	Uses not in a structure: No more than 50 persons per acre at any one time. Uses in structures: No more than 25 persons per acre and no more than 15 persons per building at any one time	No Limitation	No Limitation
Height Restrictions	The applicant shall notify the FAA Administrator if the structure is: • Above 200 feet in height • Greater than an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the runway.			
Avigation Easement Required?	Yes	Yes	Yes	No

To estimate building height restrictions within these surfaces, the ground elevation is merely subtracted from either the 800, 900 or 1,000-foot elevation. The remaining number is the maximum building height. Maximum allowable building heights will vary within these horizontal and conical surfaces, depending on the ground elevations. As a result of the above methodology, a survey of height restrictions in the plan area suggests that height restrictions are not likely to represent a significant constraint to development options. For example, maximum building heights east of the Runway 8R-26L RPZ are estimated at 160 feet (800'-640'=160'); south of Kimball Avenue at Grove Avenue at 185 feet (800'-615'=185'); and Chino-Corona Road at Cucamonga Avenue at 234 feet (800'-566'=234').

FAA Part 77 requires that the FAA Regional Office receive notice of any construction that would pierce an imaginary surface extending outward from the airport boundary at a slope of 100:1. The Notice of Construction criteria is different than the imaginary flight surfaces defined for the airport runways. When the FAA receives Notice of Construction, an aeronautical study is undertaken to determine whether or not the proposed construction might create an airspace hazard or have an adverse impact on the operation of airport navigational aids. The FAA recommendations are then transmitted to the applicant/agency for their consideration in processing development applications and entitlements.

Airport Vicinity Wildlife Hazards

The possible location of wildlife areas/water features near airports is a safety concern for aircraft operations, particularly with regard to waterfowl near runways. FAA Advisory Circular 150/5200-32 presents various recommendations to restrict the location of water features, one of which is to "Locate water features at least 1,200 feet from the runway centerline and not off the ends of runways; water features should not be located in safety areas…[and] as far away from the runway end as is physically possible." The concern is with aircraft/bird collisions, which often occur approximately 500 feet above ground level, although they can occur at 1,000 feet or more above ground level.

Hazardous Materials and Risk of Upset

The presence of suspected or known hazardous waste contamination sites within the plan area was determined through a computerized database search of various governmental agency lists (see Appendix G). CEQA requires the lead agency to consult the lists of hazardous waste sites compiled by various state agencies (Cal EPA, the Department of Health Services, the State Water Resources Control Board, and the California Integrated Waste Management Board) pursuant to governmental Code Section 65962.5 (CEQA, California Public Resources Section 21092.6). The database search included review of all of the required state lists and a search of various federal (U.S. EPA) and local (San Bernardino County Fire Department) hazardous waste sites lists. The California Regional Water

Quality Control Board (RWQCB) was also contacted regarding any Cease and Desist Orders or Cleanup Abatement Orders issued for uses within the plan area.

Table 5.6-2 contains a summary of active known or suspected contamination sites within the plan area. A total of 27 known sites are located within the project area, although many of the individual sites have multiple site listings. Exhibit 5.6-2 locates these sites within the plan area.

TABLE 5.6-2
REPORTED HAZARDOUS WASTE SITES THE PRESERVE PLAN AREA[1]

Map I.D. Number	Site Listing
1, 3, 4, 9, 10, 14, 15, 16, 18, 23	LUST
2, 3, 8	SWLF
4, 6, 7, 9, 12, 14, 17, 18, 20, 21, 22, 24, 25, 27	UST
2, 4, 11	AST
4, 5, 10, 13, 16, 19, 26	GNRTR

[1] Includes Chino Airport outside The Preserve plan area.
* Individual sites may have multiple listings
Source: Vista Information solutions, Inc., MBA, 2000

KEY
LUST – Leaking Underground Storage Tank
SWLF – Solid Waste Landfill Facility
UST – Underground Storage Tank
AST—Above Ground Storage Tank
GNRTR—RCRA small (< 1,000 kg/month of non-acute hazardous waste) or large (> 1,000 kg/month of non-acute hazardous waste) generators of hazardous waste

The reported hazardous waste sites are of five types - LUST, SWLF, UST, AST, and GNRTR, as identified in Table 5.6-2 (see table for acronym meaning). Of all confirmed LUST sites reported in the project area, the leaking material was gasoline, the leaks have been remediated, and cases closed. The SWLF sites in operation include the IEUA Co-Composting Facility, a brine filter facility, and a non-hazardous solid waste facility, none of which pose an immediate health or environmental hazard. All UST sites contain gasoline (e.g. diesel and unleaded gas) ranging from 550 gallons to 10,000 gallons in volume. Of the three registered AST sites within the project area, one is known to contain sludge and is located at the Chino Basin Master Water District, and the other two contain gasoline and are located at the California Institution for Women. Finally, all GNRTR sites generate under 1000 kilograms/month of non-acutely hazardous waste or non-hazardous solid waste. No sites within the project are under investigation for violation by the California Department of Toxic Substance Control (DTSC), U.S. Environmental Protection Agency (U.S. EPA), or any other state or federal agency. Nor is there any information in the hazardous sites search to suggest any current spills, releases, or violations. Therefore, the hazardous sites search suggests that none of the aforementioned agency-listed hazardous materials sites pose an immediate threat to human or environmental health within or surrounding the project area.

Other Risk Management Issues

Hazards that potentially effect the plan area also include vector control issues associated with existing dairy operations, fuels and chemicals located at the Chino Airport, the Co-Composting Facility, potential methane accumulations or releases from organic soils, hazardous building materials and electromagnetic fields associated with electrical lines traversing the project area. These conditions are discussed below.

Vector Control

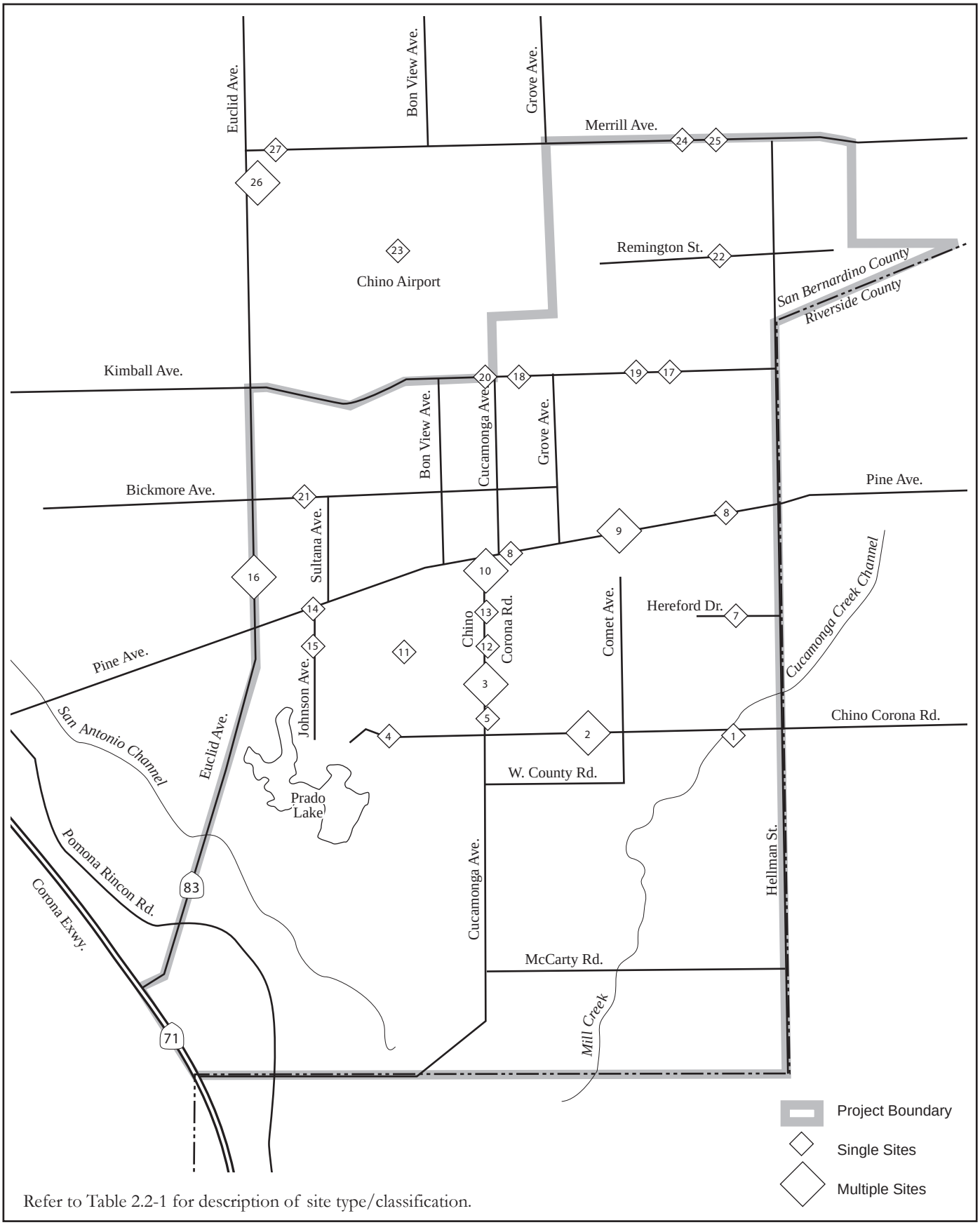
The project area is part of the Chino Basin Dairy Area (CBDA), which is home to the largest dairy cattle population in the world. The dairy operations result in the generation of millions of tons of manure each year. It is currently estimated that there is 2 million tons of manure stockpiled within the CBDA.[4] As a result of the stockpiling of manure, there has been an increase in the fly population within the CBDA. To control the increasing fly population, chemical treatments are used. The West Valley Mosquito and Vector Control District promotes the practice of routine application of adulticiding chemicals, in the absence of the ability to practice proper composting. Unfortunately, the continued use of these chemicals in the CBDA has resulted in minor to severe resistance in the adult fly populations.

Activities that would increase the potential for standing water, especially during the summer months, has the potential for increasing the mosquito population. As pesticides are used to control the increasing fly population, herbicides are also used in the plan area by dairies to control plant and algae population in the numerous dairy manure ponds and water ponds.

Chino Airport

Chino Airport is located in the northwest portion of the project area. The Chino Airport has been subject to oil and fuel spills in the past, though presently the site is considered to be relatively clean. The Vista report previously referenced noted no hazardous waste sites at the airport but two private hangers were listed as small generators of hazardous waste (less than 1,000 kg/month). There is the possibility that there may be some ethylene-glycol soil contamination within the airport grounds, but there are no known plumes. All underground storage tanks at the airport have been removed and fuel storage is concentrated in the northwest corner of the airport. Fuel storage consists of a total of four

[4] Santa Ana River Watershed Group (SARWG), Manure Management Strategy (10/99)



Refer to Table 2.2-1 for description of site type/classification.

Michael Brandman Associates

NORTH

Exhibit **5.6-2**

Reported Hazardous Waste Sites

tanks, three 10,000-gallon tanks and one 20,000-gallon tank.[5] There is the possibility of additional fuel tanks in the future to be stationed near Kimball Avenue between Bon View and Grove Avenue.

Co-Composting Facility

The Inland Empire Utility Agency operates a Co-Composting Facility for both dairy manure and wastewater sludge within the project area. The total permitted capacity of the Facility is 400,000 wet tons/year and the estimated annual operating tonnage of manure in 1997 was 804,000 dry tons/year and 120,000 wet tons/year. The Co-Composting Facility, listed as a Solid Waste Landfill Facility, has no violations and is not subject to any enforcement actions. The sludge used for blending at the Co-Composting Facility has been deemed non-hazardous by EPA criteria. Greenwaste (bulking agent) brought to the facility by municipal solid waste collection companies is pre-sorted at curbside and is low in contamination. The greenwaste is inspected, sorted, and screened prior to processing for use as a bulking agent.

Hazardous Building Materials

Pre-1979 Buildings

It is likely that a number of buildings within the boundaries of the Sphere of Influence contain other potentially hazardous materials including asbestos and lead-based paints. These buildings may include, but are not limited to, pre-1979 residential structures as well as commercial and industrial buildings. Although the quantity and distribution of these sites is not presently known, their identification will be facilitated through preliminary investigation of individual properties within the Sphere of Influence prior to demolition. Buildings constructed prior to 1979 will be required by SCAQMD and the State of California, Division of Occupational Heath and Safety (Cal DOSH) to have asbestos and lead-based paint surveys prior to issuance of permits for major renovation or demolition. For those cases where asbestos and lead-based paint are found, there are a variety of abatement technologies currently available which are capable of safely reducing or removing contamination to make the area suitable for future development. With proper investigation of the structures within the Sphere of Influence on an individual basis prior to development, all possible sources of asbestos and lead-based paints can be identified and handled appropriately without significant adverse impacts.

[5] Ibid

Power Transmission Lines and Electromagnetic Fields

Electrical Facilities

Southern California Edison (SCE) provides electrical services to the City of Chino and the surrounding areas. SCE substations closest to the project area are located along Edison Avenue and Milliken Avenue northwest and northeast of the project area, respectively.

Power distribution lines in the vicinity of project area include 12 kilovolt (kv) lines, 20 kv, 66 kv, 200 kv and 500 kv lines. SCE transmission lines follow along select roadways: Kimball Avenue; Bickmore Avenue; and Euclid Avenue. A major east-west power line corridor, including 2-200 kv lines plus 2-500 kv lines, traverses the project area in the vicinity of Pine Avenue. A 66 kv line runs east-west through the site below Chino-Corona Road, and another 66 kv line runs along Euclid Avenue between Kimball and Bickmore avenues. SCE does not currently plan to upgrade their facilities in the vicinity however, development in the area would increase the demand for electrical service and that would require a significant upgrade in services to the area.

Long term direct exposure to electric and magnetic fields (electromagnetic fields) has been identified as a possible risk to human health.

Electric fields are produced in electrical lines as a result of voltage applied to wiring, and are measured in volts per meter (V/m) or kilovolts per meter (Kv/m). Electric field strengths greatly diminish with distance from the source and many structures including trees and houses shield these fields. Most exposure to residential electric fields is the result of internal household appliance use. Magnetic fields are the result of the movement (current) of electricity. These fields are measured in Gauss, however this measure is extremely large, and fields from electrical lines are generally referred to in milligaus (mg). As with electric fields, magnetic field strengths decrease dramatically with distance from the source; however structures such as trees on houses do not shield magnetic fields. Exposure to EMFs from power lines or electrical substations is typically in the extremely low frequency (ELF) range of the electromagnetic spectrum.

Within the plan area, possible concern with EMFs resides mainly with the major SCE power line corridor in the vicinity of Pine Avenue, and the types of uses which may be planned within or directly adjacent the corridor. No U.S. federal agency has yet set ELF EMF standards. Presently, neither the State, the County of San Bernardino, nor the City of Chino have provisions or codes regulation development near major transmission lines or substations.

5.6.3 THRESHOLDS OF SIGNIFICANCE

When evaluating the proposed project terms of the potential impacts related to airport operations, Appendix G (Environmental Checklist) of the CEQA Guidelines indicates a potential significant affect could occur if the project would result in a safety hazard for people that reside or work in the project area, or if the area was "located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport."

Regulatory agencies at the state and federal level have also established detailed regulations to guide development in and around airports. Therefore, this section will include the potential impacts of Chino Airport on the proposed plan relative to published regulations and consistency with those regulations.

Thresholds for potentially significant effects of hazardous materials and hazardous waste generation also rely on Appendix G of the CEQA Guidelines. Therefore, a project would normally have a significant effect on the environment if it would either 1) create a hazard to the public or the environment through the routine transport, use or disposal of hazardous materials, or 2) create a hazard to the public or environment through reasonably foreseeable accident or upset condition involving release of hazardous materials into the environment.

5.6.4 PROJECT IMPACTS

Chino Airport Land Use Restrictions

The proposed land uses around the Airport and the existing land use regulations have been integrated to ensure the proposed project will not be adversely affected by the Airport operations. Land uses to the east of the Airport that are potentially affected by aircraft noise, safety, and other airport related operations are Light Industrial and Agricultural, consistent with allowable uses in the airport Land Use Compatibility Matrix. Planned land uses to the southwest of the Airport include Open Space-Recreational and Airport Related Uses.

Potential vertical building height impacts of the proposed project were evaluated using the Federal Aviation Administration's (FAA) Part 77 Regulations for determining vertical height restrictions. Building height restrictions apply not only to buildings, but to all penetrations of airspace by objects such as the antennas, light standards or church steeples. Potential vertical building heights within the project area would be restricted to 160 feet or less depending on the type of approach allowed on the pertinent runway and the project's distance from the Airport. To ensure compatibility with FAA standards, development of tall structures around the Airport would not be allowed until a Notice of Construction is filed and reviewed by the FAA and the FAA response is considered by the City.

The proposed plan includes school sites, including elementary schools, a junior high school, a learning center, and possibly a college campus. These sites would be located within two (2) miles of the Chino Airport. The California Department of Transportation (Caltrans), Division of Aeronautics recommends that schools be sited outside a two (2) mile radius from an airport. Schools proposed within this two (2) radius are reviewed by Caltrans on a case by case basis. The major issues of concern from Caltrans' perspective are penetrations into air space, proximity to primary air traffic patterns, and whether or not the school is under the base leg of an instrument approach. Previous environmental documentation indicated that Caltrans has approved over 70 percent of the school sites proposed within two (2) miles of airport when these types of impacts do not occur.

From a procedural standpoint the local school district would be responsible for coordinating with Caltrans during the design and approval process for schools within the Airport sphere. As currently envisioned the location of the proposed schools would not impact any of the criteria listed above, and would not conflict with adopted airport safety zones.

No significant airport safety impact is anticipated for proposed schools.

Chino Airport Wildlife Hazards

Wildlife, such as birds, can represent a significant issue around an airport due to the potential for collisions with aircraft. FAA Advisory Circular 150/5200-32 contains various recommendations to restrict the location of water features, one of which is to "Locate water features at least 1,200 feet from the runway centerline and not off the ends of runways; water features should not be located in safety areas…[and] as far away from the runway end as is physically possible." The proposed project does not include the establishment of a significant water feature, although water amenities such as fountains may be incorporated into the design of public spaces or commercial projects. Since the proposed project does not include the creation of a substantial water body near the Airport this issue would not be considered significant under FAA criteria.

Vector Control

Implementation of the proposed project will, over time, systemically reduce the volume of standing water and other sources associated with the dairies that are used for breeding by mosquitoes.

With the abundance of manure and the presence of stagnant water, these populations may continue to breed during the dairy transition to urban uses, and buildout of the community. Control of these populations can be achieved with non-chemical methods (i.e. mechanical methods) and the use of pesticides. With proper, vector control practices, health and safety impacts are not expected to be significant.

Past and present uses of pesticides and herbicides in agricultural operations may have left measurable residues in the area's soils. Future development proposals within the plan area will be required to submit, at a minimum, Phase 1 Environmental Site Assessments to address the possible presence of chemical residues in soils. With conformance to recommendations of such reports, including any necessary soil blending during grading or remediation measures, future uses would not be adversely affected by agricultural soils.

Co-Composting Facility

A possibility exists that some of the plant material brought to the facility in greenwaste and green material is infected with plant diseases and/or insect pests. Green material/waste loads are required to be covered in order to prevent transmission of plant pathogens. As plant pathogens or pests are destroyed during the composting process as a result of the heat generated by the decomposition process, no significant risk to surrounding uses is anticipated.

Pathogens occurring in domestic sewage that can result in health risks to humans and animals include viruses, bacteria, protozoa, parasitic helminths, and fungi. However, the sludge composted at the site is not classified as hazardous waste. Additionally, the sludge used at the Co-Composting Facility is generally low in metals due to its predominantly residential origins. The sludge received by the facility is one of the final products of the sewage treatment process. The sludge digestion process (both anaerobic and aerobic) reduces virus populations by 2 to 3 orders of magnitude (99.9% reduction) and the drying of the solids has proven to further reduce the number of viruses. The composting process further destroys all five pathogen groups.

Without proper management practices, the exposure of surrounding populations to odors, dust emissions and related health hazards resulting from Co-Composting Facility air quality impacts during windy conditions would be potential concerns. However, IEUA has implemented dust and odor control plans including measures to mitigate these potential effects.[6] Such measures include:

- Aeration of organic bulking agents onsite to prevent anaerobic decomposition and emission of odors;
- Cessation of deliveries of sludge, manure, and bulking agents during periods of high winds (25 mph average or greater);
- Cessation of compost windrow mixing and/or turning during periods of high winds;
- Spraying of existing compost windrows and facility roadways with water during periods of high winds.

[6] Final Mitigated Negative Declaration for Co-Composting Facility Improvements; IEUA (11/98).

All potential runoff from the facility is contained within an onsite detention basin.

The proposed plan envisions the transition of the Co-Composting Facility to an area outside of the project boundaries as a related project. The proposed land use plan identifies residential uses in and around the current Facility location. The Specific Plan includes an overlay zone to establish an appropriate buffer around the facility (see Section 5.1 Land Use) in the event that residential uses are developed prior to facility relocation. Following facility relocation, appropriate site remediation methods should be employed to ensure adequate site safety for residential use.

No significant airborne or waterborne health or safety risks are anticipated.

Methane in Manure and Organic Soils

Of special concern in the plan area is surface organic residue (e.g. manure and other organic deposition) within the soils that remain from activities of the dairy industry. A related concern is possible exposure of new development and human populations to explosive concentrations of methane released from such soils. However, building code and grading code requirements, and soils engineering investigation report requirements are in place as safeguards to prevent possible hazards from construction in these areas. Soils reports for construction in these areas will require identification and testing for methane, and soils remediation as necessary. No significant remaining hazards are anticipated.

Electromagnetic Fields

A number of overhead electrical lines traverse the project area. Electric fields are produced in electrical lines as a result of voltage applied to wiring, and are measured in volts per meter (V/m) or kilovolts per meter (Kv/m). Scientific research has suggested that long-term direct exposure to electric and magnetic fields (electromagnetic fields) may pose a risk to human health.

The strength of electric fields greatly diminish as the distance from the source increase. Structures can also act to shield these fields. Most exposure to residential electric fields is the result of internal household appliance use. Magnetic fields are the result of the movement (current) of electricity. These fields are measured in Gauss, however this measure is extremely large, and fields from electrical lines are generally referred to in milligauss (mg). As with electric fields, magnetic field strengths decrease dramatically with distance from the source; however structures such as trees of houses do not shield magnetic fields. Exposure to EMFs from power lines or electrical substations is typically in the extremely low frequency (ELF) range of the electromagnetic spectrum.

At present no U.S federal agency has yet set ELF EMF standards. Presently, neither the State, the County of San Bernardino, or the City of Chino have provisions or codes regulation development

near major transmission lines or substations. The proposed land use plan has located an element of the community paseo and open space system along the alignment of the major SCE power line corridor that is roughly parallel with Pine Avenue. This land use will create a corridor that separates the power transmission lines from other land uses, thereby diminishing the potential long term effects of electromagnetic fields. Recreational use of the power line easement is not expected to result in any significant health hazards or risks.

5.6.5 CUMULATIVE IMPACTS

Hazardous Materials

Implementation of the proposed plan will provide for a variety of residential, commercial, industrial, and open space related uses. In general, the types of uses allowed by the specific plan do not include those that would result in the generation of substantial quantities of hazardous wastes or toxic materials. Compliance with federal, state and local regulations concerning the handling, transport and disposal of hazardous materials and wastes would reduce impacts to less than significant levels. As related projects in the CBDA and project vicinity will be required to mitigate their own hazardous materials impacts, no significant cumulative impacts related to hazardous materials are anticipated.

Airport Operations

With cumulative development within the Chino Airport vicinity, additional populations will be exposed to some level of risk associated with aircraft activities and hazards. However, safety zones have been established to protect future uses and reduce hazards to an acceptable level of risk, and future development will be subject to review by the Airport Comprehensive Land Use Plan (ACLUP) to assure compatibility. No significant cumulative impact is anticipated.

5.6.6 MITIGATION MEASURES

Airport Safety

HM-1 To minimize aircraft/wildlife hazards, sizeable water features that might attract waterfowl should be prohibited in the plan area east of the Airport.

HM-2 The maximum building heights outside of the runway protection zones may not exceed 160 feet to prevent any conflict with adopted flight patterns.

Hazardous Materials

HM-3 Prior to City consideration of any specific development projects within the plan area, developers will be required by the City to submit a completed Phase 1 Environmental Site Assessment (ESAs), which at a minimum, meets with the requirements of the most

current standards of investigation established by the American Society of Testing and Materials (ASTM Standard E 1527). The recommendations of such ESAs, including testing and soil remediation, if necessary, shall be adhered to reduce any identified hazards to acceptable levels.

HM-4 Prior to issuance of permits by the City of Chino for major renovation or demolition of any pre-1979 structure within the project area, the project developer will be required to submit documentation to the City Building Department that asbestos and lead-based paint issues are not applicable to their property, or that appropriate actions will be taken to correct any asbestos or lead-based paint issues prior to development of the site.

HM-5 In order to minimize risks to life and property, projects within the plan area will be required to demonstrate compliance with all applicable federal, state and local laws and regulations governing the handling, transport, treatment, generation and storage of hazardous materials.

5.6.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of mitigation measures, all potential hazards are reduced to less than significant levels.