SECTION 4
ENVIRONMENTAL SETTING

4.1 OVERVIEW OF ENVIRONMENTAL SETTING

This section provides an overview of the regional setting and environmental conditions within the proposed project area and vicinity. Additional environmental setting information is provided within each environmental topic/issue area discussed in Section 5. The terms 'project area' and 'plan area' are both used to describe The Preserve, and are used interchangeably throughout this discussion and in Section 5.

REGIONAL CONTEXT

The Preserve plan area encompasses 5,435 acres of the Chino Valley, a large and generally flat sub-portion of the larger San Bernardino Valley. The lower Chino Valley transitions to the Prado Basin, a major feature of the Santa Ana River (SAR) watershed. The SAR watershed is the largest coastal river system in Southern California, flowing from the slopes of the San Bernardino Mountains to the Pacific Ocean at Huntington Beach approximately 30 miles to the southwest. The SAR watershed, which covers over 2,650 square miles of widely-varying terrain, includes parts of San Bernardino, Riverside, Los Angeles and Orange Counties, and is home to more than 4.5 million people. The Preserve plan area is strategically located at a major Inland Empire 'gateway' to Orange County employment centers via SR 71 and SR 91.

The plan area is also part of the larger Chino Basin Dairy Area (CBDA), encompassing approximately 50 square miles roughly bound by SR 71, SR 60, I-15, and SR 90. The area includes approximately 23,000 acres in transition from dairy use to a variety of urban uses, and has been characterized as "one of the largest metropolitan in-fill sites in the nation."[1] As recently as 2000, the CBDA included approximately 300,000 dairy animals, and 2 million tons of stockpiled manure.

Approximately 2,197 acres of the plan area are within the potential highwater inundation area that will be created by the raising of the Prado Dam 28 feet and the spillway eight (8) feet, pursuant to the Santa Ana River Maintstem Project (SARM). Raising Prado Dam will increase the depth of the current inundation area by 10 feet, from 556 to 566 feet above sea level. The increased height of the dam was designed to accommodate a 200-year or greater flood event.

[1] Source: Santa Ana River Watershed Group (7/2000).

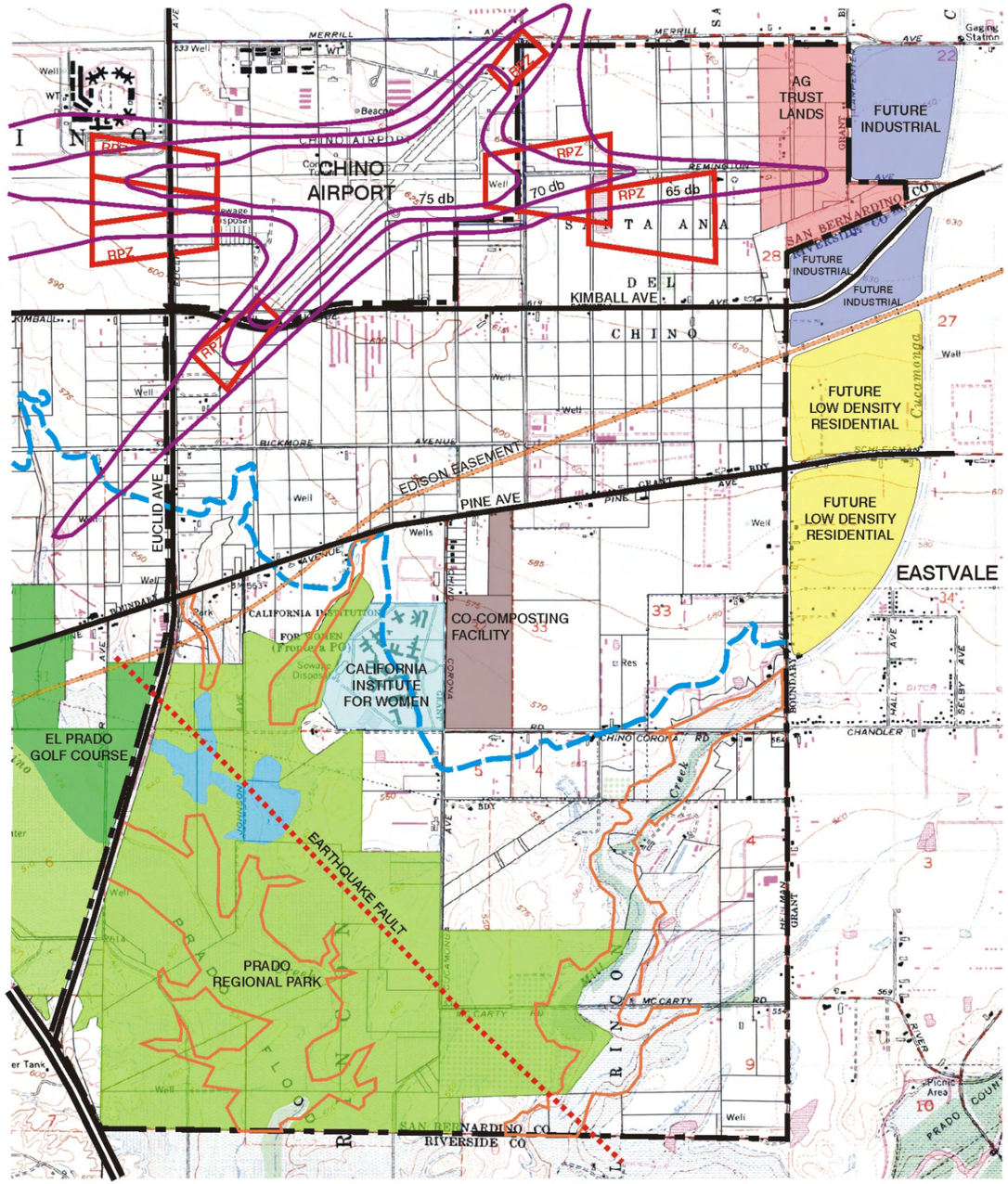
LOCAL SETTING

The Preserve plan area is approximately 2 miles in width and three miles in length, encompassing 5,435 acres. Elevations in the planning area range from about 500 to 600 feet above sea level. Adjacent to the planning area at the northwest corner of The Preserve is the California Institution for Men (CIM-Chino). Further west, in Chino Subarea 1 along Kimball Avenue is Inland Empire Utility Agency's (IEUA) Regional Wastewater Treatment Plant No. 5 (RP-5). Brief synopses of selected environmental conditions are provided below and mapped in Exhibit 4.1-1, Opportunities and Constraints.

Geology/Soils. The potentially active Central Avenue fault traverses the project area open space south of Pine Avenue. The site is subject to peak horizontal ground accelerations for the Maximum Probable Earthquake of approximately 0.5 to 0.6g. The project area is susceptible to liquefaction due to the presence of poorly consolidated soils and ground water. Relatively shallow groundwater tables through the southern portions of the planning area contribute to potential development hazards. Many of the soils in the project area are susceptible to expansion and settlement, indicating the presence of clay in the soils. Although the history of subsidence is unknown within the planning area, the potential does appear to exist for subsidence induced ground fissures. *(see 5.5 Geology and Soils)*

Drainage. The plan area is characterized by a lack of drainage facilities. During major storm events, runoff is carried via sheet flow and gulleys through the plan area in a southwesterly direction, often inundating the dairies. This runoff pattern contributes to water quality problems in downstream receiving waters. Two major creeks traverse the lower portions of the plan area--Chino Creek, which drains southerly along the base of the Chino Hills, and Cucamonga Creek flood channel, which becomes Mill Creek before draining into the eastern portion of the Prado Basin and eventually into the Santa Ana River. Two other smaller drainages extend south from the Chino Airport through the plan area, before joining Prado Lake within Prado Regional Park. These drainage courses generally coincide with the flood hazard areas below the 566-foot dam inundation area. *(see 5.3 Water Resources).*

Flooding and Inundation. A significant portion of The Preserve, 2,197 acres, lies within the highwater inundation area created by the proposed raising of the El Prado Dam by 28 feet and the spillway by 8 feet. The raising of the El Prado Dam will increase the minimum area of the potential dam inundation ten feet from its current elevation at 556 feet above sea level to 566 feet above sea level. The raised dam is designed to accommodate a 200-year or greater flood event over the life of the project. *(see 5.3 Water Resources).*



- Airport RPZ Zone
- 60 db — Airport Noise Contour
- 566' Dam Inundation Line
- Earthquake Fault
- Edison Power Easement
- Areas of High Biological Sensitivity
- Prado Regional Park (Master Plan)
- El Prado Golf Course
- Agricultural Trust Lands
- California Institute for Women
- Co-Composting Facility
- Proposed Industrial - Eastvale
- Proposed Residential - Eastvale

SOURCE: The Planning Center

NORTH

MAP NOT TO SCALE

Michael Brandman Associates

05760012 · 6/2001

Exhibit **4.1-1**

Opportunities and Constraints

THE PRESERVE • CHINO SUBAREA 2

Biological Resources. Sensitive habitats within The Preserve planning area include riparian woodlands along the major stream channels, various detention basins and open water areas, and freshwater marshes. Fallow agricultural fields and eucalyptus windrows have habitat value for raptor foraging and nesting, respectively. A variety of sensitive plant and animal species are known to occur in the vicinity of The Preserve and the Prado Basin. Federal or state-listed animal species include the least Bell's vireo, southwestern willow flycatcher, southwestern arroyo toad, California red-legged frog, Santa Ana sucker, and southwestern pond turtle. The burrowing owl is a species of concern. *(see 5.4 BiologicalResources)*

Land Use. The area in and around The Preserve contains a number of existing uses that will either remain or transition as new development occurs. The Preserve is a portion of the Chino Basin Dairy Preserve which is home to one of the largest dairy herd populations in the world, with an estimated population of 350,000 cows. A portion of these dairies, covering over a quarter of the project area, are located within The Preserve. An additional 40 percent of the project area is devoted to pasture land and agricultural uses. In the central and western portions of the project area are the Co-Composting Facility operated by the IEUA, the California Institution for Women (CIW-Chino), and Prado Regional Park (including Prado Lake). The Co-Composting Facility receives animal manure and wastewater sludge for recycling from dairies within the Chino Basin Dairy Area. Chino Airport, north of Kimball Avenue, presents a significant influence on the plan area *(see 5.1 Land Use and 5.2 Agriculture)*

Circulation. The project area is surrounded by a number of major transportation facilities, including the Chino Valley Freeway (SR 71) to the west, the Pomona Freeway (SR 60) four miles to the north, the Riverside Freeway (SR 91) three miles to the south, and Interstate 15 four miles to the east. Ingress and egress to The Preserve plan area is generally constrained by existing facilities such as the Chino Airport, the men's and women's Correctional Facilities, and the Prado Basin open space system. The principal arterial roadways within the plan area are Euclid Avenue and Pine Avenue. There are currently no transit lines or facilities serving the plan area. *(see 5.7 Transportation and Circulation)*

Air Quality. Air quality levels near the project site are occasionally unhealthful, but there are some encouraging signs that the air is slowly improving. Throughout the last decade, there has been a marked trend in lower maximum concentrations and a significant reduction in the frequency of standard violations. Ozone, the primary ingredient in photochemical smog, is the biggest pollution problem in the area. About one-fifth of all days of the year the plan area experiences a violation of the State hourly ozone standard, with an average of 3 days reaching first-stage alert levels of 0.20 ppm for one hour. No second-stage alert levels of 0.35 ppm for one hour have been called in the last ten years near the project site. While the secondary pollution levels of ozone and to a certain extent particulates are high from transport of pollution into the area, the primary vehicular pollution levels of

such pollutants as carbon monoxide (CO) and nitrogen oxides (NO_x) are quite low. Standards for these species are violated only infrequently in the Chino Basin. *(see 5.9 Air Quality)*

Noise and Safety. Chino Airport, located along a portion of the northerly project boundary, is a significant influence on The Preserve planning area. There are currently over 200,000 annual aircraft operations and 940 aircraft based at the airport, making it the 30th busiest airport in the nation. Portions of the FAA restricted use, development and height zones, as well as the adopted 60 dB CNEL noise contour associated with airport operations, all extend into The Preserve. Other significant current sources of noise within the plan area are vehicular traffic along Euclid Avenue (SR 83) and Pine Avenue. *(see 5.8 Noise and 5.6 Hazards)*

4.2 REGIONAL AND AREAWIDE CONDITIONS—CONTEXT FOR CUMULATIVE IMPACT ANALYSES

Section 15130 of the CEQA Guidelines requires the consideration of cumulative impacts within an EIR. Cumulative impacts are described as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the project when added to other closely related future projects.

In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of either 1) a specific list of past, present, and probable future projects, or 2) a summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.

The cumulative impact analyses in Sections 5.1 through 5.14 rely on a summary of projections from adopted local and regional plans and certified EIRs. The planning and environmental documents utilized to provide projections of regional and areawide conditions include the following documents, available at the City of Chino Community Development Department:

- City of Ontario Sphere of Influence General Plan.
- Market Analysis, Subarea 2, San Bernardino County, City of Chino, California.
- Southern California Association of Governments Regional Transportation Plan 2001 Growth Forecast.
- Chino Sphere of Influence Subarea 1, Chino Valley Dairy Preserve, General Plan Amendment.

RELATED PROJECTS

The area surrounding the proposed project includes land within the Cities of Chino, Chino Hills, Corona, Norco, and Ontario. In addition, land within the unincorporated area of the County of Riverside, referred to as the Eastvale area, has also been included. To better understand the potential cumulative growth that could occur within this area a listing of the projected growth rate of area jurisdictions is provided within Table 4.2-1 based upon projected growth rates from the Southern California Association of Governments Regional Transportation Plan, up to the year 2020.

Additional information is provided within Table 4.2-2, which summarizes land use totals from major plans and development projects within each jurisdiction. For many of the environmental impacts categories in Section 5.1 through 5.14, the area of cumulative impact generally conforms to the Chino Basin Dairy Area (CBDA), defined generally by the SR 60 Freeway on the north, SR 91 Freeway on the south, the I-15 Freeway on the east, and SR 71 on the west. However, for purposes of the traffic impact study, the cumulative study area extends beyond these boundaries (see Exhibit 5.7-1), including portions of Chino Hills,, and Riverside County east of I-15. For analysis of air quality cumulative impacts, the study area is regional in scope, including the entire South Coast Air Basin.

TABLE 4.2-1
SCAG GROWTH FORECAST—CHINO BASIN DAIRY AREA AND VICINITY

Jurisdiction	Population			Households			Employment		
	1997	2010	2020	1997	2010	2020	1997	2010	2020
Chino	63,906	72,070	79,473 (24 %)	16,582	19,326	21,391 (29%)	31,636	57,667	69,903 (121%)
Chino Hills	53,325	69,170	80,379 (51%)	16,330	21,533	24,104 (48%)	5,986	18,159	23,970 (300%)
Corona	107,922	138,997	150,049 (39%)	32,587	42,382	48,607 (49%)	36,126	56,751	65,475 (81%)
Norco	25,062	29,592	30,213 (21%)	5,861	7,137	7,429 (27%)	8,129	10,631	11,631 (43%)
Ontario	143,470	158,552	167,487 (17%)	41,988	45,571	47,741 (14%)	66,856	98,569	114,188 (71%)

Note: Data from SCAG Regional Transportation Plan 2001 Growth Forecast, obtained from SCAG web page. The percentage notations for the year 2020 indicate the percentage change from 1997 to 2020 for each of the three (3) categories.

The numerical growth rates delineated in Table 4.2-1 indicate significant growth within the CBDA and surrounding vicinity. This increased growth reflects the change in the area and the potential cumulative impact upon services and facilities.

In The City of Chino

A number of development projects have been approved or are under construction with the City of Chino. The most significant projects include Subarea 1, the East Chino Specific Plan, and a proposed Chino Institution for Men (CIM-Chino) project. The CIM-Chino project involves the development of surplus land from the California Institution for Men. The plan proposal encompasses 694 acres with 2,105 units, 24 acres of business park, and 15 acres of school/park land. Subarea 1, annexed in 1998, includes 1,810 acres of planned industrial, and existing agricultural and "greenspace" land. This breaks down to 562 acres of planned industrial land, and 320 acres of transitional agriculture/industrial land area within this area. The East Chino project includes 972.9 acres with 3,110 residential units, 93.4 acres of commercial land, and 105.6 acres of industrial land. The East Chino Specific Plan is substantially built out.

In The City of Ontario

The most significant development activity occurring within the City of Ontario is associated with the annexation of the Ontario GPA Area (i.e. the "New Model/Colony") on 8,200 acres, on November 30, 1999. This land encompasses that portion of the Chino Basin Dairy Area (CBDA) north of the proposed plan area. The City's general plan for the area allows a variety of land uses, including 5,200 acres of housing that would allow for up to 31,200 housing units, 504 acres of commercial land with 5.5 million square feet of retail space, 338 acres of industrial land with 5.2 million square feet of industrial space, 500 acres of educational uses, 888 acres of open space and parks, and 775 acres of other public and infrastructure uses. These figures represent potential build-out activity from standard uses that might occur under proposed plan designations and does not represent an actual development proposal.

In the City of Norco

The most notable activity occurring within that portion of the study area falling with the City of Norco includes several industrial related developments covering 17 acres and totaling 297,855 square feet.

In the City of Corona

City of Corona development projects pending, include a 365 unit senior apartment project, and a mixed use development project that includes single family residences, general commercial, and a hotel site.

In the City of Chino Hills

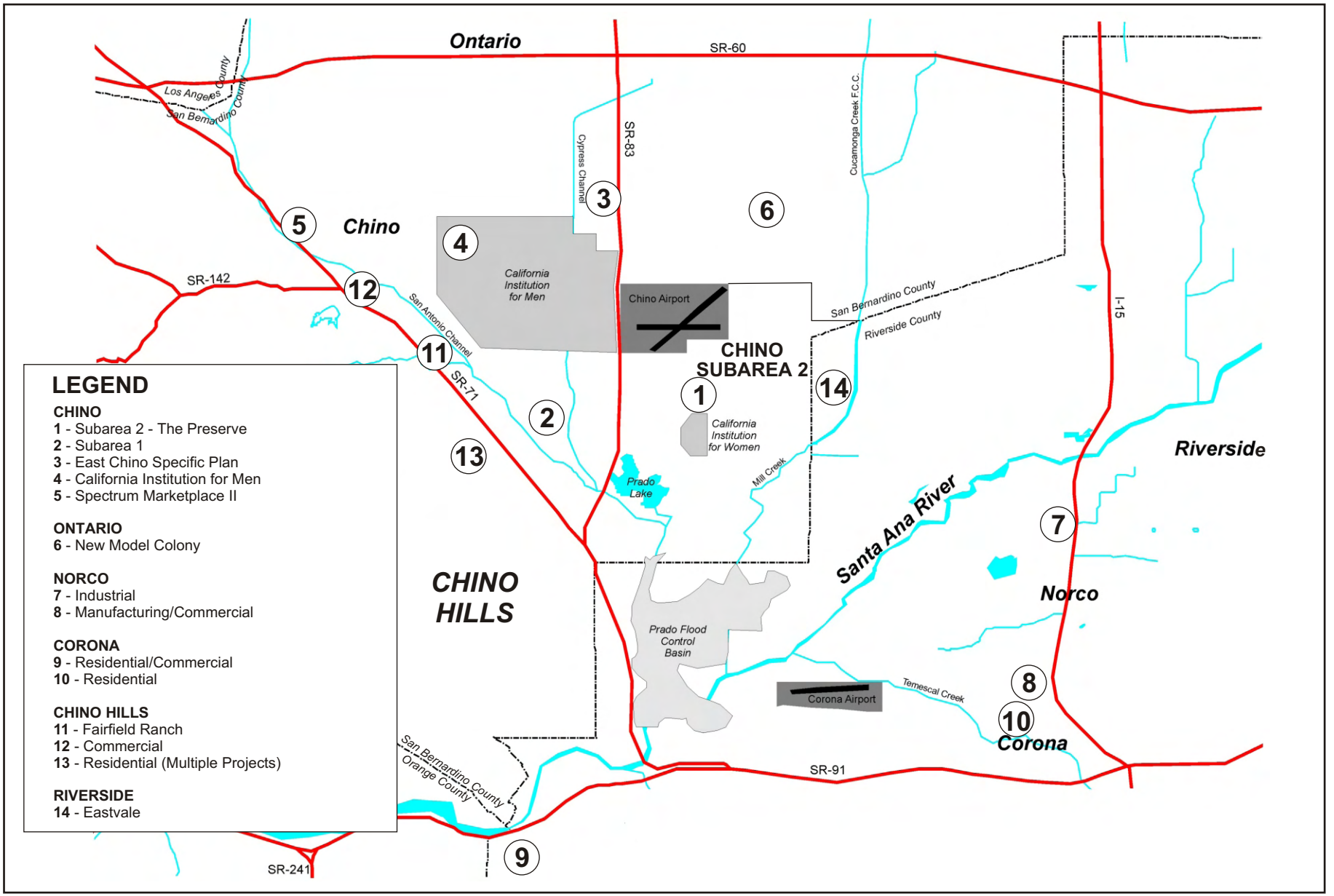
A number of major development projects have been proposed, approved, or are under construction within the City of Chino Hills. Included within the list is Fairfield Ranch, which includes 787 single family units, 37.5 acres of business park land, 1.8 acres of village commercial, 30.9 acres of commercial recreation, and approximately 55 acres of open space. A number of residential subdivisions have also been approved, such as Tract 14551 with 466 units and Tracts 14426 and 14427 with 322 units.

Table 4.2-1 provides a summary of cumulative development activity by jurisdiction within the CBDA. Exhibit 4.2-1 locates the major plans and development projects that comprise the cumulative growth scenario for the CBDA. A further breakdown tabulation by jurisdiction is provided in Appendix H—Land Use/Agriculture ("Related Projects").

TABLE 4.2-2
CUMULATIVE DEVELOPMENT RELATED ACTIVITY

Jurisdiction	Residential	Commercial	Industrial
Norco	N/A	18 acres	17 acres
Corona	397 units	70 acres	N/A
Chino Hills	2,526 units	83 acres	38 acres
Ontario	31,389 units[1]	504 acres	338 acres
Chino	5,299 units[2]	93 acres	1,048 acres[4]
Riverside County	26,200 units[3]	263 acres	744 acres
Total	**65,811 units**	**1,031 acres**	**2,185 acres**

[1] Includes an estimated 31,200 units that could be developed within the New Model Colony recently annexed to the City.
[2] Includes an estimated 3,110 units from the East Chino Specific Plan and an estimated 2,105 units proposed on surplus property from the California Institution for Men; data excludes the proposed project (The Preserve—Subarea 2).
[3] This figure includes an estimated number of units based upon an analysis included in the Market Analysis, Subarea 2, San Bernardino County, City of Chino California, April 2000.
[4] Includes 320 acres of transitional industrial land within the Subarea 1 project area.



NORTH

1.5 .75 0 1.5

APPROXIMATE SCALE IN MILES

Michael Brandman Associates

05760012 · 6/2001

Exhibit **4.2-1**

Cumulative Projects

THE PRESERVE • CHINO SUBAREA 2