

Threshold 3: Result in a Cumulatively Considerable Net Increase of Any Criteria Pollutant for Which the Project Region is Non-Attainment Under an Applicable Federal or State Ambient Air Quality Standard

The SDAB is currently classified as non-attainment for ozone, PM₁₀, and PM_{2.5}. As shown in Table 5.11-7, Table 5.11-8 and discussed above, project emissions are expected to exceed the thresholds for PM₁₀, carbon monoxide, and the ozone precursors NO_x and ROGs. Since the SDAB is in non-attainment for PM₁₀ and ozone, these emission levels would be significant. As the SDAB is in attainment for carbon monoxide, the projected maximum quarterly emission levels for that pollutant will not cause the region to exceed any applicable federal or state ambient air quality standards.

Threshold 4: Expose Sensitive Receptors to Substantial Pollutant Concentrations

As shown in Table 5.11-8, non-mobile project sources do not result in significant levels of ozone or PM₁₀. For mobile sources, CO hot spots can occur when projects contribute traffic to area intersections. However, CO hot spots almost exclusively occur near intersections with LOS E or worse. After mitigation, all of the studied intersections in the project vicinity are expected to operate at LOS D or better (LLG 2004). Consequently, no significant localized CO impacts are anticipated due to implementation of the project.

Otay Landfill

The proposed SPA Plan project will be constructed in the vicinity of the Otay Landfill. This active facility occasionally produces odors that can be detected outside of the landfill boundary. A health risk assessment was completed as part of the Otay Landfill expansion project, and an isopleth was prepared showing the potential chronic health risk. This analysis indicated that the incremental excess cancer risk of 10 in 1,000,000 was limited to an area within 1,000 feet of the landfill. The EIR for the Otay Landfill expansion project (County of San Diego 2000) indicated that:

The project carcinogenic risk isopleth indicating a 10 in one million carcinogenic risk for a residential receptor does not extend beyond the 1,000-foot nuisance easement/buffer except to the southeast of the landfill. Since the area to the south of the facility is zoned for industrial use, no residential receptors will be located in this area" (County of San Diego 2000:2-44).

The above conclusion that there would not be an acute or chronic health risk, in part, was due to the existence of a 1,000-foot nuisance easement/buffer that separates the landfill from residential development. The proposed project excludes residential uses in this buffer, and, as such, residential receptors would not be exposed to toxic emissions exceeding the 10 in 1,000,000 carcinogenic risk standard.

In addition to toxic pollutants, the activities at the landfill result in fugitive dust. The County's EIR for the landfill expansion predicted that there would be an incremental increase in PM_{10} of 212 pounds per day as a result of the landfill expansion and that this increase represented a significant impact. That EIR also incorporated specific measures to lessen those impacts, including limiting vehicle speeds to 15 mph, paving and sweeping haul roads to the working face, and watering unpaved haul roads. Based on the conclusions of the County's EIR, fugitive dust from the landfill is not considered a significant impact for the proposed project.

Project Construction

Construction dust is comprised primarily of chemically inert particles that are too large to enter the human respiratory tract when inhaled. Nevertheless, approximately 35 percent of the total fugitive dust emissions is 10 microns or smaller.

As discussed above, PM_{10} emissions are projected to be in excess of the standard recommended by the SDAPCD. Given the shifting nature of the construction activity, these fugitive dust impacts would only affect a given location for a relatively short period of time. However, because of the size of the project, this is considered a significant impact.

Threshold 5: Create Objectionable Odors Affecting a Substantial Number of People

The proposed project will be constructed in the vicinity of the Otay Landfill. This facility will occasionally produce odors that can be detected outside of the landfill boundary. The County's EIR for the landfill expansion project indicated that odor was not an issue because:

...the existing, currently operating site has no history of odor complaints, the proposed project would include a flare to dispose of excess landfill gas, and the composition of the refuse to be deposited would not change from current input as a result of the proposed project (County of San Diego 2000:2-45).

There recently has been about one odor complaint per month in the area resulting from odors emanating from the landfill (Griffin, pers. com. 2004). While this reflects an odor nuisance, the limited number of complaints indicates that odor is not currently a significant impact.

5.11.4 Level of Significance Prior to Mitigation

While the project conforms to many of the measures included in the RAQS "Criteria to Guide the Development of Transportation Control Measures," the proposed SPA Plan project is not consistent with the growth projections of the local regional air quality plan. This is a significant impact. Mitigation of this planning impact would require the updating of

the regional plan to reflect the general plan with the proposed project. This effort is the responsibility of SANDAG and outside the role of the City of Chula Vista.

The proposed project will result in a cumulatively significant long-term contribution to regional PM₁₀ and ozone levels as a result of projected emissions of ROG, an ozone precursor. The proposed project will also result in a short-term significant fugitive dust impact as a result of emissions stemming from construction.

The proposed project does not place residential uses in the landfill buffer and does not represent a significant air quality-related health risk effect due to the proximity of the proposed project to the landfill. Because the proposed project will not place homes in the vicinity of the landfill, and given the currently low number of odor complaints resulting from existing landfill operations, odor impacts are not considered significant.

5.11.5 Mitigation

Implementation of the proposed SPA Plan and the Composite TM would be required to implement the following mitigation measures to reduce impacts to air quality.

Construction

5.11-1 Prior to the approval of building permits for each phase of the project, the applicant(s) shall demonstrate that air and energy conservation control measures outlined in the SPA Plan Air Quality Improvement Plan pertaining to the design, construction, and operational phases of the project have been implemented.

5.11-2 Prior to the approval of any grading permit, the following measures shall be placed as notes on all grading plans, and shall be implemented during grading of each phase of the project to minimize construction emissions:

- a) Minimize simultaneous operation of multiple construction equipment units;
- b) Use low pollutant-emitting equipment construction equipment as practical;
- c) Use electrical construction equipment as practical;
- d) Use catalytic reduction for gasoline-powered equipment;
- e) Use injection timing retard for diesel-powered equipment;
- f) Water the construction areas a minimum of twice daily to minimize fugitive dust;
- g) Stabilize graded areas as quickly as possible to minimize fugitive dust;

- h) Pave permanent roads as quickly as possible to minimize dust;
- i) Use electricity from power poles instead of temporary generators during building, as feasible;
- j) Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry;
- k) Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads;
- l) Remove any visible track-out into traveled public streets within 30 minutes of occurrence;
- m) Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred;
- n) Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads;
- o) Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling; and
- p) Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph.

5.11.6 Level of Significance After Mitigation

Compliance with goals and objectives of the City's General Plan and implementation of Mitigation Measures 5.11-1 and 5.11-2 would reduce air quality impacts from construction to below a level of significance. Because there are no applicable or feasible mitigation measures within the control of the City to reduce mobile source emissions to below a level of significance, those operation-related impacts to air quality would remain significant and unmitigated. Adoption of a Statement of Overriding Consideration will be required should the decision makers choose to approve the proposed project.

5.12 Noise

The existing conditions, potential impacts, and mitigation measures related to noise were evaluated for the entire Otay Ranch project area as part of the Otay Ranch GDP Program EIR. Significant noise impacts were identified in the Otay Ranch GDP Program EIR from implementation of the Otay Ranch GDP, and mitigation measures were identified to reduce potential noise impacts to below a level of significance. The analysis and discussion of noise contained in the Otay Ranch GDP Program EIR are incorporated by reference.

The following section is based upon a Noise Technical Report for Otay Ranch Villages Two, Three, Planning Area 18b, and a portion of Village Four prepared by RECON in December 2005 (Appendix H).

5.12.1 Existing Conditions

The proposed SPA Plan area is currently vacant and ambient noise levels are low. The primary source of noise is construction activities to the east and northeast associated with the development of Otay Ranch Villages Six and Seven.

Applicable Standards

City of Chula Vista General Plan

The City of Chula Vista employs the noise guideline levels set forth in the Environmental Element of the City of Chula Vista General Plan, which identifies sound levels compatible with various land uses. All land uses are considered incompatible with noise levels in excess of 75 decibels community noise equivalent level (CNEL). A limit of 75 CNEL has been established for commercial and industrial uses; a limit of 70 CNEL has been established for office, business, and professional uses and for churches and auditoriums. More sensitive land uses such as residences, schools, parks, and libraries are considered significantly impacted by noise in excess of 65 CNEL. These standards are typically applied to exterior use areas adjacent to transportation noise sources such as roadways and railways.

The CNEL is a 24-hour A-weighted decibel average sound level [dB(A) L_{eq}] from midnight to midnight obtained after the addition of 5 dB to sound levels occurring between 7:00 P.M. and 10:00 P.M. and 10 dB to the sound levels occurring between 10:00 P.M. and 7:00 A.M. A-weighting is a frequency correction that often correlates well with the subjective response of humans to noise. Adding 5 dB and 10 dB to the evening and nighttime hours accounts for the added sensitivity of humans to noise during these time periods.

City of Chula Vista Noise Ordinance

Construction activities must comply with the hours set by the City of Chula Vista Municipal Code (Code). Pursuant to the Code, construction is prohibited Monday through Friday from 10:00 P.M. to 7:00 A.M., and from 10:00 P.M. to 8:00 A.M. on Saturdays and Sundays.

The City's Noise Ordinance also governs fixed source and operational noise. The applicable sound level is a function of the time of day and land use zone. Sound levels are measured at the property line of the noise source. As stated in the City's Noise Ordinance (section 19.68.030 a.4):

No person shall operate or cause to be operated, any source of sound at any location within the city or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level to exceed the environmental and/or nuisance interpretation of the applicable limits given in Table III.

Table III of Chapter 19.68 states that the environmental noise limit for a residential receiving land use (except for multi-family dwellings) is 55 dB(A) $L_{eq(1)}$ from 7:00 A.M. to 10:00 P.M. weekdays (8:00 A.M. to 10:00 P.M. weekends), and 45 dB(A) $L_{eq(1)}$ from 10:00 P.M. to 7:00 A.M. weekdays (10:00 P.M. to 8:00 A.M. weekends).

Noise generated on the community park site in northern Village Four would be subject to the noise ordinance standard for the residential receiving land uses to the north and south. This report also uses Chula Vista's noise ordinance as a criteria to evaluate off-site generated high school stadium activity noise. Football stadium activity noise is considered environmental noise as it is related to "public address and public assembly, indoor and outdoor, as permitted use" (Title 19, Chapter 19.68, Appendix A). The environmental noise limit is expressed as an hourly noise level [dB(A) $L_{eq(1)}$]. The hourly sound level [$L_{eq(1)}$] is the average A-weighted sound level [dB(A)] over a one-hour period.

State Building Code

Title 24 of the California Code of Requirements, also referred to as the State Building Code, requires that interior noise levels in multi-family residences caused by exterior sources, not exceed 45 CNEL. This is also considered a desirable noise exposure standard for single-family residences.

Title 24 further specifies that if exterior noise levels exceed 60 CNEL for multi-family residential uses, an acoustical analysis shall be required to demonstrate that the design would achieve the prescribed interior noise standard.

The noise level of 65 CNEL is also the threshold where noise interferes noticeably with the ability to carry on a quiet conversation. Therefore, an exterior noise exposure of 65 CNEL is, the most common noise/land use compatibility guideline for new residential constructions in California. For single-family residences, structural attenuation of noise from the exterior to interior is found in standard construction practices to be 20 dB if windows are closed. When exterior noise levels are greater than 65 CNEL, consideration of construction specifics is required to ensure that interior noise levels will not exceed the 45 CNEL standard. Because commercial or industrial uses are not occupied on a 24-hour basis, the exterior noise exposure standard for these less sensitive land uses is generally less stringent.

5.12.2 Thresholds of Significance

The City of Chula Vista employs the noise guideline levels set forth in the Environmental Element of the City of Chula Vista General Plan, which identifies sound levels compatible with various land uses.

Based on Table 5.12-1, and in accordance with significance criteria established by Appendix G of the State CEQA Guidelines and the City of Chula Vista, a significant impact could occur if the proposed project would:

- Threshold 1: Expose persons to or generation of noise levels in excess of standards established in the Chula Vista General Plan or noise ordinance, or applicable standards of other agencies;
- Threshold 2: Expose persons to or generation of excessive groundborne vibration or groundborne noise levels;
- Threshold 3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Threshold 4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- Threshold 5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing \or working in the project area to excessive noise; or
- Threshold 6: For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

**TABLE 5.12-1
NOISE AND LAND USE COMPATIBILITY**

Land Use	Annual Community Noise Equivalent Level in Decibels					
	50	55	60	65	70	75
1. Outdoor amphitheaters (may be suitable for certain types of music)	Compatible	Compatible	Incompatible	Incompatible	Incompatible	Incompatible
2. Schools, libraries	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
3. Nature preserves, wildlife preserves	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
4. Residential—single-family, multi-family, mobile homes, transient housing	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
5. Retirement home, intermediate-care facilities, convalescent homes	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
6. Hospitals	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
7. Parks, playgrounds	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
8. Office buildings, business and professional	Compatible	Compatible	Compatible	Compatible	Incompatible	Incompatible
9. Auditoriums, concert halls, indoor arenas, churches	Compatible	Compatible	Compatible	Compatible	Compatible	Incompatible
10. Riding stables, water recreation facilities	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible
11. Outdoor spectator sports, golf courses	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible
12. Livestock farming, animal breeding	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible
13. Commercial-retail, shopping centers, restaurants, movie theaters	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible
14. Commercial-wholesale, industrial manufacturing, utilities	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible
15. Agriculture (except livestock), extractive industry, farming	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible
16. Cemeteries	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible

SOURCE: San Diego Progress Guide and General Plan (Transportation Element).



COMPATIBLE: The average noise level is such that indoor and outdoor activities associated with the said use may be carried out with essentially no interference from noise.



INCOMPATIBLE: The average noise level is so severe that construction cost to make the indoor environment acceptable for performance of activities would probably be prohibitive. The outdoor environment would be intolerable for outdoor activities associated with the land use.

5.12.3 Impacts

Threshold 1: Expose persons to or generation of noise levels in excess of standards established in the Chula Vista General Plan or noise ordinance, or applicable standards of other agencies.

Traffic on Major Roadways

General Plan Circulation Element

Noise levels were modeled for a series of receivers located throughout the proposed SPA plan area to determine the future noise contours over the proposed project site due to traffic on the roadways. These contours are based on traffic volumes at buildout of the SPA Plan, and therefore, represent the worst case scenario. STAMINA input and output are provided in Attachment 1 of the Noise Technical Report (see Appendix H). The resulting noise contours at five feet above the ground are shown in Figure 5.12-1. These noise contours include the effects of future grading on the property but do not take into account any noise mitigation measures or shielding provided by the proposed buildings. As shown in Figure 5.12-1, ground-level receivers on certain lots adjacent to Olympic Parkway, Heritage Road, and La Media Road could experience future traffic noise levels in excess of 65 CNEL, which is the City's exterior residential standard. Figure 5.12-1 shows that all of the commercial areas in Village Two are projected to be below the 75 CNEL standard, and that noise levels for the five community purpose facilities located in Village Two do not exceed 65 CNEL. The sixth community purpose facility located in Village Three is not adjacent to a major roadway; therefore, traffic noise levels are anticipated to be within the standard for its ultimate use.

Noise levels were also modeled for a series of ground-floor receivers located adjacent to the roadways. Figure 5.12-2 shows the locations of the modeled receivers. Second-floor noise levels were also projected for the receivers. Table 5.12-2 summarizes the results of the noise modeling at the modeled receivers. Future predicted noise levels are projected to exceed the City's 65 CNEL exterior standard on portions of the single- and multi-family residential lots adjacent to Olympic Parkway, Heritage Road, and La Media Road. It should be noted that a group of residences along Heritage Road do not have backyards (receivers 59 through 63 in Figure 5.12-2). This group of residences was assumed not to have ground-floor exterior usable areas since the lots are bounded by a street on one side and an alley on the other. The ground floors of these residences were assumed to have garages on one side and a front entrance on the other.

Without mitigation, noise impacts from traffic on area roads are considered significant.



Village Two and a Portion
of Village Four Boundary

- 70 CNEL
- 65 CNEL
- 60 CNEL
- 55 CNEL



FIGURE 5.12-1
Future Noise Contours
at Buildout

N 0
Feet 500



Village Two and a Portion
of Village Four Boundary

Receiver locations

FIGURE 5.12-2
Modeled Receiver Locations

**TABLE 5.12-2
GPU TRAFFIC BUILDOUT NOISE LEVELS**

Receiver Number	First-Floor Receivers		Second-Floor Receivers	
	CNEL without Mitigation	CNEL with Mitigation	CNEL without Mitigation	CNEL with Mitigation
1	66	64	N/A	N/A
2	64	64	N/A	N/A
3	63	63	N/A	N/A
4	59	59	N/A	N/A
5	55	55	57	57
6	57	57	59	59
7	60	60	61	61
8	60	60	61	61
9	60	60	61	61
10	60	60	62	62
11	62	62	63	63
12*	64	64	64	64
13*	65	65	66	66
14*	67	67	67	67
15	68	65	71	71
16	67	64	71	71
17	66	63	71	71
18	66	62	71	71
19	68	64	70	69
20	64	63	64	64
21	63	63	64	64
22	65	65	66	65
23	64	63	68	67
24	71	65	72	72
25	71	63	71	71
26	70	62	70	70
27	71	64	71	71
28	70	64	70	70
29	70	64	70	70
30	70	64	70	70
31	70	65	70	70
32	70	65	70	70
33	65	65	66	65
34	59	59	60	60
35	60	60	61	61
36	61	61	62	62
37	62	62	63	63
38	63	63	63	63
39	64	64	64	64
40	64	64	64	64
41	64	64	65	65
42	64	64	64	64
43	64	64	64	64
44	63	63	65	65
45	65	65	65	65
46	65	65	65	65
47	65	65	65	65
48	65	65	66	66
49	66	63	67	67

TABLE 5.12-2
GPU TRAFFIC BUILDOUT NOISE LEVELS
(continued)

Receiver Number	First-Floor Receivers		Second-Floor Receivers	
	CNEL without Mitigation	CNEL with Mitigation	CNEL without Mitigation	CNEL with Mitigation
50	66	62	67	67
51	66	61	66	66
52	66	61	66	66
53	66	61	67	66
54	67	62	67	67
55	67	62	67	67
56	66	61	66	66
57	66	62	67	67
58	67	62	67	67
59 [†]	62	61	66	66
60 [†]	62	62	67	67
61 [†]	64	64	68	68
62 [†]	67	67	68	68
63 [†]	65	65	66	66
64	62	62	64	64
65	60	60	60	60
66	59	59	59	59
67	58	58	58	58
68	57	57	57	57
69	56	56	57	57
70	56	56	56	56
71	57	57	57	57
72	65	65	65	65
73	67	63	67	67
74	67	62	67	67
75	66	62	66	66
76	67	63	67	67
77	66	61	66	66
78	65	65	65	65
79	65	65	65	65
80	65	65	66	66
81	64	64	65	65
82	63	63	64	64
83	64	64	64	64
84	64	64	64	64
85	63	63	63	63
86	63	63	63	63
87	62	62	63	63

*Commercial.

†Townhouse, no ground-floor exterior usable area.

N/A: Park – no second-floor receivers.

Stationary Source Noise

High School

The Otay Ranch High School is located adjacent to the northeast portion of Village Two. Adjacent residences include the neighborhoods of R-8, R-9, R-5, and R-10 consisting of single- and multi-family units (Figure 5.12-3). The school will have bells for use as signaling devices. The City's Noise Ordinance classifies these as stationary non-emergency signaling devices and prohibits the sounding of these devices for more than 120 seconds continually, in an hourly period, or intermittent sounding over a five-minute period in any hour.

It is anticipated that the main source of noise from the school to SPA Plan area residential receivers will be organized activities at the football stadium.

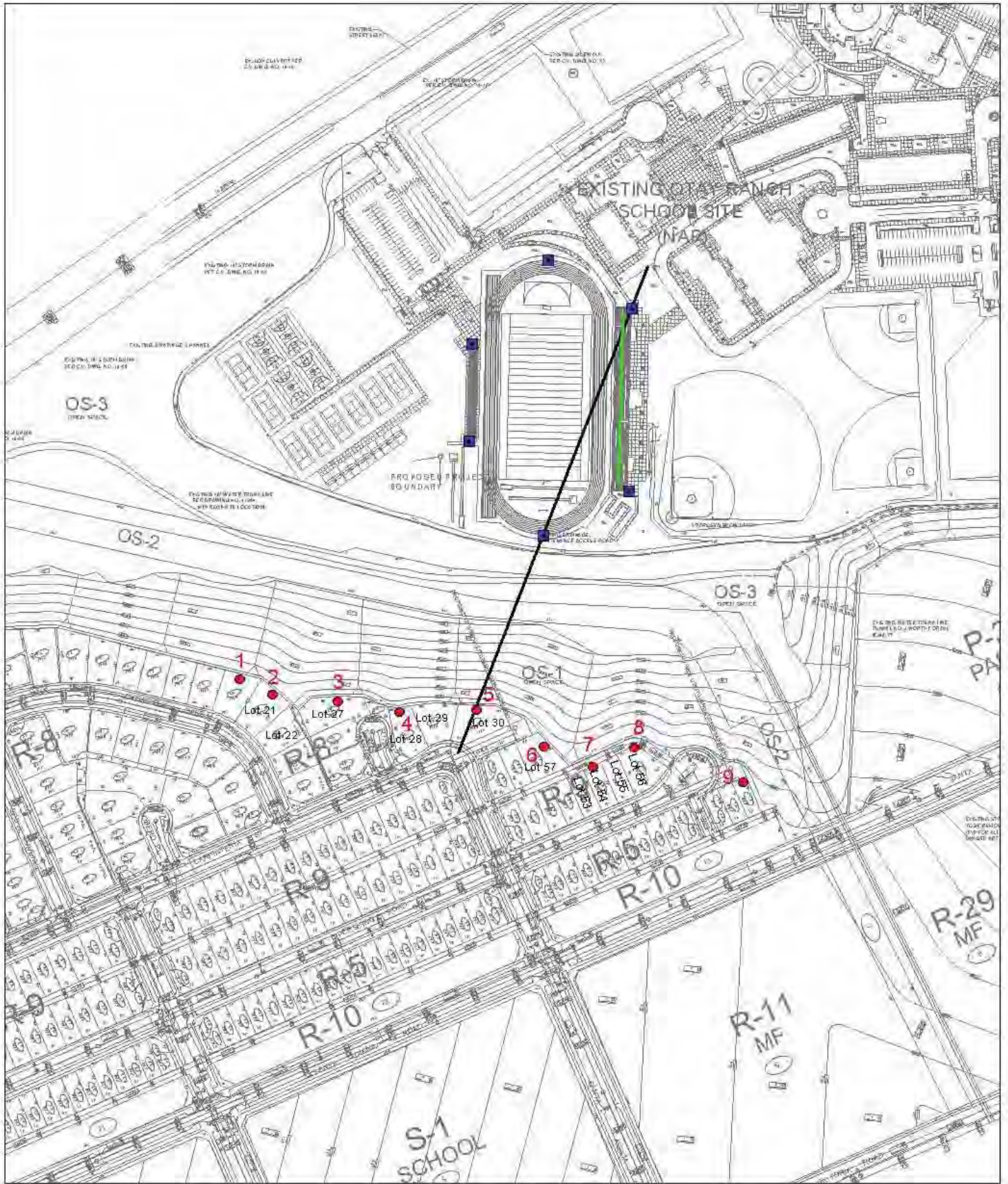
FOOTBALL STADIUM ACTIVITIES

Perhaps the most significant potential off-site noise source affecting on-site residential properties is the football field. The field is located at the southwest corner of the school site, north of a proposed residential area. The football field is below grade relative to the residential area. The maximum height of the bleachers will be approximately 20 feet above the playing field. The hillside behind the stadium slopes up 65 feet to the residential lots. Because the hillside extends above the height of the stadium and bleachers, the hillside may act as a barrier to noise levels occurring on the playing field.

This report uses the Chula Vista Noise Ordinance as a criterion to evaluate off-site generated high school stadium activity noise. Secondary source data was used to assess the potential on-site noise impacts at the adjacent residential properties within the SPA boundaries due to activities at the stadium at the Otay Ranch High School (RECON 2003a).

An assessment of potential noise impacts from activities at the stadium was modeled with the use of the point source component of the 1991 HICNOM model developed by Bowlby and Cohn at Vanderbilt University (1982). The HICNOM program is similar to the STAMINA model in that it calculates noise levels at selected receiver locations using input parameter estimates such as the location of the point sources, the reference noise levels, the location of receivers, and the size and location of barriers.

The calculations performed in this analysis were made assuming that the noise source is characterized by a nominal frequency of 500 Hertz. Receivers, sources, and barriers are entered into the HICNOM model using three-dimensional coordinates. The coordinate system used for the HICNOM model was NAD83 State Plane.



- Residential receiver location
- Modeled loudspeaker location
- ↗ Cross-section location
- ↗ Crowd noise location



FIGURE 5.12-3

Football Stadium and Adjacent Residential Receivers

RECON

Noise levels were evaluated at the residential property line. In this case, the SPA area's residential property line to the south of the stadium is located at the top of a slope above the stadium. Since barriers may be required at the top of this slope, noise levels were evaluated 10 feet back from the property line/future barrier within the residential backyards. Figure 5.12-3 shows the stadium and the location of the proposed project residences to the south.

The daytime average hourly sound level limit at the residential property boundary is 55 dB(A) $L_{eq(1)}$ (the average sound level for a one-hour period). The daytime limits are applicable from 7:00 A.M. to 10:00 P.M. on weekdays, and from 8:00 A.M. to 10:00 P.M. on weekends. It is assumed that the principal use of the loudspeaker system will be for stadium sporting events, in particular football games and that the announced football games will not last past 10:00 P.M.

The loudspeakers at the secondary source football game, as measured with a clear line of sight approximately 60 feet from the noise source, produced an average sound pressure level of 77.5 dB(A) during the measurement interval. The loudspeakers observed consisted of two speakers on poles generally pointed toward each end of the stands. These speakers were located in the center of the stands.

The stadium has six speaker poles as shown in Figure 5.12-3. Since two centrally located speakers were measured to generate 77.5 dB(A) at 60 feet, and the stadium adjacent to the project has speakers evenly distributed throughout, it is assumed that the 77.5 dB(A) noise level (relative to 60 feet) is distributed evenly throughout the six speaker locations. This results in an hourly equivalent sound level of 71.3 dB(A) at a distance of 50 feet for each of the six speaker locations. The speakers were placed approximately 30 feet above the playing field. When the speakers were not in operation, crowd noise generated approximately 65 dB(A) at 60 feet from the top of the stands. For this analysis, the crowd noise was approximated as a line source 10 feet above the playing field ground, near the middle of the stands, which generated 65 dB(A) at a distance of 75 feet.

The proposed residential units to the south of the stadium have the greatest potential of exposure to game noise. A series of 9 receivers were modeled at the first- and second-floors of the proposed residential properties to the south. Figure 5.12-3 shows the location of these receivers. Table 5.12-3 shows the noise levels at the modeled receivers resulting from activities at the stadium without mitigation assuming each of the six the speakers generate 71.3 dB(A) at 50 feet, and the crowd generates 65 dB(A) at 75 feet. These noise levels were modeled using the HICNOM program as discussed above. HICNOM input and output data are contained in Attachment 3 of the Noise Technical Report (see Appendix H). As seen in Table 5.12-3, noise levels at receivers 2 through 8 are projected to exceed the applicable exterior noise ordinance standard and is considered a significant impact. The CNEL due to combined stadium and traffic noise is less than 60, and therefore, interior noise levels due to stadium noise are not considered a significant impact.

**TABLE 5.12-3
PROJECTED FOOTBALL STADIUM NOISE LEVELS AT MODELED RECEIVERS
[dB(A)]**

Location	Applicable Daytime Standard [dB(A) L _{eq}]	Hourly L _{eq} without Mitigation		Hourly L _{eq} with Mitigation	
		First Floor	Second Floor	First Floor	Second Floor
1	55	54.8	54.8	54.8	54.8
2	55	55.1	55.1	51.7	55.1
3	55	56.1	56.1	51.2	55.5
4	55	56.8	56.8	52.1	56.8
5	55	57.9	57.9	54.0	57.9
6	55	57.1	57.1	54.0	57.1
7	55	56.5	56.5	54.3	56.5
8	55	56.8	56.8	54.7	56.8
9	55	54.8	55.0	54.8	55.0

Community Park

The 44.2-acre community park would be located in the northern portion of Village Four. Amenities in the park may include restroom/maintenance buildings, lighted softball fields, lighted soccer fields/multi-purpose turf play areas, sports courts (basketball and/or tennis with lighting), community recreation center, gymnasium, swim complex, play area with play equipment, picnic facilities (shelters with BBQs and picnic tables), walkways (with security lighting), pathways lighted parking lots, and other park support fixtures and furnishing. All amenities located in the park will be consistent with the Chula Vista Parks and Recreation Master Plan. The City is also anticipating including a lighted skate (skateboard and/or roller skate) facility in the community park. Normal operating hours for the park in Village Four would be daily from 6:30 A.M. to 10:30 P.M. On-site parking lots would be provided to accommodate park users and visitors. Vehicular access would occur from the perimeter streets that surround the park.

The community park is separated from proposed residences within Village Two by approximately 1,000 feet. Noise levels produced by a soccer field in use have been approximated to be 54.3 dB(A) hourly L_{eq} ($L_{eq(1)}$) at a distance of 50 feet (RECON 1986). Noise levels at a skateboard park have been measured to be 62 dB(A) L_{eq} at a distance of 130 feet from the approximate center of the skateboard park (RECON 2003b). This noise level would attenuate to 55 dB(A) at 291 feet and would attenuate to 45 dB(A) at 920 feet.

Therefore, such noise levels would attenuate to within the daytime and nighttime residential noise ordinance standards of 55 and 45 dB(A), respectively, for Village Two residential areas to the north. However, the area directly south of the community park is zoned for residential land use. There is potential for noise levels to exceed the daytime and nighttime noise ordinance standards at the southern boundary of the park if active uses are proposed within 291 feet and 920 feet of the southern boundary, respectively.

Industrial Uses

Industrial uses are proposed in Village Two along the edge of the Otoy Landfill adjacent to Birch Road and Heritage Road, and within all of Village Three. Currently, the nature of the uses on these areas is unknown. The exterior noise standard for industrial uses is 75 CNEL. Future traffic volumes on the project roadways adjacent to the industrial uses do not generate this level of noise within the industrial areas. Figure 5.12-1 shows the projected noise levels in the industrial areas within Village 2. Since a Tentative Map for Village Three has not been prepared, Village Three was not modeled. Table 5.12-4 shows the distances to noise contours through Village Three. These distances assume hard-site conditions with no intervening topography. Traffic noise levels are not anticipated to exceed 75 CNEL in the industrial areas.

**TABLE 5.12-4
DISTANCE TO NOISE CONTOURS FOR
HERITAGE ROAD, SOUTH OF BIRCH**

Noise Level (CNEL)	Distance from Centerline (feet)
75	32
70	101
65	321
60	1,011

There is the potential for the industrial uses to be noise generators. Noise levels that are produced on the Village Two industrial properties could affect the adjacent residential uses, while industrial uses in Village Three adjacent to Wolf Canyon could affect wildlife. At such time that specific uses are identified, documentation should be provided ensuring that adverse noise impacts are avoided.

Construction

Noise associated with the earthwork and construction will result in short-term impacts. A variety of noise-generating equipment would be used during the construction phase of the project. This construction equipment may include dump trucks, loaders, jackhammers, and concrete mixers, along with others.

Construction activities are exempt from the exterior noise standards specified in Section 19.68.060 of the City’s Municipal Code. However, construction noise has the potential to be a nuisance in existing residential areas in the vicinity of the project site. Pursuant to the Chula Vista Municipal Code Section 17.24.050 (Paragraph J), construction is prohibited Monday through Friday from 10:00 P.M. to 7:00 A.M., and from 10:00 P.M. to 8:00 A.M. on Saturdays and Sundays. Compliance with this regulation will ensure that construction noise does not cause a significant nuisance noise impact.

Threshold 2: Expose persons to or generation of excessive groundborne vibration or groundborne noise levels.

The project is not expected to generate or expose persons to excessive groundborne vibration or groundborne noise levels. Therefore, this is not a significant impact.

Threshold 3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Traffic Noise

The proposed project is expected to generate 67,901 ADT (LLG 2005). This will result in a permanent increase in ambient noise levels in the project vicinity. As discussed above, noise impacts from traffic on area roads are considered significant.

Community Park

Active uses are proposed for the community park which would be located in the northern portion of Village Four. As discussed above, depending on the final site plan, active uses at the park have the potential to increase ambient noise levels.

Industrial Uses

As discussed above, there is the potential for the industrial uses to be noise generators. At such a time that specific uses are identified, documentation should be provided ensuring that there is no substantial increase in ambient noise levels due to industrial uses.

Threshold 4: Result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Activities associated with the construction of the proposed project will be a major source of a temporary increase in ambient noise levels. However, as discussed above, compliance with the Chula Vista Municipal Code Section 17.24.050 (Paragraph J) will ensure that construction noise does not cause a significant nuisance noise impact.

Threshold 5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise.

The project area is not located within two miles of a public airport or public use airport. Therefore, this is not a significant impact.

Threshold 6: For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The project area is not located within the vicinity of a private airstrip. Therefore, this is not a significant impact.

5.12.4 Level of Significance Prior to Mitigation

Potential sources of noise related to the proposed project include construction noise, traffic-generated noise, noise from activities at the high school, noise from the community park, and noise from industrial uses.

Construction activities, especially heavy equipment, would create short-term noise increases near construction areas. However, compliance with the existing City's Municipal Code would reduce this impact to below a level of significance.

Noise within the proposed SPA Plan area would be affected by traffic on Olympic Parkway, Birch Road, La Media Road, Heritage Road, and several internal streets. The traffic on area streets could generate noise levels greater than the City's residential exterior standard of 65 CNEL at adjacent ground-level sensitive receptors, which could cause a significant impact without mitigation.

Proposed residential units to the south of the high school stadium would be affected by activities at the stadium. Exterior noise levels at receivers 2 through 8 in Village 2 are projected to exceed 65 CNEL. This could cause a significant impact without mitigation.

Active uses in the community park are not expected to exceed noise ordinance standards for Village Two to the north. However, noise levels may exceed standards for the residential zone to the south of the park. This could cause a significant impact without mitigation.

Traffic noise levels are not projected to exceed 75 CNEL in industrial use areas. Noise levels produced on the industrial properties have the potential to affect adjacent residential uses and adjacent wildlife. Depending on the specifics of the industrial uses, this may be a significant impact.

5.12.5 Mitigation Measures

Traffic Noise

General Plan Circulation Element

5.12-1 Noise barriers shall be constructed as shown on Figure 5.12-4 with the following provisions:



Village Two and a Portion of Village Four Boundary



Three foot high barrier



Four foot high barrier



Five foot high barrier



Six foot high barrier

FIGURE 5.12-4
Proposed Noise Barriers
for General Plan Traffic

- Prior to the issuance of any building permit for those lots within the noise contour of 65 CNEL or greater, the applicant(s) shall construct the noise barriers as shown on Figure 5.12-4. Required barrier heights may be achieved through the construction of walls, berms, or wall/berm combinations. With the construction of barriers ranging from three to six feet along the edge of pad or top of slope as

shown in Figure 5.12-4, noise levels at all ground-floor residential usable areas and the community park site would be at or below 65 CNEL. As indicated in Figure 5.12-4, the noise barrier adjacent to the community park may begin just north of the anticipated driveway at the southeast of the park.

A site design for the multi-family residential area is not available at this time. Mitigation of any exterior use areas could also be achieved through the site design by placing the exterior use areas on the sides of the building opposite the major project roadways (Olympic Parkway, Heritage Road and La Media Road). This would ensure that these areas are adequately shielded from roadway noise.

- Prior to issuance of the rough grading permit noise barriers shall be shown on wall and fence plans to the satisfaction of the Director of Building and Planning and the Environmental Review Coordinator.

5.12-2 Prior to approval of building permits for single-family areas where second floor exterior noise levels exceed 65 CNEL, an acoustical analysis shall be performed ensuring that interior noise levels due to exterior sources will be at or below 45 CNEL. Building plans will be available during design review and will permit the accurate calculation of transmission loss for habitable rooms. (lots 1 through 4, 6, 7 and 9 through 17 in R-6; lots 103, 104, 114, 115, and 129 in R5; lots 11, 12 [or 25-C if this lot will have a building] and 34 in R-25; and lots 3, 5 through 9, 11, 12, 14, 19 and 20 in R-4.) For these lots, it may be necessary for the windows to be able to remain closed to ensure that interior noise levels meet the interior standard of 45 CNEL. Consequently, the design for these units may need to include a ventilation or air conditioning system to provide a habitable interior environment with the windows closed based on the results of the interior acoustical analysis.

5.12-3 As stated in Title 24 of the State Building Code, prior to approval of design review permits for multi-family areas where first and/or second floor exterior noise levels exceed 60 CNEL, an acoustical analysis shall be performed ensuring that interior noise levels due to exterior sources will be below 45 CNEL. Building plans will be available during design review and will permit the accurate calculation of transmission loss for habitable rooms. (Portions of Neighborhoods R-14, MU-3, R-30, R-13, and R-12.) For these areas, it may be necessary for the windows to be

able to remain closed to ensure that interior noise levels meet the interior standard of 45 CNEL. Consequently, the design for buildings in these areas may need to include a ventilation or air conditioning system to provide a habitable interior environment with the windows closed based on the results of the interior acoustical analysis.

Football Stadium Noise

As discussed above, noise levels at receivers 2 through 8 (see Figure 5.12-3) are projected to exceed the applicable noise ordinance standard. The following mitigation measure would reduce ground-floor noise levels to below a level of significance.

5.12-4 Prior to the issuance of any building permit for Lots 21, 22, 27, 28, 29, 30, and 53 through 57 (see Figure 5.12-3), the applicant(s) shall construct four-foot-high barriers along the northern property line of the affected lots as shown on Figure 5.12-5.

Community Park Noise

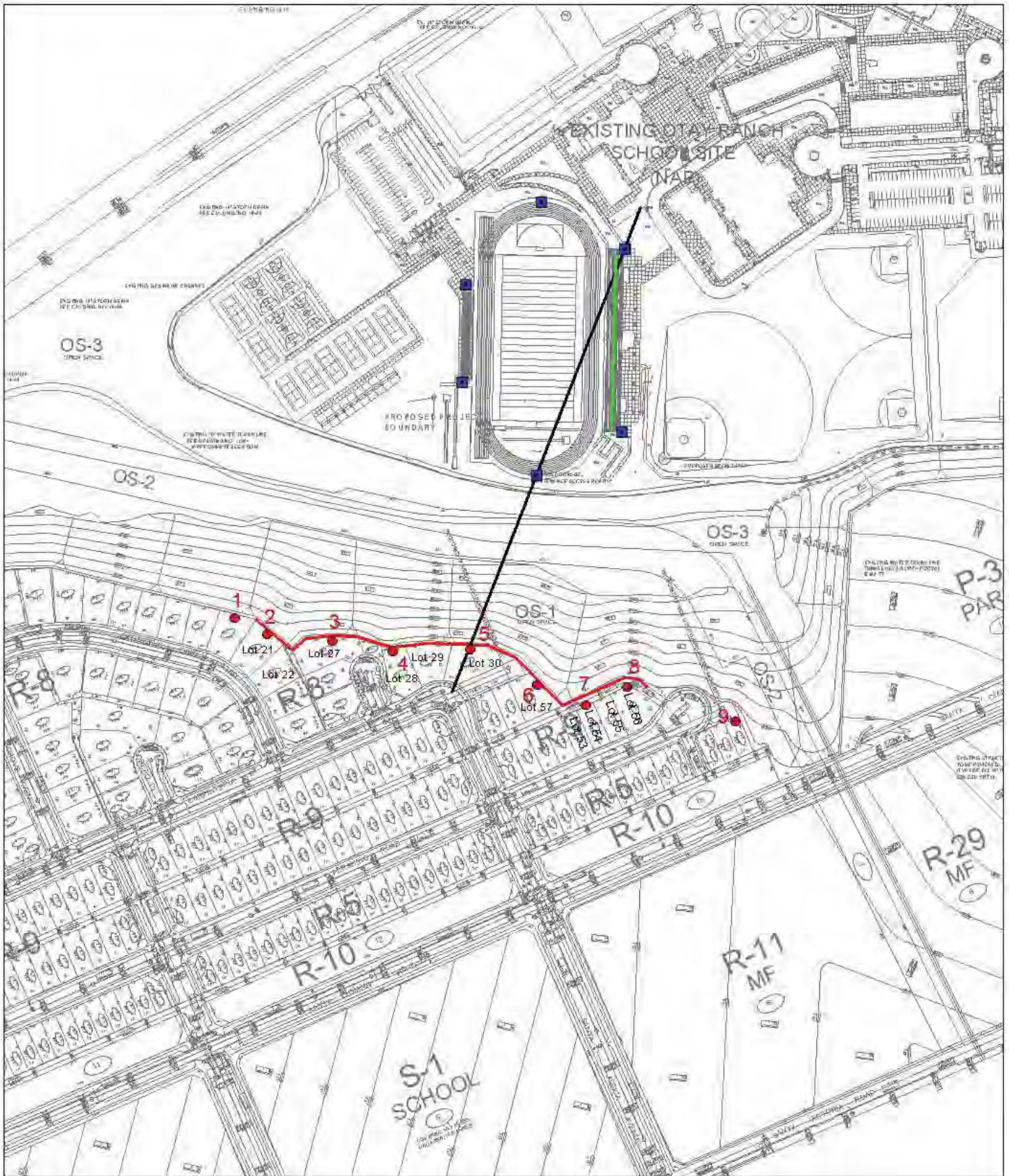
5.12-5 Prior to approval of a precise grading plan, an acoustical analysis shall be performed ensuring that noise levels do not exceed noise ordinance standards.

Industrial Noise

5.12-6 Prior to the issuance of a building permit for an industrial use on lots adjacent to residential uses, or adjacent to the Wolf Canyon wildlife area a noise analysis shall be completed demonstrating that the proposed use will not exceed the noise limits set by the City's Noise Control Ordinance.

5.12.6 Level of Significance After Mitigation

Implementation of the above mitigation measures would reduce all noise impacts to below a level of significance.



- Residential receiver location
- Modeled loudspeaker location
- ⚡ Four foot high barrier
- ⚡ Crowd noise location
- ⚡ Cross-section location



FIGURE 5.12-5

RECON

Football Stadium, Adjacent Residential Receivers, and Proposed Noise Barriers

5.13 Public Services and Utilities

This section discusses the availability of public services and utilities for the implementation of proposed SPA Plan. The Otay Ranch GDP Program EIR addressed existing conditions, potential impacts of the Otay Ranch GDP, and mitigation measures related to public services and utilities. Additional analysis of the availability, capacity, and additional services required as a result of regional growth were provided in the 1995 City of Chula Vista Sphere of Influence Update Program EIR. Both of these analyses are incorporated by reference.

In August 1989, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee (DIF) to pay for various public facilities within the city. The facilities are required to support future development within the city, and the fee schedule has been adopted in accordance with Government Code Section 66000. The proposed project will be subject to the payment of the fee at the rate in effect at the time building permits are issued.

5.13.1 Potable Water

Existing Conditions

The proposed project is located within the Otay Water District (OWD) service area. This discussion is based in part on information taken from the following documents, studies, and reports, which relate to the availability of potable water to serve the proposed project and other existing and planned development within the OWD service area:

1. Overview of Water Service for the Otay Ranch Company Villages Two, Three, a Portion of Four and PA 18b, prepared by Dexter Wilson Engineering, Inc., November 28, 2005 (Appendix I-1);
2. Otay Ranch Company Villages Two, Three and PA 18b SPA Water Conservation Plan, prepared by Dexter Wilson Engineering, Inc., February 2006 (Appendix I-2);
3. OWD Water Supply Assessment and Verification Report, prepared by Otay Water District, December 2003 (Appendix I-3);
4. OWD Water Resources Master Plan, August 2002;
5. The 2000 and 2005 Urban Water Management Plans (UWMP) prepared by the Metropolitan Water District of Southern California (MWD), San Diego County Water Authority (SDCWA) and OWD;
6. Report on MWD's Water Supplies, a Blueprint for Water Reliability, prepared by MWD, March 2003;

7. The Recirculated EIR for the City of Chula Vista General Plan Update (EIR No. 05-01; SCH No. 2004081066), September 19, 2005, including the accompanying water technical report (Appendix H); and
8. The Otay Ranch GDP Program EIR, as it relates to water supplies for the entire Otay Ranch and the region.

The documents listed in paragraphs 4 through 8, above, are available for public inspection and review at the City of Chula Vista, Planning & Building Department, 430 F Street, Chula Vista, California, and are incorporated by reference.

Potable water for the proposed project comes from the OWD. The OWD obtains its water from the SDCWA of which it is a member agency. The SDCWA purchases imported water from the MWD, and then wholesales the water to 23 water agencies in San Diego County, including the OWD. The OWD's primary source of potable supply is treated water delivered by SDCWA through its Pipeline No. 4. This potable supply is delivered from aqueduct connection Nos. 10 and 12 to the OWD Central Service Area, which includes the proposed project boundary, and is conveyed to the OWD's operating and emergency reservoirs.

The OWD has established criteria to determine pressure zone boundaries within new and existing developments. The criteria constitute minimum and maximum allowable pressures and maximum velocity thresholds allowed under specified operating conditions within the distribution system. Minimum pressure criteria are based on potable system and fire-fighting operational requirements, while the maximum pressure limitations are established to protect residential and commercial plumbing and distribution piping and appurtenances. There are currently five pressure zones within Otay Ranch to provide adequate water pressure to different pad elevations. Pressure zones 624 and 711 will serve the project area (Figure 5.13-1).

The OWD Central Service Area Pump Station is located at the 624-1 Zone Reservoir site (Figure 5.13-2). This station pumps water from the 624 Zone system into the 711 Zone distribution system and into two existing 711 Zone Reservoirs located in the EastLake Greens development. The 711 Zone Pump Station currently has five pumps, including one standby pump, each rated for 4,000 gallons per minute (gpm). These pumps result in a firm station capacity of 16,000 gpm. The major 711 Zone pipelines in the vicinity of the proposed SPA Plan include 16-inch and 20-inch lines in Olympic Parkway, a 20-inch line in Heritage Road, and a 16-inch line in La Media Road. A 12-inch stub has been provided in Heritage Road south of Olympic Parkway.

The 711 Zone has three existing operational reservoirs within the EastLake Greens development south of Otay Lakes Road. Reservoirs 711-1, 711-2, and 711-3 have capacities of 2.8, 2.2, and 16.0 million gallons (mg), respectively, for a total capacity of 21.0 mg. There are three existing reservoirs in the 624 Zone of the Central Service Area,

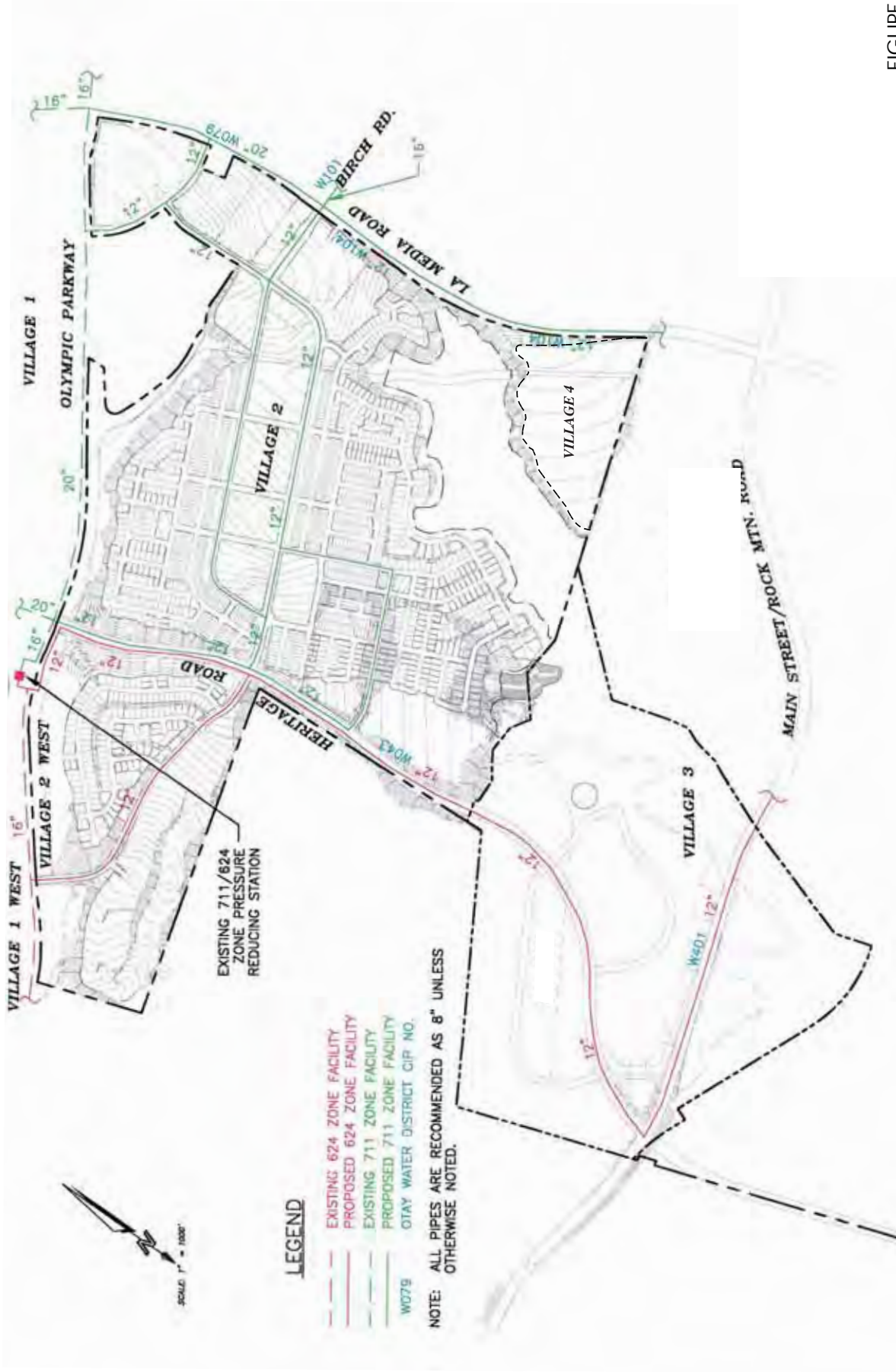


FIGURE 5.13-1
Existing and Proposed On-site Water Facilities

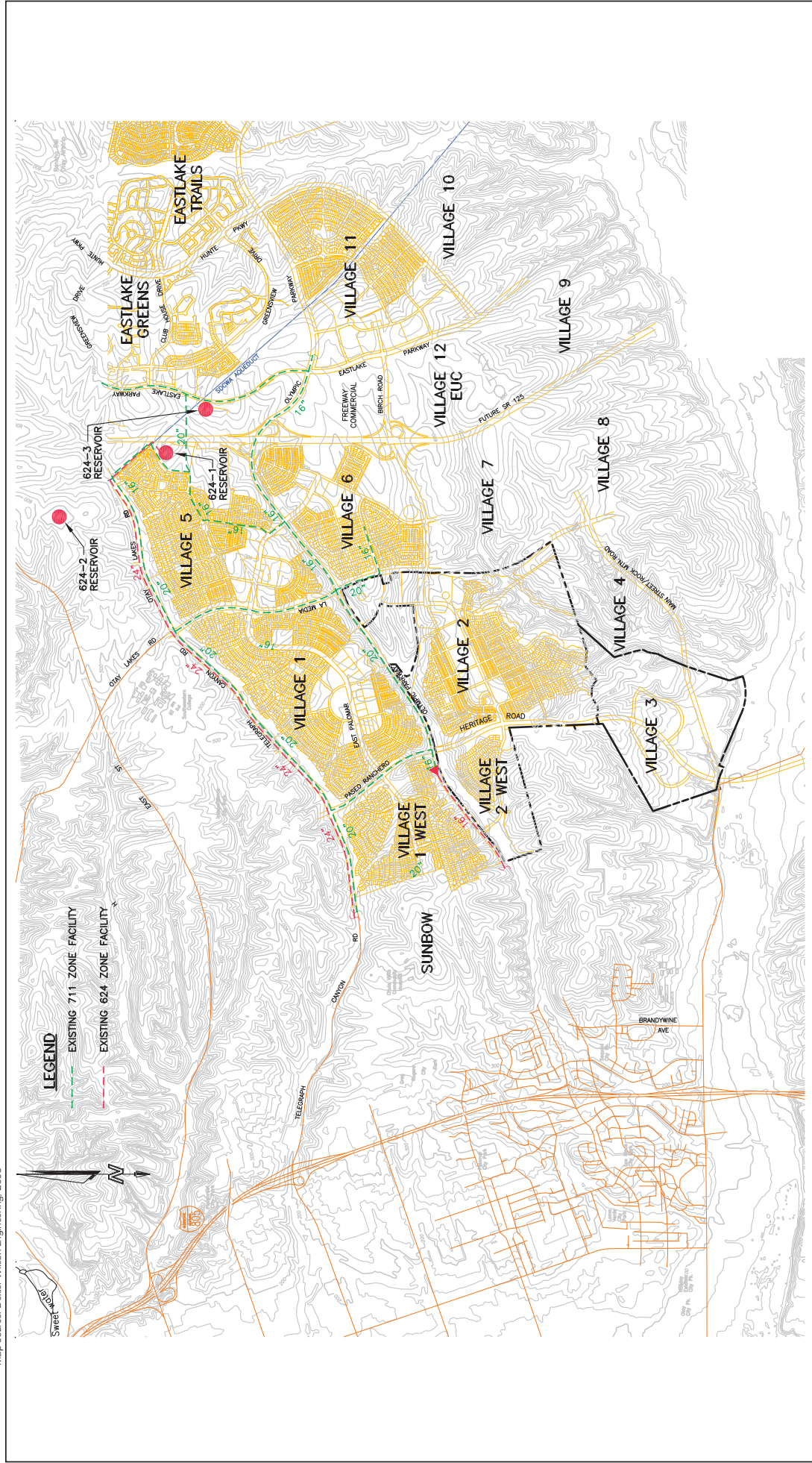


FIGURE 5.13-2
Reservoirs in the 624 Zone

including the 624-1 (12.4 mg) Patzig Reservoir adjacent to the Otay Ranch project, 624-2 (8.0 mg) Reservoir in EastLake I and 624-3 (30.0 mg) Reservoir in EastLake Greens, adjacent to EastLake Parkway. The OWD requires operational storage within each zone to have the following:

1. Operational capacity equal to 0.3 times the Maximum Daily Demand for the zone;
2. Emergency reserve capacity equal to the Maximum Daily Demand for the zone; and
3. The maximum fire flow volume for the zone.

Existing Plans and Policies

Wholesale Water Supply

Water imported to the San Diego region comes from two primary sources, Colorado River through the 240-mile Colorado River Aqueduct, and the State Water Project (SWP) from Northern California through the Sacramento-San Joaquin Delta and the 444-mile-long California Aqueduct. Both the Colorado River Aqueduct and the California Aqueduct are sources of water delivered to MWD, which then distributes the water to water agencies throughout the southern California region, including SDCWA. The SDCWA, as a wholesale agency, is comprised of 23 member agencies and receives the purchased imported water by gravity through aqueducts and pipelines. This infrastructure then supplies SDCWA's member agencies, including OWD, with water that serves the city of Chula Vista.

As of this writing, up to 90 percent of the San Diego region's water is imported from MWD through SDCWA. The SDCWA is MWD's largest member agency, purchasing up to 30 percent of MWD's supplies annually. Over the past several years, the SDCWA has been actively pursuing programs and projects to enhance water reliability by diversifying its water supply portfolio.

In 2003, representatives from the SDCWA and three water agencies, signed documents required to implement the Quantification Settlement Agreement (QSA), a landmark agreement that fundamentally changed the way Colorado River water is distributed and used in California. The QSA provides California a transition period to implement water transfers and supply programs that will reduce California's over-dependence upon the Colorado River and reduce the state's draw to its 4.4 million acre-feet apportionment. Important for San Diego County, the QSA cleared the way for an agreement to transfer up to 200,000 acre-feet of water annually from the Imperial Irrigation District (IID) to SDCWA; the initial term of this agreement is 45 years, which can be renewed for an additional 30 years if both parties agree. Also included in the QSA is a project to conserve water through the concrete lining of the All-American and Coachella Canals to prevent seepage losses, which will yield 77,000 acre-feet of water annually to SDCWA for 110 years. The Coachella lining project is expected to be complete by early 2007 and lining of the All-American Canal

is expected to be completed by 2008. When deliveries of these additional water supplies are fully implemented, San Diego County will receive nearly 280,000 acre-feet of new, annual, reliable water supplies.

In addition, the SDCWA is focusing on development of local water resources. These include efforts to make the most of local resources, including recycled water programs, use of modern reverse osmosis technology for the desalination of brackish (salty) groundwater in several different parts of the county, groundwater storage projects, and ongoing water conservation efforts that have saved more than 345,000 acre-feet of water since 1990. The SDCWA is also planning a seawater desalination plant adjacent to the Encina Power Plant in Carlsbad. If approved, the desalination plant would produce 56,000 acre-feet per year by 2015.

The QSA/IID water transfer, the canal lining projects and the seawater desalination plant are expected to produce a "drought-proof" supply that is not subject to reduction in dry years. As discussed below, the SDCWA's 2005 UWMP provides additional information about SDCWA's imported water supplies from MWD, other future water supplies, conservation efforts, and water shortage contingency planning. The SDCWA is expected to continue to supply water to the San Diego region to meet water demands, including OWD's potable water demands, through 2030.

Urban Water Management Plans (UWMP)

The state Urban Water Management Planning Act (UWMP Act) requires most water utilities to update an UWMP every five years. A UWMP is required in order for a water supplier to be eligible for the State Department of Water Resources (DWR) administered state grants and loans and drought assistance. A UWMP provides useful information on water demand, water supply, recycled water, water quality, reliability planning, demand management measures, best management practices and water shortage contingency planning. The UWMP Act requires preparation of a UWMP that:

1. Accomplishes water supply planning over a 20-year period in five year increments;
2. Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single-dry and multiple-dry years; and
3. Implements conservation and efficient use of urban water supplies.

MWD Regional Urban Water Management Plans

The Metropolitan Water District of Southern California is a public agency created by state legislation for the purpose of developing, storing, and distributing water to the residents of southern California. MWD currently receives imported water from two sources: (1) Colorado

River water via the Colorado River Aqueduct; and (2) State Water Project water via the California Aqueduct, which is owned and operated by DWR. MWD's service area covers the southern California coastal plain. The total area served is nearly 5,200 square miles and it includes portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties.

MWD is composed of 26 member agencies, including the SDCWA. Historically, MWD has been responsible for obtaining water for the southern California region, including San Diego County, through its operation of the Colorado River Aqueduct and its contract with DWR for SWP supplies. To date, MWD has increased its ability to supply water, particularly in dry years, through the implementation of storage and transfer programs.

On November 8, 2005, the MWD adopted its 2005 Regional UWMP, which is an update to its prior 2000 Regional UWMP. In the 2005 Regional UWMP, MWD continued to evaluate water supply reliability over at least a 20-year period in average, single-dry and multiple-dry years. To complete its most recent water supply reliability assessment, MWD developed estimates of total retail demands for the region, factoring in the impacts of conservation. After estimating demands, MWD's water reliability analysis identified current water supplies and supplies under development to meet projected demands in average, single-dry and multiple-dry years.

MWD's reliability assessment showed that MWD can maintain reliable water supplies to meet projected demand through 2030. MWD also identified buffer supplies, including other SWP groundwater storage and transfers that could serve to supply additional water needs. Appendix A-3 to the MWD 2005 Regional UWMP contains detailed justifications for the sources of supply projected to meet water demands in the region, including Colorado River Aqueduct deliveries (Colorado River supplies) and California Aqueduct deliveries (SWP supplies).

San Diego County Water Authority Urban Water Management Plans

The mission of the SDCWA is to provide a safe and reliable supply of water to its member agencies serving the San Diego region. The SDCWA's adopted 2000 UWMP assessed water demands for the San Diego region, compared water supplies with such demands through 2020 and identified existing and projected supplies to meet those demands in average, single-dry and multiple-dry years. On November 17, 2005, the SDCWA adopted its 2005 UWMP, updating the previously adopted 2000 UWMP.

Since adopting the 2000 UWMP, SDCWA and its member agencies have made considerable progress in conserving and diversifying its supplies. The SDCWA's 2005 UWMP reports that the San Diego region has conserved an average 40,500 acre-feet per year (af/yr) over the last five years. In addition, in 2003, conserved agricultural transfer water from the Imperial Valley began flowing to the San Diego region, which will provide

200,000 af/yr by 2021. This additional water supply is the result of SDCWA entering into the QSA with other water agencies in October 2003. The QSA resolved long-standing disputes regarding Colorado River water use among agencies, and established a water budget for the agricultural agencies. This permitted implementation of several water conservation and transfer agreements, including the SDCWA/IID transfer agreement. Transfers from IID began in late 2003 with the signing of the QSA. The SDCWA will receive up to 200,000 af/yr after an initial ramp-up in water deliveries.

Other supplies include 77,700 acre-feet from conservation projects to line the All-American Canal and the Coachella Canal, located in Imperial and Coachella Valleys. Deliveries of this conserved water will reach the San Diego region by 2007.

Since adoption of the 2000 UWMP, the SDCWA reports that it has completed numerous actions toward development of a seawater desalination facility at the Encina Power Plant in Carlsbad. This desalination project is anticipated to produce 56,000 af/yr of additional water supplies.

Sections 4 and 5 of SDCWA's 2005 UWMP contain documentation of SDCWA's existing and planned water supplies, including MWD supplies (imported Colorado River water and SWP water), SDCWA supplies (IID water transfer supplies, canal lining project water supplies and seawater desalination supplies), and local member agency supplies (surface water reservoirs, water recycling, groundwater and groundwater recovery).

In addition, Section 8 of SDCWA's 2005 UWMP continues to evaluate water supply reliability in average, single-dry and multiple-dry years. Based on SDCWA's water supply reliability assessment, SDCWA concludes that if the SDCWA and member agency water supplies are developed as planned, along with implementation of MWD's Integrated Resources Plan, no water shortages are anticipated within SDCWA's service area under average, single-dry or multiple-dry years through 2030. The SDCWA's 2005 UWMP also discloses that SDCWA is at risk for water shortages should supplies identified by MWD not be developed as planned. To alleviate this risk, the SDCWA is pursuing development of additional storage programs, and development of additional seawater desalination. According to SDCWA, a combination of storage and new supplies will provide the most reliable solution to alleviating risks during a dry period.

Litigation Effects on Availability of Imported Water Supplies

There is uncertainty created by currently pending litigation involving imported water supplies. For example, the SDCWA 2005 UWMP includes additional water supply resulting from the SDCWA/IID transfer. On November 5, 2003, IID filed a complaint in Imperial County Superior Court seeking validation of 13 contracts associated with the transfer agreement and the QSA. Imperial County and various private parties filed additional litigation in Superior Court, alleging violations of CEQA, California Water Code, and other

laws related to approval of the QSA, the IID water transfer, and related agreements. The lawsuits have been coordinated for trial. The IID, Coachella Valley Water District, MWD, SDCWA, and others are defending these suits and coordinating to seek validation of the contracts. Implementation of the IID water transfer are continuing during the litigation (see SDCWA 2005 UWMP, p. 4-2; OWD 2005 UWMP, p. 23).

On a related front, litigation has been filed in federal court challenging a project calling for the lining of a portion of the All-American Canal. Lining of the canal is required to prevent leakage, conserve water, and make water available for the San Diego/IID water transfer. The pending litigation has not impacted the project, and the water districts (SDCWA/IID) are moving forward on plans to line a portion of the canal.

In addition, DWR is still implementing SWP water delivery contracts pursuant to the principles developed under the Monterey Amendments. However, the EIR for the Monterey Amendments was successfully challenged in court (*Planning and Conservation League v. Department of Water Resources* [2000] 83 Cal.App.4th 892). The Monterey Amendments remain valid, but DWR is currently preparing a new EIR to address the environmental implications of the Monterey Amendments, which is due to be circulated for public review in 2006.

Finally, the CALFED Bay-Delta Program, which is administered by the California Bay-Delta Authority, is expected to provide the greatest opportunity for SWP supply reliability and water quality improvements. However, the outcome of this program remains uncertain. In October 2005, a state appellate court decision invalidated CALFED's program EIR (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2005) 133 Cal.App.4th 154). According to SDCWA's 2005 UWMP, the court upheld the CALFED Program EIR on a number of issues, but concluded that the EIR should have analyzed an alternative that reduced water exports from the Delta to southern California. The court also found that the EIR inadequately discussed impacts of diverting water to meet CALFED's goals and did not include sufficient information about the "Environmental Water Account" component of the CALFED program.

On November 15, 2005, the state Attorney General filed a petition for review of the appellate court decision with the California Supreme Court. As of this writing, the petition is still pending.

Despite the uncertainties created by the above litigation, the MWD and SDCWA 2005 UWMPs provide that there are sufficient water supplies to meet existing and projected demand, including demand in the San Diego region. This demand encompasses the existing and planned development within the OWD service area, including the proposed project.

In addition, the City of Chula Vista has protective measures in place regarding water supply and distribution. The goal of the City's Growth Management Program is to ensure that the supply of water required by existing and future residents is available from suppliers and is at a level of quality necessary for its intended use. The Growth Management Program has two objectives regarding water supply and distribution: (1) ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth; and (2) ensure that water quality standards are not jeopardized during growth and construction.

The Chula Vista Growth Management Ordinance, Municipal Code Section 19.09.050C, requires a Water Conservation Plan (WCP) to be submitted with all SPA Plans. If a SPA Plan is not required, a WCP is required to be submitted with Tentative Subdivision Maps. The Growth Management Program further requires that a Water Conservation Plan be submitted for all major development projects, defined as residential projects consisting of 50 dwelling units or greater, or commercial and industrial projects with 50 Equivalent Dwelling Units (EDUs) of water demand or greater.

The City also ensures that an adequate supply and quality of water is provided to accommodate new master planned developments, prior to project approval, by implementing a set of project processing requirements for applicants to follow through each stage of development. Processing requirements are for General Development Plans, SPA Plans, PFFPs, and Tentative Maps. Specifically, the City's existing regulations require a PFFP for the SPA Plan component of this project. Prior to approval of the first final map for the project, the applicant is required to obtain OWD's agreement to construct all potable water facilities required to serve the project. These facility improvements must be financed or installed in accordance with the fees and phasing in the project's approved PFFP. Under Chula Vista Municipal Code Section 19.09.100, if the facilities or improvements within a PFFP are inadequate to accommodate further development within a particular area, a reporting, notification, and hearing process is required.

If, after notice and hearing, the City Council determines that a deficiency exists, then no further building or development permits will be issued within the affected area, and development will cease until an amendment to the applicable PFFP is approved by the City Council, which mitigates the identified deficiency. This existing regulatory process would apply in the event that the identified water supplies were found to be insufficient to serve the project in future years. Thus, the City's existing regulatory process ensures that an adequate supply of water will be provided to accommodate new master plan developments, such as the proposed project.

Otay Water District Urban Water Management Plans

The OWD 2000 UWMP assessed the OWD's water supply sources, water demands, water supply reliability, supply and demand comparison provisions, demand management, water shortage contingency plan, and water recycling through 2020. OWD's 2000 UWMP stated

that because OWD is dependent on imported water provided by the SDCWA, water supply depends on the reliability of water supplied by MWD and SDCWA. The 2000 UWMP described measures to ensure a reliable water supply. These measures included water conservation measures, emergency and operational storage, and interagency agreements with neighboring water agencies.

On December 7, 2005, OWD's Board of Directors adopted the updated OWD 2005 UWMP. Section 2 of the 2005 UWMP provides an overview of OWD's service area, its current water supply sources, supply reliability, water demands, measures to reduce water demand, and planned water supply projects and programs. Section 7 of the 2005 UWMP contains OWD's water service reliability assessment. This section states that the level of reliability is based on the documentation in the UWMPs prepared by MWD and SDCWA and that these agencies have determined that they will be able to meet potable water demands through 2030, during normal and dry year conditions. According to the 2005 UWMP, OWD currently relies on MWD and SDCWA for its potable supply, and OWD has worked with these agencies to prepare consistent demand projections for OWD's service area.

Otay Water District Water Resources Master Plan

The OWD Water Resources Master Plan (WRMP) identifies the capital facilities needed to provide an adequate, reliable, flexible, and cost-effective potable and recycled water system for the delivery of OWD, City of San Diego, SDCWA, and/or MWD water supply to meet approved land use development plans and growth projections within the planning area consistent with SANDAG's forecasts. Proposed potable and recycled facilities, and expansions to existing facilities, are identified in the WRMP with required capacity, phasing, and estimated probably capital costs.

Consistent with the WRMP, OWD plans, designs and constructs water system facilities to meet projected ultimate demands placed on potable and recycled water systems in the OWD service area. The WRMP also forecasts needs and plans for water supply requirements to meet projected demand at ultimate build out. The necessary water facilities are constructed when development activities proceed and require service to achieve adequate cost-effective water service.

New water facilities that are required to accommodate the forecasted growth within the entire OWD service area are defined and described within the OWD WRMP. These facilities are incorporated into the annual OWD Five-Year Capital Improvement Program (CIP) for implementation when required to support development activities. As major development plans are formulated and proceed through the land use jurisdictional agency approval processes, OWD prepares water system requirements specifically for the proposed development project consistent with the WRMP. These requirements document, define, and describe all the water and recycled water system facilities to be constructed to provide an acceptable and adequate level of service to the proposed land uses, as well as the financial

responsibility of the facilities required for service. The OWD, through collection of water meter capacity fees, funds the facilities identified as CIP projects. The water meter capacity fees were established to fund the CIP project facilities. The developer funds all other required water system facilities to provide water service to their project.

Otay Water District Integrated Resources Plan

The OWD has implemented an Integrated Resources Plan (IRP) for the development of local water supplies during normal and emergency conditions. The OWD's goals are to obtain 40 percent of its annual water demand from local water sources when water is not available through the SDCWA. Also, OWD seeks to obtain up to 70 percent of annual water demand locally when water is available from SDCWA in order to have a stored supply during periods when SDCWA cannot supply the needed amount to the OWD. Benefits of the IRP include the ability of OWD to meet customer water demands during periods of drought and to provide the lowest possible water rates to its customers.

In the event of an aqueduct shutdown, the OWD policy is to provide a maximum of five average days of emergency storage capacity and a minimum of five average days of supply from interconnections and other sources to meet operational demands. Its goal is to meet a maximum of one-half of the 10 average annual days from storage, and the other one-half or more from alternative sources. The OWD currently maintains emergency storage reserves equal to at least five days of average annual demand in each service area, including the Central Service Area, of which the proposed project is a part.

Subarea Water Master Plan

In April 2001, several public water agencies in the San Diego region, including OWD, formed a committee to work toward the adoption and publication of a common set of Design Guidelines for planning and design of potable water, recycled water, raw water, and sewer facilities. The result of these planning efforts is the water agencies' Design Standards. These standards are considered design guidelines for water facilities, and are typically required on tract map subdivisions, complex industrial/commercial developments, and other unique high water demands.

Senate Bills 610 and 221

The California Legislature recently adopted legislation that addressed water supply planning efforts. The legislation, commonly referred to as SB 610 and SB 221, are now codified in Water Code §§10910-10914 and Government Code §§65867.5, 66455.3, and 66473.7. The new law places requirements on individual projects, and requires consideration of water supplies and demands for a proposed project. The legislation applies to the proposed project.

Water Code §§10910, et seq. requires that the water purveyor of a public water system prepare a water supply assessment to be included in the environmental documentation for projects specified in Water Code §10912. These projects include, among others, residential projects of more than 500 units, shopping centers of more than 500,000 square feet, and industrial facilities with more than 650,000 square feet of floor area.

The law enacting SB 221 requires written verification from the water purveyor that sufficient water supplies are available for certain large residential subdivisions prior to approval of a tentative map. The proposed project is located in the OWD service area; therefore, the City has requested that OWD prepare a water supply assessment and verification report for the proposed project.

Otay Water District Water Supply Assessment and Verification Report

In December 2003, OWD prepared a "Water Supply Assessment and Verification Report" for the proposed project, in consultation with the SDCWA and the City of Chula Vista (WSAV Report). The WSAV Report was prepared by OWD, pursuant to Public Resources Code §21151.9 and Water Code §§10910 et seq. (referred to as SB 610) and Government Code §§65867.5, 66455.3 and 66473.7 (referred to as SB 221). The new law is intended to improve the link between information on water supply availability and certain land use decisions made by cities and counties.

The City of Chula Vista requested the WSAV Report as part of the environmental review of the proposed project. The City also requested that OWD prepare both the water supply assessment and water verification concurrently for the proposed project.

The WSAV Report evaluates water supplies that are or will be available in normal/average, single-dry and multiple-dry years over a 20-year horizon in order to meet existing and project demand, as well as other planned future water demand within the OWD service area. The WSAV Report identifies the water demand projections for the proposed project and finds that such demands are included in the water demand forecast found in the 2000 UWMPs of MWD, SDCWA, and OWD. Based on the information prepared in the WSAV Report, OWD verified that there are sufficient water supplies over a 20-year planning horizon to meet the project's demand and the existing and other planned development within the OWD service area, during normal/average, single-dry and multiple-dry years.

Since preparation of the WSAV Report in December 2003, MWD, SDCWA and OWD have prepared updated UWMPs, which document the availability of water supplies to meet existing and projected water demands, including demands in the SDCWA/OWD service areas. Although the water supply and demand figures in the WSAV Report are different from those reported in the operative 2005 UWMPs, the WSAV Report and the 2005 UWMPs, together, contain findings verifying that there are sufficient water supplies to serve the

proposed project and the existing and other planned development within the OWD service area in normal/average, single-dry and multiple-dry years.

Reliability of Supply

The OWD currently obtains 100 percent of its potable water supply as imported water from the SDCWA. The SDCWA, in turn, obtains imported water from MWD, who has prepared regional UWMPs in 2000 and 2005. The reliability of OWD's potable supply is dependent on these wholesale agencies (MWD/SDCWA). The OWD is committed to investing alternative water sources, such as groundwater or desalination, that would reduce its dependence on imported water. However, none of these alternative sources can be considered a firm supply at this point in time.

The MWD's 2000 and 2005 Regional UWMPs include discussion of supply reliability. MWD uses a computer model to evaluate 70 years of historic hydrology, and to develop estimates of water surplus or shortage. The driest year on record was 1977 (i.e., the "dry year"), and the driest three-year period was 1990-92 (i.e., the "multiple-dry years"). The analysis determined that MWD could maintain reliable supplies during normal/average or dry-year conditions if they re-occurred during the period 2005 through 2025. The analysis included new supplies under development as part of MWD's IRP, updated in 2003.

The SDCWA's 2000 and 2005 UWMPs also include discussion of supply reliability. The SDCWA will continue to rely on MWD to help meet water demands. The SDCWA is also developing its own supplies, as discussed most recently in Section 2.11 of the OWD 2005 UWMP. The SDCWA prepared an assessment of its supply reliability during a normal year, a dry year (1989), and multiple dry years (1989-1991). The SDCWA's analysis showed that it would meet demands under all three hydrologic conditions through the year 2030.

The OWD works closely with the SDCWA and MWD in future supply planning. These wholesale water agencies have determined that they will be able to meet their projected demands through 2030, which include potable water demands of OWD. Based on the information provided by MWD and SDCWA, OWD has independently determined that these wholesale agencies will be able to deliver water to meet OWD's existing and planned water demands, including the demand from the proposed project. Individual components of the supply, such as the Colorado River and SWP supplies, will experience drought from time-to-time. These drought conditions may reduce the amount of available Colorado River and/or SWP supplies. However, the diversified improvements put in place by MWD and SDCWA have led these agencies to conclude that they will be able to meet demands for the next 25 years. In addition, SDCWA has provided OWD with documentation of the reliability of its supplies. The documentation is included in Appendix H to the OWD 2005 UWMP.

Water supply and demand tables are included in Section 7 of the OWD 2005 UWMP. This data shows projected demand and supply during normal/average, single-dry and multiple-

dry years. The projected supply in these tables is equal to the projected demand, based on the information provided by the SDCWA and MWD. If OWD's future demands are slightly more or less than currently projected, OWD anticipates that the supply portfolio maintained by the SDCWA and MWD will be flexible enough to continue to meet OWD's existing and projected demands through 2030.

Recycled water demands are to be met with recycled water from OWD's Ralph W. Chapman Water Recycling Facility (RWCWRF) and the City of San Diego's South Bay Water Reclamation Plant (SBWRP). During dry periods, many conservation measures are focused on reducing outdoor water use, which does not contribute to wastewater flow. In addition, because both of these plants are stripping plants, the recycled water output is limited by the treatment capacity and not by the supply of raw wastewater. Therefore, OWD's recycled supply is not expected to be subject to reduction during dry periods.

Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on potable water if it would:

- Threshold 1: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Threshold 2: Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements needed.
- Threshold 3: As part of its General Plan, the City has adopted a Growth Management Ordinance (Chapter 19.09) that imposes water threshold standards and requires all major development projects to prepare a WCP. A copy of the SPA Plan WCP is available for public review at the City of Chula Vista, Planning and Building Department, 430 F Street, Chula Vista, California, and incorporated by reference in this EIR. These threshold standards are established to ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth.

Therefore, impacts to potable water would be significant if the proposed project would exceed City threshold standards which seek to ensure that adequate supplies of quality water, appropriate for intended use, are available. The standards require the following actions.

- The applicant must request and deliver to the City service availability letters from the appropriate water district for each project at the tentative map level.

- The applicant is required to submit a Water Conservation Plan along with a SPA Plan application.
- The project plans shall ensure an adequate supply of water on a long-term basis prior to the development of each Otay Ranch SPA.

Impacts

Threshold 1: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

There are no off-site facilities that need to be constructed to provide water service to the proposed project. On-site, the proposed project can receive water service by expanding the existing 624 and 711 Zone water systems. Figure 5.13-1 shows the existing and proposed on-site water facilities for the proposed SPA Plan.

The OWD WRMP identifies 12-inch 624 Zone lines in Heritage Road, Otay Valley Road, and portions of La Media Road. Since the only current source of 624 Zone water in the vicinity of the project is the 16-inch line in Olympic Parkway, adequate looping in the 624 Zone system would be required. A second source of 624 Zone water would be provided by a 12-inch line in Otay Valley Road that extends easterly to the future extension of EastLake Parkway, as shown in Figure 5.13-1. The proposed SPA Plan would have lot elevations ranging from 200 to 475 feet within the 624 Zone. Service to these lots from the 624 Zone would result in maximum static pressures ranging from 65 pounds per square inch (psi) to 184 psi.

The proposed 711 Zone transmission lines adjacent to the proposed SPA Plan site include a 16-inch line in La Media Road and a 12-inch line in Heritage Road. The proposed SPA Plan would have lot elevations ranging from 380 to 495 feet within the 711 Zone. Service to these lots from the 711 Zone would result in maximum static pressures ranging from 94 psi to 143 psi.

As stated above, there are no off-site facilities that need to be constructed to provide water service to the proposed project. On-site, the proposed project can receive water service by expanding the existing 624 and 711 Zone water systems. Therefore, the proposed SPA Plan would not require or result in the construction of new water treatment facilities or expansion of existing facilities, which could cause significant environmental effects.

Threshold 2: Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

Average annual day (AAD) water demands for the proposed SPA Plan were estimated through application of the way duty method as specified in the OWD's planning criteria. The method involves assigning a representative unit water demand to each land use type in the planning area. Demand projections for the project are then computed by multiplying the dwelling units or acreage planned for each land use category by the corresponding water duty. Projected potable water demands for the proposed project are listed in Table 5.13-1. The projected potable water demand for the project area is 1.57 mgd or 1,732 acre-feet per year. This demand projection is consistent with the projected water demand included in the WSAV prepared by OWD and OWD's WRMP and UWMP planning in 2000 and 2005. The estimated annual potable water demand for the community park within a portion of the project will be approximately 12,500 gpd. In addition, based on existing City pool facilities, the average swimming pool water demand will be approximately 2,000 gpd. Therefore, the total estimated potable water demand at the community park site is 14,500 gpd.

In accordance with Water Code §10910(c)(2) and Government Code §66473.7(c)(3), information from OWD's UWMP planning in 2000, was used to prepare the WSAV Report for the proposed project. The WSAV Report was approved by OWD's Board of Directors on January 14, 2004. The WSAV Report confirms that water demand projections for the project were included in the water demand forecasts of the water-related planning documents of OWD, SDCWA, and MWD. The WSAV Report also confirms that supplies are available to meet water demand. While OWD's 2005 UWMP was issued after completion of the WSAV Report, OWD's 2005 UWMP supports the findings contained in the WSAV Report. The OWD 2005 UWMP is also supported by the UWMPs prepared and approved by MWD and SDCWA in 2005. The water supply and demand figures vary between the WSAV Report and the recently adopted OWD 2005 UWMP, however, the critical finding remains the same, namely that water supplies are available to meet demand for the San Diego region, including the proposed project.

Table 5.13-2 presents the projected potable and recycled water demand for uses within the OWD service area. The normal/average, single-dry, and multiple-dry year scenarios, within a 20-year projection, are shown in Table 5.13-3. As seen from this table, supplies will be adequate to meet future demands in normal and dry-year periods.

**TABLE 5.13-1
OTAY RANCH VILLAGES TWO, THREE, AND A PORTION OF FOUR
PROJECTED POTABLE WATER DEMANDS**

Neighborhood	Land Use	Quantity	Unit Demand	Total Average Demand, gpd
Village 2				
R-4	SF	160 units	500 gpd/unit	80,000
R-5	MF	130 units	300 gpd/unit	39,000
R-6	SF	63 units	500 gpd/unit	31,500
R-7	SF	44 units	500 gpd/unit	22,000
R-8	SF	51 units	500 gpd/unit	25,500
R-9	SF	101 units	500 gpd/unit	50,500
R-10	MF	90 units	300 gpd/unit	27,000
R-11	MF	144 units	300 gpd/unit	43,200
R-12	MF	295 units	300 gpd/unit	88,500
R-13	MF	149 units	300 gpd/unit	44,700
R-14	MF	137 units	300 gpd/unit	41,100
R-15	SF	45 units	500 gpd/unit	22,500
R-16	MF	74 units	300 gpd/unit	22,200
R-17	MF	119 units	300 gpd/unit	35,700
R-18A	SF	66 units	500 gpd/unit	33,000
R-18B	SF	46 units	500 gpd/unit	23,000
R-19	SF	83 units	500 gpd/unit	41,500
R-20	SF	83 units	500 gpd/unit	41,500
R-21	SF	64 units	500 gpd/unit	32,000
R-23	SF	71 units	500 gpd/ac	35,500
R-24	SF	41 units	500 gpd/unit	20,500
R-25	SF	68 units	500 gpd/unit	34,000
R-26	MF	75 units	300 gpd/unit	22,500
R-27	MF	110 units	300 gpd/unit	33,000
R-28	MF	85 units	300 gpd/unit	25,500
R-29	MF	152 units	300 gpd/unit	45,600
R-30	MF	180 units	300 gpd/unit	54,000
MU-1	MF	10 units	300 gpd/unit	3,000
MU-2	MF	12 units	300 gpd/unit	3,600
MU-3	MF	38 units	300 gpd/unit	11,400
MU-1	Commercial	1.1 acres	1,785 gpd/ac	1,960
MU-2	Commercial	1.4 acres	1,785 gpd/ac	2,500
MU-3	Commercial	4.3 acres	1,785 gpd/ac	7,680
C-1	Commercial	11.9 acres	1,785 gpd/ac	21,240
IND-1	Industrial	51.5 acres	893 gpd/ac	45,990
IND-2	Industrial	6.7 acres	893 gpd/ac	5,980
IND-3	Industrial	29.7 acres	893 gpd/ac	26,520
CPF-1	Community	1.2 acres	893 gpd/ac	1,070
CPF-2	Community	0.9 acres	893 gpd/ac	800
CPF-3	Community	1.0 acres	893 gpd/ac	1,520
CPF-4	Community	1.5 acres	893 gpd/ac	1,340
CPF-5	Community	0.8 acres	893 gpd/ac	710
S-1	School	10.3 acres	1,785 gpd/ac	18,390
P-1	Park	1.4 acres	---	---
P-2	Park	7.1 acres	---	---
P-3	Park	6.9 acres	---	---
HS	High School	50 acres	1,785 gpd/ac	89,250#
FS	Fire Station	1.5 acres	893 gpd/ac	1,340#

**TABLE 5.13-1
OTAY RANCH VILLAGES TWO, THREE, AND A PORTION OF FOUR
PROJECTED POTABLE WATER DEMANDS
(continued)**

Neighborhood	Land Use	Quantity	Unit Demand	Total Average Demand, gpd
OS	Open Space	20.0† acres	2,155gpd/ac	43,100
Streets	Circulation	68.3 acres	---	---
Village Three				
IND-1	Industrial	54.5 acres	893 gpd/ac	48,670
IND-2	Industrial	26.4 acres	893 gpd/ac	23,580
IND-3	Industrial	50.1 acres	893 gpd/ac	44,740
IND-4	Industrial	26.4 acres	893 gpd/ac	23,580
IND-5	Industrial	11.3 acres	893 gpd/ac	10,090
IND-6	Industrial	7.8 acres	893 gpd/ac	6,960
CPF-6	Community	10.2acres	893 gpd/ac	9,110
Village Four				
P-4	Park	44.2 acres		14,500‡
TOTAL				1,393,530

*To be irrigated with recycled water. The use of potable water will be nominal.

†Only includes open space areas to be irrigated with potable water.

‡The majority of the Village Four Community Park will be irrigated with recycled water, but a preliminary analysis indicated an estimated average potable use of 14,500 gpd.

#Water demands for the high school and fire station are provided for reference only and not included in the total water demand. The September 10, 2002 Water System Analysis for the Otay Ranch SPA 1 High School site provided the demands for these facilities.

**TABLE 5.13-2
OWD WATER DEMAND
(acre-feet)**

Water Use Sectors	Potable					Recycled				
	2005	2010	2015	2020	2025	2005	2010	2015	2020	2025
Single-Family Residential	17,773	20,604	23,886	27,690	31,000	0	0	0	0	0
Multi-Family Residential	2,302	2,669	3,094	3,578	4,000	198	242	286	330	374
Commercial & Industrial	3,528	4,090	4,741	5,496	6,200	131	160	189	218	248
Institutional & Governmental	2,421	2,807	3,254	3,772	4,100	250	306	361	417	472
Landscape	7,256	8,412	9,752	11,305	13,200	2,601	3,172	3,744	4,325	4,896
Agricultural	198	230	267	310	200	0	0	0	0	0
TOTAL	33,478	38,812	44,994	52,151	58,700	3,180	3,880	4,580	5,290	5,990

SOURCE: OWD WSA 2004.

**TABLE 5.13-3
OWD PROJECT WATER SUPPLY AND DEMAND
DURING SINGLE- AND MULTIPLE-YEAR DRY PERIOD
(acre-feet per year)**

Supply Type	Normal Water Year (2025)	Single-Dry Water Year (2025)	Multiple-Dry Water Years*		
			Year 1 (2005)	Year 2 (2006)	Year 3 (2007)
Imported water	58,700	62,809	35,821	37,399	39,045
Local recycled water	5,990	5,990	3,180	3,320	3,460
Local groundwater	0	0	0	0	0
TOTAL Supply Requirement	64,690	68,799	39,001	40,719	42,505
TOTAL Project Demand	64,690	68,799	39,001	40,719	42,505

*Dry water years were assumed to generate a severe percent increase in demand for each year in addition to new demand growth.

Projected potable water resources to meet demands will be supplied with imported water received from SDCWA. As discussed in Section 5.13.1, Existing Conditions, above, to meet future demands and diversify supplies, SDCWA is implementing the IID water transfer, the All-American Canal and Coachella Canal lining projects, and planning for seawater desalination. Table 5.13-4 summarizes the planned yields from these supply projects.

**TABLE 5.13-4
SDCWA PROJECTED REGIONAL WATER SUPPLIES
(acre-feet/year)**

Water Supply Sources	2005	2010	2015	2020	2025
SDCWA/IID Transfer	30,000	70,000	100,000	190,000	200,000
AAC and CC Lining Projects	0	77,700	77,700	77,700	77,700
Seawater Desalination*	0	56,000	56,000	56,000	56,000
Total Project Supplies	30,000	203,700	233,700	323,700	333,700

SOURCE: OWD 2003.

*The SDCWA is currently pursuing a 50 mgd seawater desalination facility at the Encina Power Plant in Carlsbad that will yield approximately 56,000 acre-feet per year. According to SDCWA, the facility could be expanded to 80-100 mgd in the future and/or other facilities constructed to increase this supply source.

These water sources are considered “drought-proof” supplies and should be available at the yields shown in the table above in both dry and multiple-dry year scenarios, based on OWD planning documents (e.g., OWD 2005 UWMP).

As described in the Existing Conditions section above, both Water Code §§10910 (SB 610) and Government Code §66473.7 (SB 221) place requirements on individual projects, and require consideration of the provision of water. Pursuant to the new law, the OWD prepared the WSAV Report that confirms the availability of a long-term water supply to meet the demands of the proposed project in conjunction with other planned and future uses, in both the short term and long term. The WSAV Report relied on water supply forecasts based on the projected potable water demands supplied with imported water received from SDCWA. To meet these future demands and diversify supplies, SDCWA relies in part on the IID water transfer. Projected water for the year 2025 will include 200,000 acre-feet from the IID transfer, 77,700 acre-feet from the All-American Canal and Coachella Canal lining projects and 56,000 acre-feet from seawater desalination. The WSAV Report details the contractual and written proof of the availability of these sources from the SDCWA. As discussed above, the agreement that provides for the IID water transfer is being challenged in court. In light of this litigation, the assumption that the IID water transfer water will be available is questionable, and it is possible that the water from IID will not be available as anticipated. In the absence of this water source, a significant water supply impact would result.

The WSAV Report relied on the OWD 2000 UWMP. In order to update information from the WSAV Report, several water supply and demand tables were prepared based on the OWD 2005 UWMP. Table 5.13-5, below, shows OWD's existing and future water demand projected through 2030. These demands are higher than those projected in Table 5.13-2, above, in order to account for the updated water planning by OWD in its 2005 UWMP.

**TABLE 5.13-5
OWD WATER DEMAND BASED ON 2005 UWMP**

	FY 2005	FY 2010	FY 2015	FY 2020	FY 2025	FY 2030
Single-family Residential	19,850	25,442	29,130	33,316	37,211	42,089
Multi-family Residential	2,893	3,708	4,245	4,855	5,423	6,134
Commercial/Industrial	1,549	1,986	2,274	2,600	2,904	3,285
Institutional/Gov't	2,115	2,711	3,104	3,550	3,965	4,485
Landscape	8,512	10,910	12,491	14,286	15,956	18,048
Agriculture	2,268	2,907	3,328	3,806	4,251	4,809
Other/Unaccounted for	511	655	749	857	957	1,083
TOTAL	37,697	48,318	55,322	63,272	70,668	79,933

SOURCE: OWD 2005 UWMP

Table 5.13-6, below, shows how the increased demand will be met with projected supplies in a normal/average water year through 2030. Thus, the OWD 2005 UWMP has increased demands in comparison to the 2000 UWMP, but due to increased supply, the analysis indicates that water is available to meet existing and future needs of development within the SDCWA/OWD service area, including the proposed project.

**TABLE 5.13-6
PROJECTED NORMAL YEAR SUPPLY AND DEMAND COMPARISON BASED ON 2005 UWMP
(acre-feet/year)**

	FY 2005	FY 2010	FY 2015	FY 2020	FY 2025	FY 2030
Water Authority	37,618	45,772	52,349	59,799	66,560	75,108
Recycled	1,155	4,040	4,684	5,430	6,294	7,297
Total Supply	38,773	49,812	57,033	65,229	72,854	82,405
Supply as % of Year 2005	100%	128%	147%	168%	188%	212%
Total Demand	38,773	49,812	57,033	65,229	72,854	82,405
Demand as % of Year 2005	100%	128%	147%	168%	188%	212%
Difference (supply-demand)		0	0	0	0	0

NOTE: The total demand figures in this table are slightly higher than those reflected in Table 5.13-5, above, because the 2005 UWMP added additional demand for system losses.

SOURCE: OWD 2005 UWMP

Table 5.13-7, below, reflects the projected single-dry year supply and demand comparison. During dry years, water demands can be expected to increase. The SDCWA uses a computer model known as CWA-MAIN to estimate water demands. CWA-MAIN uses demographic and economic data, as well as weather data, to estimate water demands. Using CWA-MAIN, SDCWA estimated dry-year demands for five-year increments from 2010 through 2030. On average, the dry-year demands were 7 percent higher than the normal demands. The OWD has elected to use the same 7 percent factor to estimate its dry-year demands. The weather that causes higher demands was considered to be a dry year such as 1989. The OWD's recycled water supply was assumed to be "drought-proof" and not subject to reduction during dry periods.

**TABLE 5.13-7
PROJECTED SINGLE DRY-YEAR SUPPLY AND DEMAND COMPARISON BASED ON 2005 UWMP
(acre-feet/year)**

	FY 2010	FY 2015	FY 2020	FY 2025	FY 2030
Water Authority	49,259	56,341	64,365	71,660	80,876
Recycled	4,040	4,684	5,430	6,294	7,297
Total Supply	53,299	61,025	69,795	77,954	88,173
% of Normal Year	107%	107%	107%	107%	107%
Total Demand	53,299	61,025	69,795	77,954	88,173
% of Normal Year	107%	107%	107%	107%	107%
Difference (supply-demand)	0	0	0	0	0

SOURCE: OWD 2005 UWMP

Tables 5.13-8 and 5.13-9, below, reflect the projected multiple-dry year supply and demand comparisons through year 2010 and 2015, respectively. This multiple-dry year assessment is consistent with the projected buildout of the proposed project (2010). Dry-year demands were assumed to be 7 percent higher than normal demands. The multiple-dry year period was assumed to be similar to the 1989-1991 three-year drought period. The available recycled supply was assumed to increase to 4,040 acre-feet/year beginning in FY 2008, the

first full fiscal year after completion of the infrastructure to bring recycled water from the SBWRP to OWD.

**TABLE 5.13-8
PROJECTED SUPPLY AND DEMAND COMPARISON
DURING MULTIPLE DRY-YEAR PERIOD ENDING IN 2010 BASED ON 2005 UWMP
(acre-feet/year)**

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Water Authority	42,619	44,982	44,534	46,896	49,259
Recycled	1,230	1,230	4,040	4,040	4,040
Total Supply	43,849	46,212	48,574	50,936	53,299
% of Normal Year	107%	107%	107%	107%	107%
Total Demand	43,849	46,212	48,574	50,936	53,299
% of Normal Year	107%	107%	107%	107%	107%
Difference (supply-demand)	0	0	0	0	0

SOURCE: OWD 2005 UWMP

**TABLE 5.13-9
PROJECTED SUPPLY AND DEMAND COMPARISON
DURING MULTIPLE DRY-YEAR PERIOD ENDING IN 2015 BASED ON 2005 UWMP
(acre-feet/year)**

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Water Authority	50,675	52,091	53,509	54,925	56,341
Recycled	4,169	4,298	4,426	4,555	4,684
Total Supply	54,844	56,389	57,935	59,480	61,025
% of Normal Year	107%	107%	107%	107%	107%
Total Demand	54,844	56,389	57,935	59,480	61,025
% of Normal Year	107%	107%	107%	107%	107%
Difference (supply-demand)	0	0	0	0	0

SOURCE: OWD 2005 UWMP

Threshold 3: As part of its General Plan, the City has adopted a Growth Management Ordinance (Chapter 19.09) that imposes water threshold standards and requires all major development projects to prepare a WCP. These threshold standards are established to ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth.

Therefore, impacts to potable water would be significant if the proposed project would exceed City threshold standards that seek to ensure adequate supplies of quality water, appropriate for intended use, are available. The standards require the following actions:

- The applicant must request and deliver to the City service availability letters from the appropriate water district for each project at the tentative map level.
- The applicant is required to submit a Water Conservation Plan along with a SPA Plan application.

- The project plans shall ensure an adequate supply of water on a long-term basis prior to the development of each Otay Ranch SPA.

The City's Growth Management Ordinance requires a WCP that is consistent with the Chula Vista WCP Guidelines to be prepared for all projects with 50 dwelling units or greater at the time of SPA Plan preparation. The purpose of a WCP is to respond to the Growth Management policies of the City of Chula Vista and address the long-term need to conserve water in new developments.

The proposed project's SPA Plan includes a WCP, prepared by Dexter Wilson Engineering, Inc. (January 2006), to reduce the impact of increased water demand for the SPA Plan area. The SPA Plan incorporates a number of non-mandatory water conservation measures in the single-family and multi-family residential units. Conservation measures in the WCP include the use of water-efficient dishwashers, pressure-reducing valves, hot water pipe insulation, dual-flush toilets, water-efficient irrigation systems and evapotranspiration controllers. At buildout of the proposed SPA Plan, implementation of the above conservation measures would result in an estimated water savings of 101,850 gpd for the residential component of the project. The Village Three project area will save water by irrigating open space slopes and common areas with recycled water. Open space slopes adjacent to the Otay Ranch Preserve will not use recycled water for irrigation. The use of recycled water is expected to result in an estimated average water saving of 0.42 mgd for Villages Two and Three.

As discussed under Threshold 2, above, the SDCWA relies in part on the IID water transfer and that agreement is being challenged in court. As a result, the assumption that the IID water transfer will be available is questionable, and it is possible that the water from IID will not be available as anticipated. In the absence of this water supply source, a significant water supply impact would result.

Level of Significance Prior to Mitigation

The proposed SPA Plan would result in an incremental increase in water consumption and place additional demands on water storage and pumping facilities. The impact to water storage and pumping facilities would be significant if construction of facilities does not coincide with the anticipated growth associated with the SPA Plan. However, the increase in demand for water would not have a significant impact on the ability of OWD to provide service to the proposed project.

The WSAV Report indicated that the increase in water demand is consistent with the projected water demand included in the OWD 2000 UWMP and the WRMP. The same finding can also be made under the OWD 2005 UWMP. The WSAV Report relied on water supply forecasts based on the projected potable water demands supplied with imported water received from SDCWA. However, as discussed above, the SDCWA relies in part on

the IID water transfer and other agreements that are being challenged in court. As a result, the assumption that the IID water transfer and other agreements will be available is questionable due to litigation uncertainty, and it is possible that the identified water supplies may not be available as anticipated, despite the urban water management planning conducted by MWD, SDCWA, and OWD. If the litigation were to invalidate identified and available water supplies, a significant water supply impact would result.

Mitigation Measures

The proposed project would reduce impacts to potable water services by the following measures:

5.13.1-1 Prior to the approval of the first final map, a final Subarea Master Plan (SAMP) shall be required for the project. The SAMP shall include the following:

- Existing pipeline locations, size, and capacity
- The proposed points of connection and system
- The estimated water demands and/or sewer flow calculated
- Governing fire department's fire flow requirements (flow rate, duration, hydrant spacing, etc)
- Agency's Master Plan
- Agency's planning criteria (see Sections 4.1 through 4.3 of the Water Agencies' Standards)
- Water quality maintenance
- Size of system and number of lots to be served

Water facilities improvements shall be financed or installed on-site and off-site in accordance with the SAMP.

5.13.1-2 Prior to the approval of the first final map, the applicant(s) shall secure and agree with the Otay Water District to construct all potable water facilities (on-site and off-site) required to serve the project. These water facilities improvements shall be financed or installed on-site and off-site in accordance with the fees and phasing in the approved Public Facilities Finance Plans for the SPA Plan.

Level of Significance After Mitigation

Implementation of the above mitigation measures would reduce the proposed SPA Plan's impact on potable water, but not to below a level of significance. The WSAV Report relied on water supply forecasts based on the projected potable water demands supplied with imported water received from SDCWA. The SDCWA relies in part on the IID water transfer and other agreements that are being challenged in court. As a result, the assumption that the IID water transfer and other agreements will be available is questionable due to litigation uncertainty, and it is possible that the identified water supplies may not be available as anticipated, despite the urban water management planning conducted by MWD, SDCWA, and OWD. If the litigation were to invalidate identified and available water supplies, a significant water supply impact would result. Please refer to Section 5.13.1, above, Existing Plans and Policies, for a discussion of the City's regulatory measures that are in place and applicable to water supplies should litigation uncertainty result in impacts to the identified and otherwise available water supplies.

5.13.2 Recycled Water

Existing Conditions

The following discussion is based on the report titled Overview of Water Service for the Otay Ranch Company Village 2, 3, a Portion of 4, and PA18b (November 28, 2005) prepared by Dexter Engineering. A copy of the report is included in Appendix I-1 to this EIR.

The RWCWRF located north of the proposed SPA Plan project site, near the intersection of Singer Lane and State Route 94 supplies the Otay Ranch community with recycled water. This plant has a current capacity of 1.3 mgd, with expansion potential up to 2.5 mgd for nonpotable water uses including irrigation of golf courses, school playing fields, public parks, and public landscaping. To ensure the availability of recycled water for these uses, OWD will supply potable water to the recycled system when high demand exceeds the available capacity. In addition, the South Bay Water Reclamation Plant also will provide recycled water to meet future demands within OWD, which is expected to begin in 2006 with construction and operation of the transmission, storage, and pump station systems necessary to receive the South Bay Reclamation Plant recycled water. The South Bay Water Reclamation Plant, located at the intersection of Dairy Mart and Monument Roads, in the Tijuana River Valley, will have an ultimate rated capacity of 15 mgd, of which OWD will obtain capacity rights to 8 mgd of recycled water. This additional source of recycled water will allow the OWD to meet existing and future recycled water demands. The OWD has master planned a series of pump stations, reservoirs, and transmission lines to integrate this source of water into the existing recycled water system.

Two existing ponds in the OWD Recycled Use Area north of Proctor Valley Road receive the water and provide operational storage with capacity to hold high water levels of

approximately 950 feet to provide the recycled water storage and the supply for the 950 zone distribution. The ponds are connected to an existing 20-inch transmission main in Lane Avenue, which runs south to the existing main in Otay Lakes Road.

Recycled water is delivered from the two existing storage ponds to OWD and pumped to the proposed 680 zone 2.2-mg capacity recycled water reservoir to be located in EastLake Greens (between South Greensview Drive and the second San Diego aqueduct right-of-way) for operational storage. The reservoir will have a connection to a planned 680 recycled pressure zone transmission main within the aqueduct right-of-way. This main will tie into planned transmission mains in Telegraph Canyon Road and Olympic Parkway.

OWD would have the option of pumping recycled water from the 680 zone reservoir to supply the demands of the 950 zone. The 680 Zone will ultimately be supplied by the South Bay Water Reclamation Plant. A 16-inch 680 zone pipeline has been constructed in Olympic Parkway along the northern boundary of the proposed project site. In addition, a 12-inch 680 zone line has been constructed in Heritage Road with a 12-inch stub south of Olympic Parkway. And a 16-inch line has been constructed in La Media Road with a 12-inch stub south of Olympic Parkway.

Thresholds of Significance

According to Appendix G of the CEQA guidelines, the proposed project would have a significant impact on recycled water if it would:

- Threshold 1: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- Threshold 2: Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.
- Threshold 3: As part of its General Plan, the City has adopted a Growth Management Ordinance (Chapter 19.09) that imposes water threshold standards and requires all major development projects to prepare a WCP. A copy of the SPA Plan WCP is available for public review at the City of Chula Vista, Planning and Building Department, 430 F Street, Chula Vista, California, and incorporated by reference in this EIR. These threshold standards are established to ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth.

Therefore, impacts to recycled water would be significant if the proposed project would exceed City threshold standards that seek to ensure that

adequate supplies of quality water, appropriate for intended use, are available. The standards require the following actions:

- The applicant must request and deliver to the City service availability letters from the appropriate water district for each project at the tentative map level.
- The applicant is required to submit a Water Conservation Plan along with a SPA Plan application.
- The project plans shall ensure an adequate supply of water on a long-term basis prior to the development of each Otay Ranch SPA.

Impacts

Threshold 1: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

OWD has master planned a series of pump stations, reservoirs, and transmission lines to integrate recycled water from the South Bay Reclamation Plant into the existing and future recycled water system. Construction of these facilities is estimated to begin in the fall of 2006. The recycled water system will continue to be supplemented with potable water until the additional source of recycled water supply from the South Bay Water Reclamation Plant is available. Therefore, impacts to recycled water storage and distribution facilities would be significant if construction of new facilities does not coincide with the project's anticipated growth.

Threshold 2: Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

The projected recycled water demand for the proposed project is listed in Table 5.13-10. The projected demand for the proposed project is 0.42 mgd or 494 acre-feet per year. This demand projection is consistent with the projected water demand included in the OWD UWMP and WRMP. The largest potential recycled water use areas for the project include open space graded slopes and parks. Recycled water may also be used to irrigate the common areas of schools, industrial, multi-family residential, and commercial facilities. The proposed project will be served by the 680 zone recycled water system through connections to the 12-inch 680 recycled zone main in La Media Road and the 16-inch line in La Media Road. Figure 5.13-3 shows the existing and proposed facilities recommended to serve the SPA Plan project.

As specified in current OWD design criteria, all on-site pipelines will have a minimum diameter of six inches. Recycled water pipelines will be installed concurrent with the phased construction of the potable water system.

**TABLE 5.13-10
OTAY RANCH VILLAGES TWO, THREE, AND A PORTION OF FOUR
PROJECTED RECYCLED WATER DEMANDS**

Land Use	Area (acres)	Percentage to be Irrigated	Irrigated Acreage	Recycled Water Irrigation Factor (gpd/ac)	Average Recycled Water Demand (gpd)
Open Space Graded Slopes*	100	100	100	2,155	215,500
Parks	59.6	100	59.6	2,155	128,440
Commercial, CPF	28.2	10	2.8	2,155	6,030
School	10.3	20	2.1	2,155	4,530
Multi-family Residential	129.6	15	19.4	2,155	41,810
Industrial	264.4	5	13.2	2,155	28,450
High School	50	20	10.0	2,155	21,550 [†]
Fire Station	1.5	10	0.2	2,155	430 [†]
TOTAL					424,760

*Preliminary estimate.

†Demands for the high school site and fire station are provided for reference only and not included in the project total. These facilities have been developed independent of the Villages Two, Three, and a portion of Four project.



FIGURE 5.13-3 Existing and Proposed Recycled Water Facilities

OWD projects that annual average recycled water demands will increase to approximately 5,290 acre-feet/year by year 2020. Approximately 1,100 acre-feet/year would be generated by the RWCWRF, with the remainder supplied to OWD by the South Bay Water Reclamation Plant.

Since the year 2000, recycled water demand has exceeded supply capabilities of the RWCWRF, which is typically limited to approximately 1,100 acre-feet per year. The current and near-term supply shortfall will be met by adding potable water supplied by the SDCWA into the recycled water storage system (OWD 2003).

OWD has master planned a series of pump stations, reservoirs, and transmission lines to integrate recycled water from the South Bay Reclamation Plant into the existing recycled water system. Construction of these facilities is estimated to begin in the fall of 2006. The recycled water system will continue to be supplemented with potable water until the additional source of recycled water supply from the South Bay Water Reclamation Plant is available.

As seen in Table 5.13-3, the recycled water supplies are not expected to be reduced during a dry-year. MWD has indicated that they have adequate supplies to meet dry-year demands within its service area over the next 20 years, including the proposed project (OWD 2003). Therefore, impacts are not significant.

Threshold 3: As part of its General Plan, the City has adopted a Growth Management Ordinance (Chapter 19.09) that imposes water threshold standards and requires all major development projects to prepare a WCP. These threshold standards are established to ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth.

Therefore, impacts to recycled water would be significant if the proposed project would exceed City threshold standards that seek to ensure adequate supplies of quality water, appropriate for intended use, are available. The standards require the following actions:

- The applicant must request and deliver to the City service availability letters from the appropriate water district for each project at the tentative map level.*
- The applicant is required to submit a Water Conservation Plan along with a SPA Plan application.*
- The project plans shall ensure an adequate supply of water on a long-term basis prior to the development of each Otay Ranch SPA.*

As discussed above in Section 5.13.1, the WCP, prepared by Dexter Wilson Engineering, reduces the impact of increased water demand. The conservation measures in the WCP

include, but are limited to, the use of water-efficient dishwashers pressure-reducing valves, hot water pipe insulation, dual-flush toilets, and evapotranspiration controllers. At buildout of the proposed SPA Plan, implementation of the above conservation measures would result in an estimated water savings of 101,850 gpd for the residential component of the project. Village Three will further save water by irrigating open space slopes and common areas with recycled water. The use of recycled water is expected to result in an estimated average water saving of 0.42 mgd for Villages Two, Three, and a Portion of Four. Therefore, impacts are not significant.

Level of Significance Prior to Mitigation

The proposed project would result in an incremental increase in the use of recycled water and place additional demands on water storage and pumping facilities. The increase in use of recycled water has been planned for by the OWD and will not have a significant impact. However, the impact to recycled water storage and distribution facilities would be significant if construction of new facilities does not coincide with the development phasing of the proposed SPA Plan outlines in the project's PFFP.

Mitigation Measures

The proposed project would reduce impacts to recycled water services by the following measures:

- 5.13.2-1 Prior to the approval of the first final map, a final Subarea Master Plan shall be required for the project. The SAMP shall include the following:
- Existing pipeline locations, size, and capacity
 - The proposed points of connection and system
 - The estimated water demands and/or sewer flow calculated
 - Governing fire department's fire flow requirements (flow rate, duration, hydrant spacing, etc)
 - Agency's Master Plan
 - Agency's planning criteria (see Sections 4.1 through 4.3 of the Water Agencies' Standards)
 - Water quality maintenance
 - Size of system and number of lots to be served

Water facilities improvements shall be financed or installed on-site and off-site in accordance with the SAMP.

- 5.13.2-2 Recycled water facility improvements shall be financed or installed on- and off-site in accordance with the fees and phasing in the approved PFFP for the Villages Two, Three, and a portion of Four SPA Plan.

Level of Significance After Mitigation

Implementation of the mitigation measures would reduce the project's impact on recycled water to below a level of significance.

5.13.3 Sewer

Existing Conditions

The Otay Ranch GDP Program EIR concluded that implementation of the Otay Ranch GDP would result in a significant impact to sewer services because existing facilities would not accommodate the additional sewage flow, and additional wastewater treatment would be required. The following discussion is based on the Overview of Sewer Service for Otay Ranch Villages 2, 3, a Portion of 4, and PA18b (Dexter Wilson Engineering, Inc., February 2006). This report is included in Appendix I-1 to this EIR.

The City is responsible for sewer service in Otay Ranch. The City has set threshold standards for sewer services, which require all new development to be consistent with the Wastewater Master Plan. The criteria used in the sewer report prepared by Dexter Wilson Engineering were established in accordance with the City's Subdivision Manual standards. The design criteria were used to analyze the existing sewer system, as well as to design and size proposed improvements and expansions to the system to accommodate flows in the SPA Plan area.

The eastern portion of the city of Chula Vista lies within three sewer basins: Salt Creek, Telegraph Canyon, Wolf Canyon, and Poggi Canyon. There are three existing sewer interceptors that collect and convey flow from the Otay Ranch area, including the project site: the Telegraph Canyon Interceptor, located in Telegraph Canyon Road north of the project site; the Poggi Canyon Interceptor, located in Olympic Parkway west of the project site; and the Salt Creek Trunk Sewer, which begins just west of Upper Otay Reservoir and ties into the San Diego Metro Sewer line west of Interstate 5 near Main Street. Sewage generated within the project area will discharge to Poggi Canyon and Wolf Canyon/Salt Creek basins. As stated above, the City has existing facilities in the Poggi Canyon basin, but there are currently no sewer facilities within the Wolf Canyon/Salt Creek basin. Figure 5.13-4 shows the location of existing and proposed sewer facilities in relation to the SPA Plan site. A brief discussion of these facilities is provided below.

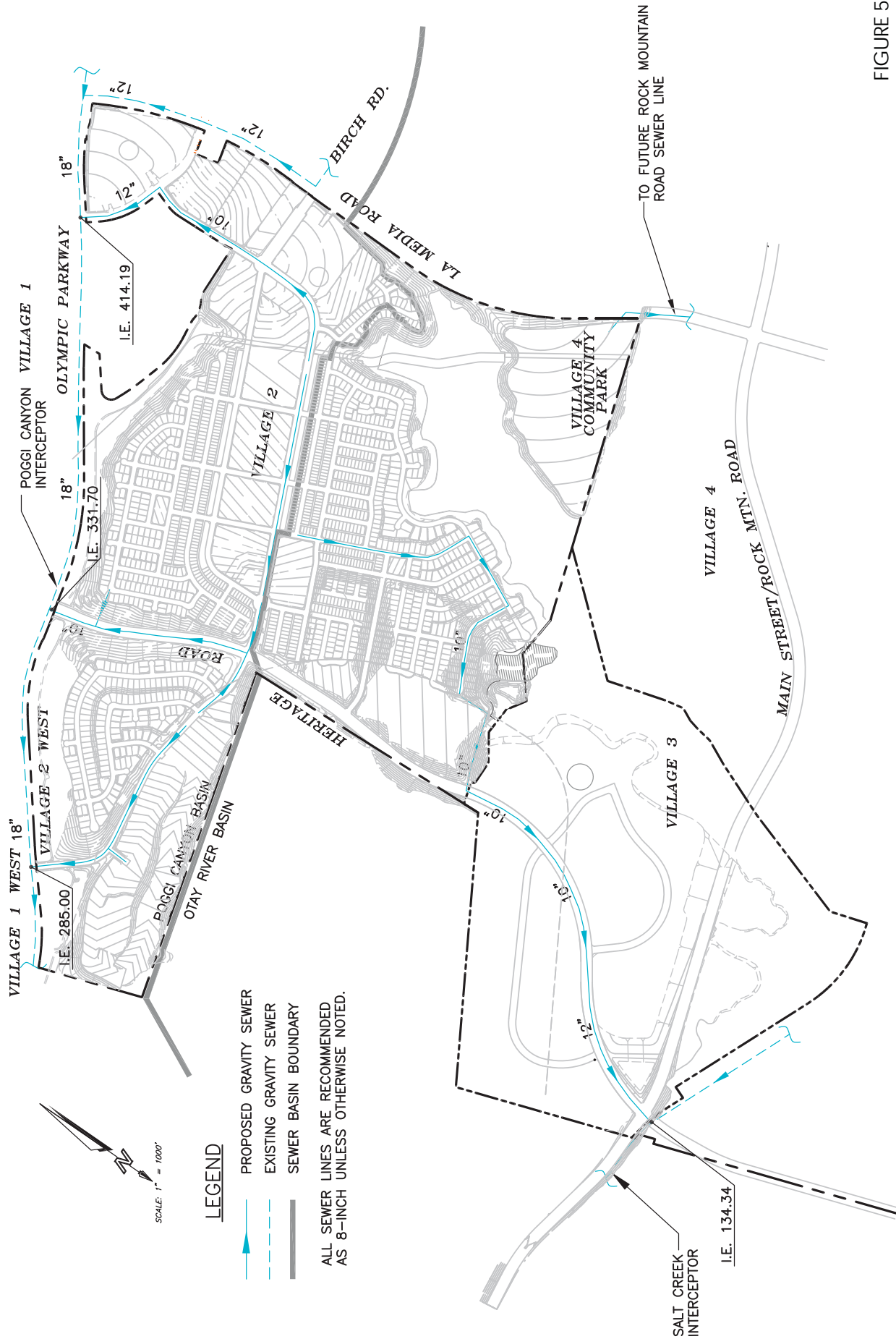


FIGURE 5.13-4 Existing and Proposed Sewer Facilities

The northern portion of the Village Two project is within the Poggi Canyon Basin. The existing Poggi Canyon Interceptor has been extended easterly in Olympic Parkway along the northern boundary of the Village Two project. This interceptor is 18 inches in diameter for the section of line that is adjacent to Village Two.

Flows from the southern portion of Village Two, Village Three, and Village Four will be conveyed south to the Wolf Canyon/Salt Creek Interceptor. The Wolf Canyon/Salt Creek Interceptor runs in an east-west direction adjacent to the southern boundary of Village Three and is a 42-inch diameter pipe at this location.

Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the proposed SPA Plan project would have a significant impact on sewer service if it would:

- Threshold 1: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Threshold 2: Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and
- Threshold 3: As part of its General Plan, the City has adopted a Growth Management Ordinance (Chapter 19.09) that imposes wastewater threshold standards that require the following:
- Sewage Flows and volumes shall not exceed City Engineering Standards as set forth in the Subdivision Manual adopted by City Council Resolution Number 11175 on February 12, 1983, as may be amended from time to time. A copy of the Subdivision Manual is available for public review at the City of Chula Vista, Planning and Building Department, 430 F Street, Chula Vista, California.
 - The City shall annually provide the San Diego Metropolitan Sewer Authority with a 12- to 18-month development forecast and request confirmation that the projection is within the City's purchases/capacity rights and an evaluation of their ability to accommodate the forecast and continuing growth, or the City Engineering Department staff shall gather the necessary data.

Impacts

Threshold 1: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

The City has established criteria to estimate sewage flows from different land uses. These calculations are based on sewage generation factors established in the City's Subdivision Manual. Single-family dwelling units are estimated to produce an average of 265 gpd and multi-family dwelling units are assumed to produce 75 percent of the sewage generated in a single-family dwelling unit, or 199 gpd. Commercial, industrial, and CPFs generate 2,500 gpd/acre. Elementary schools are assumed to produce 15 gpd/student and high schools are assumed to produce 20 gpd/student. Parks are estimated to produce 500 gpd/acre.

Table 5.13-11 shows the projected sewage generation for the SPA Plan area. To convert average daily flow to peak wet weather flows, the population based peaking factor curve (CVD-SW01) provided in the City of Chula Vista Subdivision Manual was used (see Appendix J-1 to this EIR). The average daily sewage flow from the proposed project is estimated to be 628,130 gpd within Poggi Canyon and 780,930 gpd within the Wolf Canyon/Salt Creek Basin. The peak projected flow is 1.21 mgd in the Poggi Canyon Basin (Peak Factor=1.93) and 1.47 in the Wolf Canyon/Salt Creek Basin (Peak Factor=1.88).

The City has wastewater treatment capacity rights of 19.843 million gallons per day (MGD) in the Metro system. The City is currently generating an average daily flow of 16.7 MGD. Therefore, the City has a wastewater treatment reserve capacity of 3.143 MGD in the Metro system. The proposed project would generate an average daily flow of 1.41 MGD (see Table 5.13-11). Therefore, there is sufficient reserve in the City's allocation of wastewater treatment capacity within the Metro system to serve this project.

The recommended on-site sewer lines internal to Villages Two and Three will range from 8-inch to 12-inch gravity sewers. The required sizing should be verified once pipe slopes have been better defined during the preparation of the tentative map and/or final engineering of the SPA Plan project. Figure 5.13-4 provides the recommended on-site sewer line sizing for the project.

POGGI CANYON INTERCEPTOR

The Poggi Canyon Basin Gravity Sewer Basin Plan was prepared in July 1997 to estimate ultimate projected sewage flows from within the basin and provide recommended sewer facility sizing to convey these flows. Development projections in the 1997 study were based on the Otay Ranch GDP and included 1,201 estimated dwelling units (EDUs) for Village Two within the Poggi Canyon Basin. Table 5.13-12 summarizes the projected EDUs that will

**TABLE 5.13-11
OTAY RANCH VILLAGES TWO, THREE, AND A PORTION OF FOUR
WASTEWATER FLOW PROJECTIONS**

Neighborhood	Land Use	Quantity	Generation Factor	Average Sewage Flow, gpd
Poggi Canyon Basin				
R-4	SF	160 units	265 gpd/unit	42,400
R-5	MF	130 units	199 gpd/unit	25,870
R-6	SF	63 units	265 gpd/unit	16,700
R-7	SF	44 units	265 gpd/unit	11,660
R-8	SF	51 units	265 gpd/unit	13,520
R-9	SF	101 units	265 gpd/unit	26,760
R-10	MF	90 units	199 gpd/unit	17,910
R-11	MF	144 units	199 gpd/unit	28,660
R-12	MF	295units	199 gpd/unit	58,710
R-13	MF	149 units	199 gpd/unit	29,650
R-14	MF	137 units	199 gpd/unit	27,260
R-15	SF	45 units	265 gpd/unit	11,930
R-16	MF	74 units	199 gpd/unit	14,730
R-28	MF	85 units	199 gpd/unit	16,910
R-29	MF	152 units	199 gpd/unit	30,250
R-30	MF	180 units	199 gpd/unit	35,820
MU-1	MF	10 units	199 gpd/unit	1,990
MU-2	MF	12 units	199 gpd/unit	2,390
MU-3	MF	38 units	199 gpd/unit	7,560
MU-1	Commercial	1.1 ac	2,500 gpd/ac	2,750
MU-2	Commercial	1.4 ac	2,500 gpd/ac	3,500
MU-3	Commercial	4.3 ac	2,500 gpd/ac	10,750
C-1	Commercial	11.9 ac	2,500 gpd/ac	29,750
IND-1	Industrial	51.5 ac	2,500 gpd/ac	128,750
P-1	Park	1.4 ac	500 gpd/ac	700
P-2	Park	7.1 ac	500 gpd/ac	3,550
P-3	Park	6.9 ac	500 gpd/ac	3,450
CPF-1	Comm. Purpose	1.2 ac	2,500 gpd/ac	3,000
CPF-3	Comm. Purpose	1.7 ac	2,500 gpd/ac	4,250
CPF-4	Comm. Purpose	1.5 ac	2,500 gpd/ac	3,750
CPF-5	Comm. Purpose	0.8 ac	2,500 gpd/ac	2,000
S-1	School	750 students	15 gpd/student	11,250
HS	High School	1,500 students	20 gpd/student	30,000 ¹
FS	Fire Station	1.5 ac	2,500 gpd/ac	3,750 ¹
Subtotal Poggi Canyon		1,960 units		628,130
Wolf Canyon/Salt Creek Village 2				
R-17	MF	119 units	199 gpd/unit	23,680
R-18	SF	66 units	265 gpd/unit	17,490
R-18B	SF	46 units	265 gpd/unit	12,190
R-19	SF	83 units	265 gpd/unit	22,000
R-20	SF	83 units	265 gpd/unit	22,000
R-21	SF	64 units	265 gpd/unit	19,960
R-23	SF	71 units	265 gpd/unit	18,810
R-24	SF	41 units	265 gpd/unit	10,865
R-25	SF	68 units	265 gpd/unit	18,020
R-26	MF	75 units	199 gpd/unit	14,925

**TABLE 5.13-11
OTAY RANCH VILLAGES TWO, THREE, AND A PORTION OF FOUR
WASTEWATER FLOW PROJECTIONS
(continued)**

Neighborhood	Land Use	Quantity	Generation Factor	Average Sewage Flow, gpd
R-27	MF	110 units	199 gpd/unit	21,890
IND-2	Industrial	6.7 ac	2,500 gpd/ac	16,750
IND-3	Industrial	29.7 ac	2,500 gpd/ac	74,250
P-4 ²	Park	44.2 ac	500 gpd/ac	22,100
CPF-2	Comm. Purpose	0.9 ac	2,500 gpd/ac	<u>2,250</u>
Subtotal Village 2		826 units		314,180
Village 3				
IND-1	Industrial	54.5 ac	2,500 gpd/ac	136,250
IND-2	Industrial	26.4 ac	2,500 gpd/ac	66,000
IND-3	Industrial	50.1 ac	2,500 gpd/ac	125,250
IND-4	Industrial	26.4 ac	2,500 gpd/ac	66,000
IND-5	Industrial	11.3 ac	2,500 gpd/ac	28,250
IND-6	Industrial	7.8 ac	2,500 gpd/ac	19,500
CPF-1	Community	10.2 ac	2,500 gpd/ac	25,500
Subtotal Village 3				466,750
Subtotal Wolf Canyon/Otay River				780,930
TOTAL		2,786 units		1,409,060

¹Sewer flow projections for the high school and fire station are provided for reference only and not included in the project total. These sites have been developed independent of the Village Two project.

²P-4 is within Village Four, but will be developed with the Village Two project.

convey flow to the Poggi Canyon Interceptor based on the current land use plan for Village Two.

**TABLE 5.13-12
OTAY RANCH VILLAGE TWO
POGGI CANYON BASIN EDU PROJECTION**

Land Use	EDU Factor	Quantity	EDUs
SF Residential	1.0 EDU/unit	464 units	464
MF Residential	0.75 EDU/unit	1,496 units	1,122
Commercial	9.4 EDU/unit	18.7 ac	176
Industrial	9.4 EDU/unit	51.5 ac	484
Community Purpose	9.4 EDU/unit	5.2 ac	49
Park (P1, P2, and P3)	1.9 EDU/ac	15.4 ac	29
S-1 School	265 gpd/EDU	11,250 gpd	42
High School	265 gpd/EDU	30,000 gpd	113
Fire Station	9.4 EDU/ac	1.5 ac	14
TOTAL			2,493

Table 5.13-13 summarizes the available capacity for the threshold reaches of the Poggi Canyon Interceptor. With the Reach 205 section of the 18-inch line beneath Interstate 805 recently completed, the next capacity threshold in the system is a section of existing 18-inch sewer line at Brandywine Avenue. The 265 gpd/EDU factor was used to estimate available capacity in accordance with the City of Chula Vista Subdivision Manual. Table 5.13-13 also reflects the increased capacity in the Poggi Canyon Interceptor resulting from the abandonment of the Olympic Parkway Pump Station.

**TABLE 5.13-13
POGGI CANYON INTERCEPTOR
CAPACITY THRESHOLD SUMMARY**

Reach	Available Capacity, EDUs @ 265 gpd/EDU	Total Future EDUs	Excess Capacity @ Buildout, EDUs @ 265 gpd/EDU
P270	9,207	8,870	337

SOURCE: Dexter Wilson Engineering Inc. 2006.

Table 5.13-13 summarizes the proposed development projections and available capacity data to identify whether or not sufficient capacity exists to serve future proposed development. The available capacity is 9,207 gpd/EDU at 265 gpd/EDU. As shown, the 18-inch line at Brandywine (P270) has adequate capacity (an excess of 337 EDUs) to serve ultimate projected development with the assumption that a sewage generation rate of 265 gpd/EDU is used. Therefore, no additional upgrades to the Poggi Canyon Interceptor are proposed.

WOLF CANYON/SALT CREEK INTERCEPTOR

The Salt Creek Basin Gravity Sewer Analysis was prepared on November 8, 1994, to project ultimate flows to determine the appropriate sizing of the Wolf Canyon/Salt Creek

Interceptor. Based primarily on the flow projections in the 1994 study, the Wolf Canyon/Salt Creek Interceptor has been designed and constructed. The projected EDUs from Villages Two and Three were 2,532 in the 1994 study. Table 5.13-14 provides the projected sewage flows to the Wolf Canyon/Salt Creek Interceptor based on the current land use plan for Villages Two and Three.

Table 5.13-14 shows that the current development plan for the proposed project results in an increase of 1,699 EDUs that will be served by the Wolf Canyon/Salt Creek Interceptor when compared to the November 1994 Wolf Canyon/Salt Creek Basin Study. This increase in development has more than been offset by upstream developments that were included in the November 1994 study, but are now proposed to remain as open space. Otay Ranch Villages 14, 15, and Planning Area 16 have recently been sold to the State of California and will be preserved as natural open space. The November 1994 Wolf Canyon/Salt Creek Basin Sewer Study had projected a total of 3,105 EDUs of development from Villages 14, 15, and Planning Area 16. Due to this decrease in projected development from upstream areas of the basin, there will be enough capacity in the Wolf Canyon/Salt Creek Interceptor to serve the current proposed development of Villages Two, Three, and a portion of Four.

**TABLE 5.13-14
WOLF CANYON/SALT CREEK INTERCEPTOR EDU PROJECTIONS
FROM CURRENT LAND USE PLAN**

Land Use	EDU Factor	Quantity	EDUs
Village Two			
Single-family Residential	1.0 EDU/unit	522 units	522
Multi-family Residential	0.75 EDU/unit	304 units	228
Community Purpose	9.4 EDU/ac	0.9 ac	8
Industrial	9.4 EDU/ac	36.4 ac	342
Subtotal Village Two			1,100
Village Three			
Industrial	9.4 EDU/ac	176.5 ac	1,659
Community Purpose	9.4 EDU/ac	10.2	96
Subtotal Village Three			<u>1,755</u>
Village 4 Community Park	1.9 EDU/ac	44.2	84
Total Wolf Canyon/Salt Creek Basin			2,939
Minus 1994 Study Projections			<u>(2,532)</u>
Subtotal			407
Plus Added Poggi Canyon EDU's			1,292
TOTAL NET WOLF CANYON/SALT CREEK INCREASE			1,699

SOURCE: Dexter Wilson Engineering Inc. 2006.

Threshold 2: Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

As described below, the proposed SPA Plan would require the construction of new wastewater conveyance facilities. Construction of these conveyance facilities would occur in conformance with the phasing plan in the proposed project's PFFP. Until the sewer line in

Heritage Road is constructed, development within Village Two will be limited so as not to exceed the excess capacity in the Poggi Canyon Interceptor sewer. Similarly, development of Village Three cannot proceed until the Heritage Road connection to the Salt Creek Interceptor is complete. Impacts resulting from the construction of the sewer line in Heritage Road are on-site and are considered in each of the impact sections discussed in this report.

VILLAGE TWO

The northern portion of Village Two would be served by gravity sewer lines that would connect to the Poggi Canyon Interceptor in Olympic Parkway. The southerly portion of the Village Two project would be served by the Heritage Road Sewer line. The construction of a regional sewer collection system in Rock Mountain Road and Heritage Road is essential to serve all properties within the Wolf Canyon/Salt Creek Sewer Basin, including the proposed SPA Plan project. Heritage Road sewer would be constructed as a condition of development of the project. This system was evaluated above and Figure 5.13-4 graphically shows this sewer line alignment.

VILLAGE FOUR COMMUNITY PARK

The community park within a portion of Village Four that is to be developed concurrent with Village Two will ultimately be served by constructing a gravity sewer line south to a future sewer line in Rock Mountain Road. However, since there is a possibility that the early phases of the community park would be developed prior to the availability of the gravity sewer line, an interim sewage lift station would be required to pump flow from the park site. This flow would be pumped from the park site northerly in La Media Road to an existing gravity sewer line at the intersection of Birch Road. If the temporary lift station is required, it would be designed to meet the requirements of the City of Chula Vista Subdivision Manual. The lift station would require a minimum pad area of approximately 50 feet by 40 feet and would include the following major components: package pump station; standby generator; odor control system; telemetry; force mains; and overflow storage.

Based on the information contained in Tables 5.13-13 and 5.13-14, Table 5.13-15 summarizes the available capacity in the Poggi Canyon Interceptor resulting from completion of Reach 205.

**TABLE 5.13-15
POGGI CANYON INTERCEPTOR PUMPED FLOW ANALYSIS SUMMARY
FOR THE VILLAGE FOUR COMMUNITY PARK**

Reach	Village Community Park	
	Excess ¹ Capacity EDUs	Pumped EDUs
P270	337	84

¹Based on 265 gpd/EDU.

As shown on Table 5.13-15, there is enough excess capacity in the Poggi Canyon Interceptor to serve the Village Four community park assuming a sewage generation factor of 265 gpd/EDU. The total pumped flows for the project would not exceed the excess capacity in the Poggi Canyon Interceptor.

VILLAGE THREE

Village Three will be served by constructing a gravity sewer line in Heritage Road and connecting to the Wolf Canyon/Salt Creek Interceptor. The development of Village Three cannot occur until the construction of this gravity sewer line is completed.

Threshold 3: Compliance with the City's Threshold Standards.

As discussed under Threshold 1, the projected EDUs from Villages Two, Three, and a portion of Four are based on sewage generation factors established in the City's Subdivision Manual. Development of the proposed SPA Plan will require the construction of gravity sewer line to handle increased flow. Design and construction of these facilities will comply with the city's Threshold Standards, and would be provided commensurate with development phasing, therefore, no significant impact would result.

Level of Significance Prior to Mitigation

Development of the proposed SPA Plan and Composite TM would result in an increase in sewage generation. There is sufficient capacity in the Poggi Canyon and Wolf Canyon/Salt Creek Interceptors to accommodate the proposed SPA Plan. The Poggi Canyon Interceptor would adequately serve the Village Four community park on an interim basis.

The southerly portion of Village Two and Village Three cannot be developed until completion of the Heritage Road sewer line and connection to the Wolf Canyon/Salt Creek Interceptor.

Mitigation Measures

- 5.13.3-1 Sewer facility improvements shall be financed or installed on-site and off-site in accordance with the fees and phasing in the approved Public Facilities Financing Plan.
- 5.13.3-2 Prior to the recordation of the first Final Map or grading permit that creates any parcel located within the Wolf Canyon/Salt Creek Sewer Basin, the City Engineer shall be satisfied that the connections to the gravity sewer system from the southern portion of Village Two have been designed and secured to convey flow to Heritage Road and southerly to the Salt Creek Interceptor.

- 5.13.3-3 In order to ensure the timely construction of the Heritage Road regional facility, prior to the first final map that creates any parcel located within the Wolf Canyon/Salt Creek Sewer Basin, the necessary right-of-way for constructing full street improvements within the SPA Plan boundary shall be granted to the City.

Level of Significance After Mitigation

Implementation of the above mitigation measures would reduce impacts to sewer services below a level of significance.

5.13.4 Integrated Waste Management

Existing Conditions

The Integrated Waste Management Act of 1989, found in Public Resources Code 40000, et seq., requires each city and county within the State of California to recycle or divert 50 percent (or as much as feasible) of its current waste stream from landfills by the year 2000. The term “integrated waste management” refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The act established the following waste management prioritization:

1. Source reduction;
2. Recycling;
3. Composting;
4. Energy recovery;
5. Landfilling; and
6. Household hazardous waste management.

Existing solid waste disposal facilities in the area include the Otay Landfill and several recycling facilities in proximity to the landfill. The Otay Landfill is expected to be in operation until 2028 under current waste generation rates.

Thresholds of Significance

According to Appendix G of the CEQA guidelines, impacts to integrated waste management would be significant if the project:

Threshold 1: Would be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs; or

Threshold 2: Does not comply with federal, state, and local statutes and regulations related to solid waste.

Impacts

Threshold 1: Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

The Otay Landfill currently accepts an average daily rate of disposal of 4,500 tons (telephone conversation with Rob Fifarek, Otay Landfill Engineer, 1/23/06), with a permitted maximum disposal rate of 5,830 tons per day or 35,000 tons per week. Based on permitted acceptance rates and not on the actual amount of waste received, the landfill has a permitted remaining capacity of 31,336,166 tons and an estimated closure period of 2021 (16 years from now). Based on the actual amount of waste currently disposed per day and assuming a six-day-per-week operating schedule, the landfill would have capacity for the next 21 years, or through 2027. This represents a deposition in the landfill without the project of 1,404,000 tons per year.

Using the waste generation rates provided in Table 5.13-16, the proposed project would increase the daily amount of waste deposited into the landfill by approximately 28.2 tons per day (Table 5.13-17). Increasing the actual daily waste disposal rate by 28.2 tons per day would incrementally decrease the length of time that the landfill would operate under capacity; however, the landfill would still operate within capacity through 2027. Therefore, the Otay Landfill has sufficient capacity to accommodate the increased waste disposal for the next 20 years.

**TABLE 5.13-16
SOLID WASTE GENERATION RATES**

Use	Generation Rate	Source*
Industrial/Business Park	10 lb/1000 sq ft/ day	SWANA Tech. Bull. 85-6; Recovery Sciences, 1987; and Matrix Mgmt Group, "Best Management Practices Analysis for Solid Waste
Multi-family Residential	3.6 lb/unit/day	City of LA Dept. of City Planning document "EIR Manual for Private Projects"
Single-family Residential	9.8 lb/ unit /day	EIR cites SWANA Tech. Bull. 85-6; Recovery Sciences, 1987; and Santa Clarita SRRE, 1990

*SOURCE: Cited in the Estimated Solid Waste Generation Rates for Industrial, Commercial, and Service Establishments, and Residential Developments from the California Integrated Waste Management Board (2006).

**TABLE 5.13-17
PROPOSED PROJECT ESTIMATED SOLID WASTE GENERATION**

Use	Amount	Generation Rate	Amount (tons per day)
Industrial/business park	4,032,567 sq ft*	10 lb/1,000 sf/day	20.16
Single-family units	986 units	9.8 lb/unit/day	4.80
Mixed use units	60 units	3.6 lb/unit/day	0.11
Multi-family residential units	1,740 units	3.6 lb/unit/day	3.13
TOTAL			28.20

*In the absence of specific uses this assumes 264.5 acres with maximum lot coverage of 70% with a building coverage of 50% of the lot coverage.

Furthermore, Pacific and Otay Landfill, Inc. has a long-term contract to dispose and accept Chula Vista's trash through 2028. As indicated in the approved Otay Landfill Permit Modification Agreement (approved May 17, 2005):

In the event that the Otay Landfill is not successful in achieving the expansion of the Sycamore Canyon Landfill, the Otay Landfill agrees to revisit the disposal capacity issue and negotiate terms for additional remedies which will protect the landfill capacity available to Chula Vista rate payers, in accordance with the terms of the Amended and Restated Solid Waste Disposal and Recycling Franchise Agreement [Franchise Agreement], effective July 1, 1999, to which the City and the Otay Landfill are parties.

Section 6.2.1.5 of the Franchise Collection Agreement states that:

Pacific shall dispose of Solid Waste, at its expense, at the Otay Landfill or the Sycamore Canyon Landfill, both being City authorized landfills, in accordance with all applicable law, or such other landfill mutually agreed upon by Pacific, City, Otay Landfill, Inc., and Sycamore Canyon, Inc.

In addition, the City's Recycling and Solid Waste Plan Guide requires each land use permit applicant to develop and submit a solid waste and recycling plan as a part of the permit approval process. The Plan must demonstrate "those steps the applicant will take to meet the state mandate to reduce or divert 50 percent of the waste generated by all residences and businesses" during the preconstruction, construction, and operational phase of each project and approved by the Chula Vista Planning Department.

In conclusion, the project would be served primarily by the Otay Landfill. If its capacity is reached, the City of Chula Vista is assured that the solid waste generated in the city will be accommodated. Therefore, there is sufficient permitted capacity to accommodate the

project's solid waste disposal needs and no significant impact to integrated waste management services would result.

Threshold 2: Does not comply with federal, state, and local statutes and regulations related to solid waste.

As discussed under Threshold 1, the proposed SPA Plan will comply with all federal, state, and local statutes and regulations related to solid waste and therefore, no significant impact will result.

Level of Significance Prior to Mitigation

No significant waste impacts have been identified for the proposed SPA Plan and the Composite TM.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No significant integrated waste management impacts were identified for the development of the proposed SPA Plan and the Composite TM.

5.13.5 Law Enforcement

Existing Conditions

Police protection for the Otay Ranch area is provided by the Chula Vista Police Department. The Chula Vista Police Department currently has an actual sworn staff of 252 officers, including approved over hires, and an actual civilian support staff of 101. The proposed project area is within Patrol Beat 24, which is served by at least one patrol car 24 hours a day. However, officers respond to calls citywide, and the beat strength does not include traffic units, school resource officers, roving patrol officers, patrol sergeants, and investigative division units who would service the proposed project area as needed. The Chula Vista Police Department opened a new facility located at Fourth Avenue and F Street in Chula Vista in early 2004.

The Chula Vista Police Department response times are guided by the Growth Management Oversight Commission's (GMOC) Quality of Life Threshold Standards (Ordinance No. 2448), which was completed April 3, 2000. These standards are used to determine whether there are adequate facilities, staff, and equipment to provide police protection throughout the city of Chula Vista. In response to Police Department and GMOC concerns, the City

Council amended the threshold standards for Police Emergency Response on May 28, 2002, with adoption of Ordinance 2860.

For emergency response, police units must respond to 81 percent of Priority One emergency calls within seven minutes and maintain an average response time of 5.5 minutes or less. Priority One calls include felony crimes in progress, life-threatening situations, and injury to property. For Priority Two Urgent calls, the police units must respond to 57 percent of the calls within seven minutes with an average response time to all Priority Two calls within 7.5 minutes or less. Priority Two calls include misdemeanor crimes in progress, non-life-threatening situations, possible injury to property, and emergency public services such as traffic signal failure.

The GMOC 2005 Annual Report reported that the Police Department responded to 82.1 percent of Priority One emergency calls within seven minutes. The average Priority One call response time was 4:52 minutes compared to the 5:30-minute threshold time. The Police Department responded to 48.4 percent of Priority Two urgent calls within seven minutes compared to the 57.0 percent response required by the threshold. The average Priority Two call response time was 9:50 minutes compared to the 7:30-minute threshold time. According to the GMOC, police response time is just one measure of how these services are keeping pace with growth. The City has implemented measures to improve police response time. These measures range from maintaining full staffing to technological improvements.

Thresholds of Significance

According to Appendix G of the CEQA guidelines, impacts to police protection services would be significant if the project would:

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.

Threshold 2: Additionally, according to the City's Threshold Standards Policy, the project would have a significant impact on police services if it:

- Exceeds the City's threshold standards to respond to Priority One emergency calls throughout the city (within seven minutes in 81 percent of the cases and an average response time to all Priority One calls of 5.5 minutes or less).

- Exceeds the City's threshold standards to respond to Priority Two urgent calls throughout the city (within seven minutes in 57 percent of cases and an average response time to all Priority Two calls of 7.5 minutes or less).

Impacts

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

The proposed project would result in an increased demand on public services. Development of the proposed project would require 10 additional law enforcement officers and 23 support staff at buildout, as well as 2,870 additional square feet of police facilities to house the additional officers. The new facility at Fourth and F Streets in the city would meet the law enforcement needs created by increased demand from new development in the region, including the proposed project. Adherence to police protection standards would be necessary to ensure that adequate levels of service are maintained. Impacts on law enforcement services would be considered significant.

Threshold 2: Compliance with the City's Threshold Standards policies to respond to Priority One emergency calls throughout the city within seven minutes in 81 percent of the cases and maintain an average response time to all Priority One calls of 5.5 minutes or less and respond to Priority Two urgent calls, throughout the city within seven minutes in 57 percent of cases, and maintain an average response time to all Priority Two calls of 7.5 minutes or less.

The Police Department is currently meeting the threshold standards for Priority One calls, but not meeting the threshold standards for Priority Two calls. Development of the proposed project would result in an incremental increase in calls for police service. Given the location of the project, officers would be required to travel additional distances to respond to calls for service. Increased travel time lengthens response time.

Level of Significance Prior to Mitigation

Development of the proposed SPA Plan and the Composite TM would result in a significant impact to law enforcement because of the predicted increase in calls for service and the additional travel time required to respond to these calls.

Mitigation Measures

Impacts to law enforcement services would be reduced by the following measures:

- 5.13.5-1 Prior to the approval of each building permit, the applicant(s) shall pay Public Facilities Development Impact Fees (PFDIF). The proposed Public Facilities Financing Plan describes public facilities fees for police services based on equivalent dwelling units by development phase. The applicant(s) shall pay the public facilities fees at the rate in effect at the time building permits are issued.
- 5.13.5-2 The City of Chula Vista shall continue to monitor the Chula Vista Police Department responses to emergency calls and report the results to the Growth Management Oversight Committee on an annual basis.

Level of Significance After Mitigation

Project-related impacts to police protection would be reduced to below a level of significance with implementation of the above mitigation measures.

5.13.6 Fire Protection and Emergency Medical Services

Existing Conditions

The project area is within the service boundaries of the Chula Vista Fire Department. The Fire Department follows the GMOC Quality of Life Threshold Standards for fire protection established by the City. Fire stations are positioned throughout the city to satisfy the service levels established by these threshold standards. The threshold standards require properly equipped and staffed fire and medical units to respond to calls citywide within seven minutes for 80 percent of the cases.

The Fire Station Master Plan (City of Chula Vista 1997) evaluates the planning area's fire coverage needs and recommends a nine-station network at General Plan buildout to maintain compliance with the threshold standard. Currently, the city is served by eight fire stations within the city limits. The Chula Vista Fire Department employs 140 people (firefighters and administrative staff) and during a typical 24-hour shift there are approximately 32 line firefighters and two Battalion Chiefs on constant duty spread among the City's eight fire stations. Fire Station No. 7, located at 1640 Santa Venetia directly adjacent to the SPA Plan project site in the northwest corner of Village Two, serves the proposed project area.

According to the GMOC 2005 report, emergency response times were not met during the July 2004 to June 2005 period. The Fire Department responded to 72.9 percent of emergency calls within seven minutes, compared with the 80 percent requirement in the

threshold standard that had been based on an estimated 1.3-minute dispatch and turnout and 5.7-minute travel time. Thus, the Fire Department currently fails to meet the threshold standards established for response time.

Emergency medical services to the proposed project area are currently provided by American Medical Response, which provides contract emergency medical services for the City. There are 5.5 American Medical Response units that provide paramedics with emergency medical training to the city of Chula Vista exclusively.

Thresholds of Significance

According to Appendix G of the CEQA guidelines, impacts to fire protection and emergency services would be significant if the project would:

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency services.

Threshold 2: Additionally, the City's Threshold Standards Policy states that the proposed project would have a significant impact on fire protection services if it would:

- Reduce the ability to respond to calls throughout the City within the City's threshold standard to respond to calls within seven minutes in 80 percent of the cases.

Impacts

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the fire protection and emergency services.

Project implementation would increase the demand for fire services because land use is changing from vacant land to commercial, residential, school, park, and CPF uses. Fire Station No. 7 in Village Two is now operational and would achieve acceptable response times for the project area. Therefore, the Fire Department would be able to respond to calls from the project area within seven minutes in 80 percent of the cases from the existing facilities.

As required by California Fire Code 2001 ed Article 86 – Fire Protection Plan Urban-Wildland Interface Area, a Fire Protection Plan (FPP) has been prepared and is included in the proposed SPA Plan to reduce potential fire impacts. The FPP includes a Brush Management Plan. Ultimately, fuel modification requirements will be decided by the Chula Vista Fire Department upon review of Brush Management Plan. This plan includes all slopes within the SPA Plan area. The applicant would be required to comply with all provisions of the FPP.

Threshold 2: Compliance with the City's Threshold Standards policy to respond to calls throughout the City within the within seven minutes in 80 percent of the cases.

The Chula Vista Fire Department currently exceeds the threshold standards established for response time. Increased response time is attributable, in part, to increased travel time, which results from responding to freeway incidents; the lower density, hilly terrain; and the more circuitous non-grid nature of many streets in new residential developments in eastern Chula Vista. According to the Fire Station Master Plan, a nine-station network at General Plan buildout is needed to maintain compliance with the threshold standard. A review of the Fire Station Master Plan is currently underway and changes to the plan are anticipated.

Level of Significance Prior to Mitigation

The Chula Vista Fire Department does not currently meet the threshold standard for response time for the City, including the Otay Ranch community. However, as population growth in the service area warrants, fire stations would be constructed within Village Nine of the Otay Valley parcel and within Village Thirteen of the Proctor Valley parcel. These stations would help ensure adequate service within the requirements of the GMOC threshold standards. Impacts to fire and emergency medical services would be significant if construction of these facilities does not coincide with the project's anticipated population growth and increased demand for services.

Mitigation Measures

Impacts to fire protection and emergency medical services would be reduced by the following measures:

- 5.13.6-1 Prior to the approval of each building permit, the applicant(s) shall pay Public Facilities Development Impact Fee (PFDIF) at the rate in effect at the time of building permit issuance.
- 5.13.6-2 The City of Chula Vista shall continue to monitor Chula Vista Fire Department responses to emergency fire and medical calls and report the results to the Growth Management Oversight Committee on an annual basis.

Level of Significance After Mitigation

Implementation of the above mitigation measures would reduce the impacts to fire and emergency medical services to below a level of significance.

5.13.7 Schools

Existing Conditions

The Otay Ranch GDP Program EIR concluded that implementation of the Otay Ranch GDP would result in a significant impact because the Otay Ranch student population would generate the need for additional school facilities and services.

Elementary School

The Chula Vista Elementary School District serves the proposed project area for grades kindergarten through sixth grade (K-6) students. There are 40 elementary schools in the district. In addition, the District is proposing to construct an additional four elementary schools. The District has implemented a class size capacity of a maximum of 20 children for each kindergarten through third grade classroom and a maximum of 31 children for each fourth through sixth grade classroom.

Secondary School

The Sweetwater Union High School District serves the area middle school (grades 7-8) students and high school (grades 9-12) students. The District operates senior high schools, junior/middle high schools, adult education schools, and continuing schools.

Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on educational facilities if it would:

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for educational facilities services.

Threshold 2: According to the Otay Ranch GDP, impacts would be significant if the proposed SPA Plan project locates schools:

- In areas where disturbing factors such as traffic hazards, airports, or other incompatible land uses are present;
- In areas where they are not integrated into the system of alternative transportation corridors, such as bike lanes, riding and hiking trails, and mass transit;
- Where private elementary and secondary schools are not spaced far enough from public schools and each other to prevent an overconcentration of school impacts;
- Without at least 10 usable acres for an elementary school;
- Without a central location to residential development;
- Adjacent to a street or road which cannot safely accommodate bike, foot, and vehicular traffic;
- In areas not adjacent to parks, thereby discouraging joint field and recreation facility uses;
- At an unsafe distance (as required by law) from contaminants or toxins in the soil or groundwater from landfills, fuel tanks, agricultural areas, power lines, utility easements, and so on; or
- Inside of floodplains; on unstable soils; or near fault lines.

Impacts

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for educational facilities services.

The estimate of the number of students to be generated by the proposed SPA Plan project upon buildout was based on the current student generation factors used by each of the school districts. The proposed project is expected to generate approximately 1,515 students between elementary, middle school, and high school grades (Table 5.13-18).

**TABLE 5.13-18
STUDENT GENERATION RATES FOR THE PROPOSED PROJECT**

Grade	Generation Rate	Dwelling Units		Total Students Generated
		SF	MF	
K-6	SF=0.3485 MF=0.3164	344	570	914
7-8	SF=0.11 MF=.063	109	114	223
9-12	SF=0.21 MF=.095	207	171	378
Total Students Generated				1,515

SOURCE: Chula Vista Elementary School District; Sweetwater Union High School District.

SF=Single-family, MF=Multi-family

According to the adopted Otay Ranch GDP School Facility Implementation Plan, schools are planned to be constructed at the time that 50 percent of the projected students reside in the community. The Chula Vista Elementary School District and Sweetwater Union High School District can require a school be constructed prior to this requirement if the districts exceed their capacity. The Otay Ranch GDP designates an elementary school site (10.3 acres net) in the Village Core of the Village Two SPA Plan area, adjacent to the proposed park site. The central location of the school would give students living in the project area the option of walking to school. The middle school students would be served by existing facilities in Rancho del Rey, approximately two miles north of the SPA Plan area, and a middle school in EastLake Woods, until a 7-12 grade school is constructed in Otay Ranch Village Eleven.

The new Otay Ranch High School has been built in the northwest corner of Village Two. The capacity for Otay Ranch High School is 2,400 students, with a projected enrollment of 2,234 students for the 2005-2006 school year. Otay Ranch High School is approximately 166 students below capacity. However, another high school site is under construction in Village Seven, and is scheduled to open in 2006. It is anticipated that the planned high schools within Otay Ranch would be able to accommodate the approximate 378 high school students generated by the proposed SPA Plan project.

Proposed development and the projected increase in the number of elementary, middle school, and high school students would have a significant impact on the existing schools since they are already near capacity.

NEW SCHOOL SITING

The SPA Plan proposes a 10.3-acre elementary school site within Village Two. Potential school sites must be approved by the California Department of Education (CDE) following extensive environmental review. The CDE has prepared a School Site Selection and Approval Guide to help school districts (1) select school sites that provide both a safe and a

supportive environment for the instructional program and the learning process; and (2) gain state approval for the selected sites. Selecting the most appropriate site for a school is an important consideration for a school district and the school community. The location, size, and shape of a school site can materially affect the educational program and opportunities for students. Safety is the first consideration in the selection of school sites. Certain health and safety requirements are governed by state regulations and the policies of the Department. In selecting a school site, the selection team should consider the following factors: (1) proximity to airports; (2) proximity to high-voltage power transmission lines; (3) presence of toxic and hazardous substances; (4) hazardous air emissions and facilities within a quarter mile; (5) other health hazards; (6) proximity to railroads; (7) proximity to high-pressure natural gas lines, gasoline lines, pressurized sewer lines, or high-pressure water pipelines; (8) proximity to propane tanks; (9) noise; (10) proximity to major roadways; (11) results of geological studies and soils analyses; (12) condition of traffic and school bus safety; (13) safe routes to school; and (14) safety issues for joint-use projects. The school district will take all of these factors into consideration prior to selecting an elementary school site.

Threshold 2: Compliance with the Otay Ranch GDP

As discussed under Threshold 1, the proposed SPA Plan will comply with the regulations included in the Otay Ranch GDP. The Otay Ranch GDP designates 10.3 acres for an elementary school site within Village Two SPA Plan area, adjacent to the proposed park site. However, the projected increase in population will place additional demands on school, resulting a significant impact because they are already at or near capacity.

Implementation of the proposed project would require the payment of school fees. Conformance to statutory requirements for the payment of school fees ensures that project impacts to school services remain below a level of significance. Since October 1, 1998, major changes in state law have been enacted which significantly alter the role of cities and local agencies in imposing mitigation measures for projects. Senate Bill 50 (Greene 1998), substantially revised developer fee and mitigation procedures for school facility purposes as set forth in the Government Code. The fees set forth in Government Code §65996 constitute the exclusive means of both “considering” and “mitigating” school facilities impacts of projects [Government Code §65996(a)]. The provisions of Senate Bill 50 are “deemed to provide full and complete school facilities mitigation” [Government Code §65996(b)].

Level of Significance Prior to Mitigation

Project implementation would result in a significant impact to schools unless construction of facilities coincide with student generation and associated service demands.

Mitigation Measures

Provision of school facilities is the responsibility of the school district when additional demand warrants. Government Code 65995(b) provides that the statutory fees are the exclusive means of considering as well as mitigating for school impacts. It does not just limit the mitigation that may be required, but also limits the scope of review and the findings to be adopted for school impacts. Once the statutory fee is imposed, the impact would be mitigated because of the provision that statutory fees constitute full and complete mitigation. Therefore, implementation of the following mitigation measures would reduce the impact to schools to below a level of significance for the proposed SPA Plan and the Composite TM:

- 5.13.7-1 Prior to the issuance of building permits, the applicant(s) shall pay all required school mitigation fees or enter into an agreement to help finance the needed facilities and services for the Chula Vista Elementary School District to the satisfaction of the School District.
- 5.13.7-2 Prior to the issuance of building permits, the applicant(s) shall pay all required school mitigation fees or enter into an agreement to help finance the needed facilities and services for the Sweetwater Union High School District to the satisfaction of the School District.

Level of Significance After Mitigation

With implementation of the above mitigation, project impacts to educational facilities and services would be less than significant for the proposed SPA Plan.

5.13.8 Library ServiceExisting Conditions

The Otay Ranch GDP Program EIR concluded that implementation of the Otay Ranch GDP would result in a significant impact to library services because population growth in the Otay Ranch population would generate the need for additional library facilities. Mitigation in the Otay Ranch GDP includes adherence to the Library Master Plan, which requires construction of a 36,750-square-foot main library in the Eastern Urban Center or a series of village libraries.

The City of Chula Vista currently provides library and media services for the Otay Ranch area, by means of 102,000 square feet of library space within three library facilities. These include the South Chula Vista Library (166,000 volumes), the Civic Center/Main Library (236,000 volumes), and the EastLake Library (30,000 volumes), located on the EastLake High School campus. The Main Library, located at 365 F Street, is a two-story, 55,000-square-foot building with circulation of over one million books per year. The main library

also has a 152-seat auditorium and two conference rooms and serves as a multi-use facility with limited exhibition space. The two branch libraries, Castle Park and Woodlawn Park, have been closed.

The Library Master Plan calls for the construction of a 30,000-square-foot full-service, regional library in Rancho del Rey by summer 2007. This library would be constructed on City-owned property located at East H Street and Paseo Ranchero.

Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on library services if it would:

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services.

Threshold 2: Additionally, the City's Threshold Standards Policy states that the proposed project would have a significant impact on library services if it would fail to meet the City's threshold standard of 500 gross square feet of library space, adequately equipped and staffed, per 1,000 population.

Impacts

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for library services.

The City currently provides 102,000 square feet of library space. Based on 2004 population estimates of 217,000 the total library square feet required for the City equals 108,500. This represents a current shortfall of approximately 6,500 square feet (108,500 – 102,000). Implementation of the proposed project would result in increased demand on existing library services, including a need for approximately 4,250 square feet of library facilities based on the expected project population of people of 8,458. Impacts to library services are, therefore, considered significant.

Per the Library Facilities Master Plan, there are two additional branch libraries planned for development prior to 2020 to serve eastern Chula Vista at Rancho del Rey and within the

Eastern Urban Center. The Rancho del Rey General Development Plan and SPA I Plan call for the construction of the Rancho Del Rey Library by 2007. The library, designed to be 30,000 GSF, will be located at the northwest corner of East H Street and Paseo Ranchero Street. The Otay Ranch GDP plans for the construction of an approximately 36,750-square-foot library facility in the Eastern Urban Center or one or more village libraries. However, the proposed library in the Eastern Urban Center is not expected to be completed prior to occupancy of the proposed SPA Plan project. Until new library facilities are constructed within Otay Ranch, a potentially significant impact to library services would result.

Threshold 2: Compliance with the City's Threshold Standards Policy

As discussed under Threshold 1, there is currently a shortfall of approximately 6,500 square feet of library space in the city. The projected increase in population associated with the proposed SPA Plan would result additional demands on library services. Potentially significant impacts to library services would result if construction of new library facilities does not coincide with need.

Level of Significance Prior to Mitigation

Implementation of the proposed SPA Plan project and Composite TM would generate a greater population and would, therefore, require additional library facilities. An estimated population increase of 8,458 people corresponds to an increased library demand of 4,250 square feet. A potentially significant impact would result from the development of the proposed SPA Plan and the Composite TM if construction of new library facilities and provision of additional documents does not coincide with project implementation and associated population growth.

Mitigation Measures

Impacts to library services would be reduced by the following measures:

- 5.13.8-1 Prior to approval of each building permit, the applicant(s) shall pay Public Facilities Development Impact Fees. Prior to the issuance of building permits, Applicants shall pay required Public Facility Development Impact fees at the rate in effect at the time of permit issuance.

Level of Significance After Mitigation

Implementation of the above mitigation would reduce project impacts to library facilities and services to below a level of significance.

5.13.9 Parks and Recreation

Existing Conditions

The Otay Ranch GDP Program EIR concluded that implementation of the Otay Ranch GDP would result in a significant impact on parks and recreation services because of the additional demand for regional and local parkland. As required in the GDP, a conceptual master plan for the neighborhood park and the community park within the proposed SPA Plan area will be prepared.

The City's General Plan and the Eastern Territories Area Plan include a total of six community parks connected by an open space and trail system that extends throughout the Eastern Territories. From north to south these parks include San Miguel, Monteville, Chula Vista Community Park, Village Four Community Park, Eastern Urban Center, and Salt Creek South. In addition, recreational activities are being considered within the Otay River Valley Regional Park. The other regional park that would serve the expected population of the SPA Plan area is Otay Lakes County Park, located at the southern end of Lower Otay Reservoir.

New development in the city is required to provide public parkland, improved to City standards and dedicated to the city. Parkland dedication requirements are specified in Section 17.10.040 of the Chula Vista Municipal Code. The Parkland Dedication Ordinance requires three acres of neighborhood and community park per 1,000 residents. Therefore, the proposed SPA Plan with a population of 8,458 is required to provide 25.4 acres of parkland. In addition, the Otay Ranch GDP requires the provision of regional parks and open space at a ratio of 15 acres to every 1,000 residents. Therefore, the proposed SPA Plan is required to provide 126.9 acres of parkland and open space to meet the Otay Ranch GDP requirement.

Thresholds of Significance

According to Appendix G of the CEQA guidelines, the proposed project would have a significant impact on park and recreational facilities if it:

- Threshold 1: Requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;
- Threshold 2: Increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;
- Threshold 3: The City's Threshold Standards Policy states that the proposed project would have a significant impact on parks and recreation services if it fails to

meet the City's threshold standard of dedicating three acres of neighborhood and community parkland per 1,000 residents.

Impacts

Threshold 1: Requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed SPA Plan area is required to provide 25.4 acres of community/neighborhood parkland. The proposed SPA Plan meets these requirements by providing a centrally located 7.1-acre Neighborhood Park, a 6.9-acre Neighborhood Park in the eastern area of the village, a 1.4-acre Town Square in the Village Core, and 44.2 (net) acres of Community Park in a portion of Village Four for a total of 59.6 acres.

The 44.2-acre community park would be located in the northern portion of Village Four. Amenities in the park include restroom/maintenance buildings, lighted ball fields, lighted soccer fields/multi-purpose turf play areas, lighted sports courts (basketball and/or tennis with lighting), play area with play equipment, picnic facilities (shelters with BBQs and picnic tables), lighted skate (skateboard and/or roller skate) facility, aquatics facility, recreation center/gymnasium facilities, walkways (with security lighting), pathways, lighted parking lots, and other park support fixtures and furnishing. All amenities located in the park will be consistent with the Chula Vista Parks and Recreation Master Plan. Normal operating hours for the park in Village Four would be daily from 6:30 A.M. to 10:30 P.M. On-site parking lots would be provided to accommodate park users and visitors. Vehicular access would occur from La Media.

The Otay Ranch GDP requires the provision of regional park and open space at a ratio of 15 acres to every 1,000 residents. Therefore, based on an estimated population of 8,458 residents, approximately 126.87 acres of regional park and open space are required. The proposed site utilization plan shows 164.5 acres within Village Two and 39.0 acres within Village Three (a total of 203.5 acres) to be dedicated as open space. Proposed open space within the SPA Plan area would be in the form of manufactured slopes and other interior open spaces. The SPA Plan area is designed to provide landscaped buffer areas and to protect slopes and scenic corridors.

To further comply with the guidelines of the Otay Ranch GDP, the proposed SPA Plan includes creation of a trail system. The trails within the SPA Plan area consist of regional and village trails, village greenway trails, pathways adjacent to streets, and village streets designed to promote pedestrian, bicycle, and electric vehicle travel. Figure 3-8 shows the trails within the SPA Plan area. The Chula Vista Regional Trails are located on the north side of Olympic Parkway, west side of La Media, and the east side of Heritage Road. The Village Greenway would be connected to a regional trail system adjacent to La Media which would ultimately connect into the Chula Vista Greenbelt. A Village Pathway is proposed to

extend west from the north side of Santa Victoria (Street D) within the northeast area of Village Two through the commercial area, connecting to the regional trail on the east side of Heritage Road.

Threshold 2: Increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

The proposed SPA Plan would not result in the physical deterioration of recreation facilities as a result of increased use of existing neighborhood and regional parks. As discussed under Threshold 1, the SPA plan includes a total of 59.6 acres of parkland and associated amenities which would avoid significant impacts under Threshold 2.

Threshold 3: Compliance with the City's Threshold Standards Policy of dedicating three acres of neighborhood and community parkland per 1,000 residents.

The projected increase in population associated with the proposed SPA Plan results in the need for 25.4 acres of parkland. As discussed under Threshold 1, the proposed SPA Plan meets these requirements by providing a total of 59.6 acres of community/neighborhood parkland.

Level of Significance Prior to Mitigation

Implementation of the proposed SPA Plan and the Composite TM would generate increased demand for parks and recreation facilities. A potentially significant impact could result if dedication of parkland and construction of new facilities does not coincide with project implementation and project population growth.

Mitigation Measures

Impacts to parks and recreation facilities would be reduced by the following measures:

- 5.13.9-1 Prior to the approval of the first final map, the applicant(s) shall dedicate neighborhood and community parkland. Prior to approval of the final map, or for projects not requiring a final map, prior to building permit, the applicant(s) shall pay park development fees; and prior to building permit the applicant(s) shall pay recreation development impact fees in accordance with the fees and phasing approved in the Public Facilities Financing Plan for the SPA Plan.

Level of Significance After Mitigation

Implementation of the above mitigation would reduce the impacts to parks and recreation facilities from development of the proposed SPA Plan to below a level of significance.

5.14 Hazards/Risk of Upset

Hazards and risk of upset were evaluated for the entire Otay Ranch as part of the Otay Ranch GDP Program EIR. Significant impacts associated with hazard issues were identified in the Otay Ranch GDP Program EIR due to hazardous waste contamination of soil or groundwater, explosion of previously unexploded ordnance, or increased risk of fire or explosion. Mitigation was identified that would reduce impacts to below a level of significance. The analysis and discussion of hazards and risk of upset from the Otay Ranch GDP Program EIR are incorporated by reference.

Phase I and Phase II Environmental Site Assessments were prepared for the proposed project. A Phase I assessment for Village Two East was prepared by Geocon on June 30, 2004 (Appendix K-1). Phases I and II assessments for Village Two were prepared by Geocon on November 4, 2002 (Appendix K-2). A Revised Report of Additional Assessment and Remedial Excavation for Village Two Former Ranch Operations Center was prepared by Geocon on August 21, 2005, and revised October 5, 2005 (Appendix K-3). A Phase I assessment for Village Three was prepared by Geocon on December 11, 2003 (Appendix K-4). A Phase I assessment for the Community Park site in Village Four was prepared by Geocon on May 17, 2004 (Appendix K-5). Phases I and II assessments for the parcels of land owned by the Otay Land Company within Village Three and Planning Area 18b were prepared by URS on December 4, 2000 and August 30, 2001, respectively (Appendixes K-6 and K-7). Subsequent to the Phase I and II assessments of Village Three and Planning Area 18b, URS prepared an Phase I assessment of the 19 acres in the southern portion of Village Three on September 27, 2004 (Appendix K-8).

5.14.1 Existing Conditions

Historically, the project site was used for dry farming, as well as cattle and sheep grazing. The initial crop production was restricted to hay and grains due to limited water availability. With increased availability of water, cultivation of tomatoes and truck farming were introduced. Pesticides were used on irrigated portions of the Otay Valley parcel after 1950. A hazardous waste site assessment was conducted as part of Otay Ranch GDP Program EIR. The assessment concluded that random soil samples in areas associated with former irrigated farming showed low levels of residual pesticides [in] concentrations that do not exceed hazardous waste standards.

The Otay Ranch GDP Program EIR identified surrounding land uses that could potentially create risk of upset concerns for the Otay Valley parcel. The potential sources are the Otay Landfill, Brown Field, and Rock Mountain Quarry. The Otay Landfill was the former site of a hazardous waste reprocessing operation and still provides solid wastes disposal services. Brown Field historically maintained numerous storage tanks and a bombing range. The Rock Mountain Quarry operation represents a potential source of contamination from waste oil, fuel spillage, residual blasting chemical, and air emissions.

Regulations and Legislation

Numerous laws and regulations apply to the storage, use, and release of hazardous materials. These include:

- **1972 Federal Water Pollution Control Act (also referenced as the Clean Water Act [CWA]).** This Act established a federal framework for the regulation of water quality.
- **Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, also known as “Superfund,” and the Superfund Amendments and Reauthorization Act (SARA) of 1986 (amended CERCLA, SARA Title III).** CERCLA, SARA Title III provide a federal framework for setting priorities for cleanup of hazardous substance releases to air, water, and land. This framework provides for the regulation of the cleanup process, cost recovery, response planning, and communication standards.
- **Federal Resource Conservation and Recovery Act (RCRA) of 1976.** This Act established the authority of the United States Environmental Protection Agency (U.S. EPA) to develop regulations to track and control hazardous substances from their production, through their use, to their disposal.
- **Title 40 Code of Federal Regulations (CFR), Part 257.** This regulation establishes criteria for the classification of solid waste disposal facilities and practices (Sections 257.1 to 257.30). The U.S. EPA has the authority under RCRA to authorize states to implement RCRA, and California is a RCRA authorized state.
- **Title 40 California Code of Regulations (CCR), Part 290.** This regulation establishes technical standards and corrective action requirements for owners and operators of Underground Storage Tanks (USTs) under RCRA.
- **Porter-Cologne Water Quality Act** (California Water Code, Section 13000 et seq.). This Act established the authority of the State Water Resources Control Board (SWRCB), and provided the RWQCB with the primary responsibility of the control of water quality in the state of California.
- **California Health and Safety Code.** This Law establishes legal requirements for the control and management of hazardous wastes, aboveground storage tanks (ASTs), and USTs.
- **CCR Title 22, Division 4.5.** This regulation provides state requirements for the classification, management, and cleanup of hazardous waste sites.

- **CCR Title 27, Division 3, Chapter 15.** This regulation establishes minimum requirements for proper waste management treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment facilities.
- **CCR Title 23, Division 3, Chapter 16.** This regulation establishes requirements regarding the management of USTs for the protection of waters of the state from discharges of hazardous substances. Furthermore, all owners and operators of underground storage tanks containing hazardous substances as defined in Section 25316 of the California Health and Safety Code are required to obtain a permit from the San Diego County DEH, Hazardous Materials Management Unit (HMMU). Secondary containment and leak detection and monitoring system requirements must be met before permit issuance.
- **Water Quality Control Plan (“Basin Plan”).** The Basin Plan for the San Diego region establishes policies and requirements for the protection of groundwater and surface water quality in the region. The Basin Plan also summarizes drinking water standards as specified in the California Department of Health Services, the California Inland Surface Waters Plan (SWRCB 1991), and Title 40 CFR Part 131, which establishes federal water quality standards under the CWA.

Table 5.14-1 below provides a matrix of regulatory agency responsibility.

**TABLE 5.14-1
MATRIX OF REGULATORY AGENCY RESPONSIBILITY**

Law	Purpose	Federal	State	County	City
CAA	Restore Air Quality	U.S. EPA	Air Resources Board (ARB)	Air Pollution Control District (APCD)	--
CWA	Restore Water Quality/Waste Discharge Requirements	U.S. EPA	Water Resources Control Board (WRCB)	Regional Water Quality Control Board (RWQCB)	--
RCRA	Hazardous Waste Regulation	U.S. EPA	Department of Toxic Substances Control (DTSC)	Department of Environmental Health (DEH)	Fire Department
CERCLA	Clean up of Hazardous Waste Sites	U.S. EPA	DTSC	--	
SARA III	Community Right-to-Know	U.S. EPA	Office of Emergency Services (OES)	Regional OES	

NOTES:
 CAA = Clean Air Act
 CWA = Clean Water Act, including the State Water Code (e.g., Porter-Cologne Act)
 RCRA = Resource Conservation and Recovery Act
 CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act “Superfund”
 SARA III = Superfund Amendments and Reauthorization Act, Title III
 Portions of the State Health & Safety Code govern various actions of the ARB, WRCB, and DTSC.

Village Two

The Village Two property comprises approximately 818.9 acres. Historical uses of the property have included agricultural crop production, soil amendment mixing, and cattle ranching. The majority of the property is vacant and undeveloped. The former Otay Ranch Operations Center was located in the eastern portion of Village Two. The Otay Landfill is located adjacent to the Village Two site to the west. Groundwater monitoring wells and methane gas monitoring probes were observed along the property lines of the landfill.

Environmental investigations were conducted in portions of the Village Two property in the early and late 1990s by Woodward Clyde Consultants (WCC). Elevated levels of organochlorine pesticides (OCPs) and petroleum hydrocarbon products were found at the property during the investigations.

The Phase I Environmental Site Assessment (ESA) was performed in 2002. This report detected several demolished structures, foundations, concrete slabs, indicators of utility systems, and stockpiles of building material at the former operations center. Hydrocarbon staining was observed in the interior portions and along the exterior perimeters of two structures in the northern portion of the former ranch operations center. The structures may have been formerly used for drum storage, battery storage, and a lubrication rack. The stained soil was observed predominantly on the western sides of the structures in areas 12x8 feet and 6x4 feet in size. Odors indicative of fertilizer and pesticides were detected near a concrete slab formerly used as a pesticide storage shed. Open containers of unidentified liquids were observed on the ground adjacent to the slab. Several aboveground storage tanks were observed at the former operations center and on the eastern adjacent property. Metal pipes were observed protruding from the ground throughout the former ranch operations center. A localized area of approximately twenty 5-gallon buckets and three 55-gallon drums with hydrocarbon staining adjacent to the containers was observed along the eastern property line of the site. Trash and debris was observed throughout the former operations center. Due to the historical agricultural use of the Village Two site and the elevated concentrations of pesticides in on-site soils reported in the WCC studies, the Phase I ESA concluded that additional studies of the Village Two site were required. Therefore, a Phase II ESA was performed on the Village Two site. A report titled Phase I/II Environmental Site Assessment of Village Two was prepared by Geocon in November 2002.

The Phase I/II ESA of Village Two consisted of limited soil sampling and analysis at the site. Sampling protocol was followed for sample collection, retention, and documentation. A total of 40 widely spaced, shallow soil samples were collected with a hand auger from the site. Sample locations were based on current site conditions, the location of former structures, former areas of agricultural crop production, and proximity to drainages. The analysis indicated that elevated levels of OCPs and concentrations of toxaphene were present in the soils at the Village Two site, particularly in tilled areas and adjacent to structures at the

former Otay Ranch Operations Center. In addition, the Phase I/II report indicated that the UST and product line referenced in the 1989 and 1997 WCC reports is reportedly present beneath the site and has reportedly impacted underlying soils from an unauthorized release of petroleum hydrocarbon products. During the reconnaissance for the Phase I/II ESA, Geocon observed hydrocarbon soil staining in portions of the two structures in the northern portion of the former operations center, which were observed during the Phase I ESA.

The Phase I/II ESA of Village Two confirmed that elevated levels of OCPs, particularly toxaphene, were present in the soils at the former ranch operations center and concluded that additional soil sampling and analysis in the area of the former ranch operations center was required in order to further delineate impacted soils.

In June 2004, Geocon prepared a Phase I ESA of Village Two East to assess the impacted soils at the former ranch operations center. The Phase I ESA of Village Two East detected a large fill pile in the central portion of the site consisting of soil, rock, and broken concrete from utility and foundation construction on other portions of Otay Ranch. An area adjacent to the southeast of the fill pile is blanketed by loose, white, silty kelp by-product. There were no pools of liquid, distressed vegetation, which are indicators of USTs and ASTs, or ponds observed on the site during this investigation. In the Phase I ESA of Village Two East, Geocon noted that the stained soil adjacent to the former lube rack/drum storage area and maintenance/pesticide storage shed had been excavated and would be disposed of off-site. As required by the Phase I/II ESA, during the Phase I ESA of Village Two East, the 2,000-gallon UST and piping located at the former ranching operations center was closed by removal with the County of San Diego DEH oversight and in accordance with their guidelines. Soil samples collected from immediately below the UST (approximately nine feet below ground surface) did not exhibit concentrations of total petroleum hydrocarbons as gasoline (TPHg) at or above laboratory detection limits. However, soil samples collected at a depth of 16 feet exhibited concentrations of total petroleum hydrocarbons as diesel TPHd and TPHg at 2.3 milligrams per kilograms (mg/kg) and 460 mg/kg, respectively. In addition, TPHg and TPHd were detected in soil samples collected along the piping run.

Based on the laboratory analytical results of the soil samples, Geocon prepared a work plan dated May 17, 2004, to assess concentrations of petroleum hydrocarbons in soil in the vicinity of the former UST and piping run. Of the three soil samples Geocon collected in the vicinity of the former UST and piping run, TPHd was detected at or above the laboratory testing limit; TPHg was not detected. In a letter dated June 16, 2004, DEH indicated that due to elevated concentrations of petroleum hydrocarbons in the vicinity of testing location P5 (approximately 100 feet south of the former UST), additional assessment of the impacted soils was required. Therefore, a report titled Revised Report of Remedial Assessment and Excavation was prepared by Geocon in October 2005, to assess and remediate the lateral and vertical extent of petroleum hydrocarbons in soil in the vicinity of the former UST.

In addition, the report indicated that the hydrocarbon-stained soil observed by Geocon during the Phase I and Phase I/II ESAs needed to be removed and disposed of. Upon removal of the impacted soils, samples from beneath the excavated material was assessed and verified that the impacted soils had been removed.

The 2005 Ranch Operations Center Report indicated that due to the presumed depth and flow of groundwater in the area, the lack of beneficial uses, the use of municipally supplied water, and the removal of the soil containing minor concentrations of hydrocarbons, adverse groundwater impacts are not expected at the site.

Village Three

Village Three comprises approximately 368.4 acres. The site is generally vacant, undeveloped and covered with a moderate growth of vegetation. Most of the valley bottom portion of the project area has been used for crops, and is currently used for cattle grazing. Bio-solids recovered from sewage have been imported and applied to most of the valley-bottom.

The Phase I ESA conducted for Village Three concluded that there is a potential for agriculturally developed portions of the subject property to be impacted by residual agricultural chemicals. There was a large pile of uncharacterized demolition debris located along the northern bank of the Otay River and smaller areas of debris in other locations. Cattle carcasses are reported to be buried at two locations within the project area. Therefore, there is a potential for the generation of methane at the property. According to the Phase I ESA, there were no other recognized environmental conditions associated with prior or current land uses at the project site. The Phase I ESA recommended further assessment of the following areas of concern:

- Potential residual agricultural chemicals and impacts from soil augmenting bio-solids;
- Septic system leach fields; and
- The potential for methane gas from on- and off-site sources.

The Phase II ESA evaluated the areas of concern discussed above for Village Three. The results are summarized below.

- Agricultural Land Use: Low concentrations of detected OCPs are significantly below their respective preliminary remediation goals (PRGs) for residential soil; therefore, they do not appear to pose a potential health risk for residential use. There were no chlorinated herbicides detected in the samples analyzed.
- Low concentrations of barium, chromium, copper, vanadium, arsenic, and mercury ranging in concentrations from 0.06 mg/kg to 100 mg/kg were detected in the five samples analyzed. The maximum concentrations for each of these metals were

significantly lower than their respective PRGs for residential land use soils, with the exception of arsenic. Although concentrations of arsenic exceeded its residential PRG and slightly exceeded its industrial PRG in one soil sample, none of the arsenic concentrations exceeded the normal range of background arsenic in soils of the western United States or the arithmetic mean concentrations of California soils.

- **Methane Gas:** The concentrations of methane gas detected do not exceed the San Diego County Department of Planning and Land Use guidelines for action levels requiring mitigation. The San Diego County Department of Planning and Land Use guidelines were used as the City of Chula Vista does not have guidelines available at this time.
- **Groundwater Quality:** An analysis of groundwater was performed on two existing wells within the Village Three site. Volatile organic compounds (VOCs) or dissolved metals were not detected in the samples. Therefore, no further testing of the groundwater in these wells was recommended.

The Phase I Update for the southern portion of Village Three reported that herbicide “24D,” of low toxicity to humans and animals, was used intermittently after 2000. Further investigation was not recommended.

Village Four

The Village Four Community Park site is generally vacant and covered with a moderate growth of native vegetation, including grasses and scrub. The site has been historically used for agricultural crop production and cattle ranching. An unimproved road bisects the site and a generally north-south trending aqueduct tunnel was observed at the base of a slope adjacent to Wolf Canyon in the northern portion of the Village Four Community Park.

The Phase I ESA conducted for the Village Four Community Park Site did not identify any significant odors, pools of liquid, drums, significantly stained soil, distressed vegetation, ASTs, indicators of USTs, pits, or ponds. Geocon conducted a limited pesticide assessment at the site consisting of soil sampling and analysis for OCPs. Fifteen composite soil samples taken from the Village Four Community Park Site exhibited concentrations of toxaphene exceeding one-quarter of the residential PRGs. Concentrations of toxaphene ranged from below the laboratory detection limit of 0.085 mg/kg to 5.3 mg/kg. Concentrations of DDE and DDT were also detected in one or more composite samples at or above one-quarter their respective residential PRG. Low concentrations of endrin and/or endrin ketone (up to 0.028 mg/kg and 0.011 mg/kg, respectively) were also detected in one or more composite soil samples.

5.14.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, impacts from hazards and hazardous materials would be significant if the proposed project:

- Threshold 1: Is located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, a significant hazard to the public or the environment would be created;
- Threshold 2: Creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Threshold 3: Creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Threshold 4: Emits hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Threshold 5: Is located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and would result in a safety hazard for people residing or working in the project area;
- Threshold 6: Is located within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area;
- Threshold 7: Impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan;
- Threshold 8: Exposes people or structures to a significant risk or loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas.

As mentioned previously, impacts related to hazards were identified in the Otay Ranch GDP Program EIR. Because the EIR is a second tier of the Otay Ranch GDP Program EIR, the impacts identified in the Program EIR will also serve as the thresholds for determining impacts related to public health and safety for the propose SPA Plan.

- Threshold 9: Increase in urbanization would result in an increase in the uses, transport, storage, and disposal of hazardous waste materials and an associated increase in the risk of an upset condition in the area. Mitigation involves adherence to federal, state, and local laws and regulation regarding

hazardous materials, and emergency evacuation routes. Impacts would be reduced to levels below significance.

Threshold 10: Historic use of pesticides which would result in soil contamination and health effects. Mitigation involves conducting soil testing in appropriate areas. Impacts would be reduced to levels below significance.

5.14.3 Impacts

Threshold 1: Impacts from hazards and hazardous materials would be significant if the proposed project is located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, a significant hazard to the public or the environment would be created.

The proposed SPA Plan site is not located on any of the searched regulatory databases for hazardous materials sites (see Appendixes K-1 through K-7). Therefore, no impacts would occur.

Thresholds 2 and 3: Creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or, creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Construction activities associated with development of the proposed SPA Plan project would lead to the use of paints, solvents, and other chemicals for housing construction. These hazardous materials would be handled in accordance with California Occupational Safety and Health Administration (Cal-OSHA) requirements for employee safety and disposed of in accordance with state and county regulations. Compliance with existing regulations regarding the use or disposal of hazardous materials and wastes would prevent any adverse impacts on human health and safety from the proposed construction activities.

Residential development on the project site could use household quantities of hazardous materials, such as cleaning solvents, paint, fertilizers, pesticides, etc. This usage would be limited and is not expected to create human health hazards or public safety hazards. Residents shall be informed of the Pacific Waste Services' Households Hazardous Waste Collection Facility to encourage proper disposal of household hazardous wastes. This is done regularly through the Pacific Waste Service' website, newsletters, ads, and other public information programs.

Therefore, impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant. Additionally, the project is not anticipated to create a significant hazard to the public or environment involving the release of hazardous materials.

Threshold 4: Emits hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The proposed SPA Plan includes an elementary school. The 10.3-acre school parcel is sited within the Village Two Core area adjacent to a proposed park and multi-family residential (see Figure 3-5). As stated above, residential uses are not expected to create human health hazards or public safety hazards and therefore, no impact from hazardous emissions within one-quarter mile of an existing or proposed school would occur.

Threshold 5: Is located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and would result in a safety hazard for people residing or working in the project area.

The nearest airport is Brown Field, which is approximately three miles to the south of the project site. The site does not lie on either the runway approach or the departure paths for this airport. Brown Field Airport operations would not result in any significant impacts to the proposed project.

Threshold 6: Is located within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area.

The proposed SPA Plan site is not located within the vicinity of a private airstrip; therefore, no impacts would occur.

Threshold 7: Impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan.

Villages Two, Three, and a portion of Four are incorporated into Chula Vista's existing emergency disaster programs, including all fire and emergency services and mutual aid agreements. Emergency response to the project site would be handled by the Chula Vista Fire Department, the Chula Vista Police Department, or other responsible agency, depending on the nature of the emergency. Evacuation of the site is expected to occur along internal roadways on the site toward the major and arterial roadways serving the site. Therefore, the proposed project is not expected to interfere with emergency services and emergency evacuation plans.

Threshold 8: Exposes people or structures to a significant risk or loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas.

When fully developed, the majority of the project site and neighboring property will be primarily graded and therefore, the risk for wildfire is low.

However, the Wolf Canyon drainage, a natural open space area, located along the southern edge of Village Two and forming the eastern edge of Village Three would remain undisturbed and presents the most significant fire threat to this project, as vegetation would continue to grow unmanaged and increase the fire threat.

The proposed SPA Plan includes a Fire Protection Plan as required by Article 86 of the California Fire Code, which requires a FPP for all new development in the Urban Wildland Interface, including the proposed SPA Plan area adjacent to Wolf Canyon. The FPP requires that all detailed plans for architecture, landscaping, and engineering be in compliance with the concepts in the FPP and the SPA Plan and be submitted to the Fire Marshal for review and approval. Implementation of the FPP will reduce wildfire potential and therefore, no significant impact would occur.

Threshold 9: Increase in urbanization would result in an increase in the uses, transport, storage, and disposal of hazardous waste materials and an associated increase in the risk of an upset condition in the area. Mitigation involves adherence to federal, state, and local laws and regulation regarding hazardous materials, and emergency evacuation routes. Impacts would be reduced to levels below significance.

As discussed under Thresholds 2 and 3, above, impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

Threshold 10: Historic use of pesticides which would result in soil contamination and health effects. Mitigation involves conducting soil testing in appropriate areas. Impacts would be reduced to levels below significance.

Village Two

Historical uses of the Village Two property have included agricultural crop production, soil amendment mixing, and cattle ranching. The majority of the property is vacant and undeveloped. The former Otay Ranch Operations Center was located in the eastern portion of Village Two. Several demolished structures, foundations, concrete slabs, indicators of utility systems, and stockpiles of building material were observed at the former operations center. The Phase I ESA for Village Two East indicated that elevated levels of OCPs were present in the soils at the Village Two site, particularly in tilled areas and adjacent to structures at the former Otay Ranch Operations Center. Therefore, a subsequent report titled Revised Report of Additional Assessment and Remedial Excavation of the Otay Ranch Village Two Former Ranch Operations Center was prepared by Geocon in October 2005.

As part of the subsequent assessment and remedial excavation of soils at the former ranch operations center, an estimated total of 1,650 cubic yards of soil were excavated, stockpiled, and analyzed. The 2005 report indicated that the lateral and vertical extent of petroleum hydrocarbons in soil beneath the former UST have been adequately assessed

and excavated. None of the 26 soil samples collected from the bottom and sidewalls of the excavation exhibited TPHg/TPHd concentrations at or above the laboratory detection limits. Napthalene was detected in four of the soil samples; however, the concentrations were below acceptable threshold levels and therefore are not significant.

The proposed SPA Plan would allow for the development of 2,786 residential units, a commercial town center; Community Purpose Facility uses; neighborhood parks, including a town square; 87.9 acres of industrial uses; and a 10.3-acre elementary school. The concentrations of the pesticides in the soils at Village Two are below the acceptable threshold levels and are not considered a significant risk to public safety. The remediation and excavation report concluded that stockpiled soil removed from the excavation at the former UST is suitable for conditional reuse on-site. Therefore, there is no risk to human health or the environment and the site is suitable for development of residential uses.

Village Three

As stated above, Village Three is generally vacant, undeveloped, and covered with a moderate growth of vegetation.

The SPA Plan proposes a 176.5-acre industrial park and a 10.2-acre Community Purpose Facility within Village Three. Groundwater monitoring wells and gas monitoring probes were observed along the property lines of the landfill. No significant odors or pools of liquid, drums, significantly stained soil, distressed vegetation, ASTs, indicators of USTs, pits, or ponds were observed on Village Three.

Village Three is not listed on any of the searched regulatory databases (see Environmental Site Assessment included in this EIR as Appendix K-3). Properties reportedly within a one-eighth-mile radius of the site are listed on the leaking underground storage tank (LUST), UST/AST, and PERMITS databases. According to the database report, no open LUST cases are listed for properties within the one-eighth-mile search radius. However, the Phase I ESA indicated that these properties (including the Otay Landfill) have not impacted Village Three with hazardous wastes or materials. Based on the presumed depth and flow of groundwater in the area and the apparent distance and status of the listings of the properties listed on the regulatory databases, adverse impacts with respect to hazardous wastes and materials from the listed properties are not expected on Village Three.

The Phase II ESA indicated that the average concentrations of pesticides in the soil are below the PRGs and do not appear to present a risk to human health or the environment. Soil containing detectable concentrations of pesticides below acceptable human health risk thresholds may be reused as fill on-site with the concurrence of the San Diego Regional Water Quality Control Board.

Village Four Community Park Site

As stated above, the Phase I ESA conducted for the Village Four Community Park Site did not identify any significant odors, pools of liquid, drums, significantly stained soil, distressed vegetation, ASTs, indicators of USTs, pits, or ponds. However, Geocon conducted a limited pesticide assessment at the site consisting of soil sampling and analysis for OCPs. Fifteen composite soil samples taken from the Village Four Community Park Site exhibited concentrations of toxaphene exceeding one-quarter of the residential PRGs. The concentrations of the pesticides in the soils at the Village Four Community Park Site would be considered a significant risk to public safety and mitigation would be required.

5.14.4 Level of Significance Prior to Mitigation

The extent of petroleum hydrocarbons in soil beneath the former UST on Village Two have been adequately assessed and excavated. Soil samples collected from the bottom and sidewalls of the excavation do not exhibit TPHg/TPHd concentrations at or above the laboratory detection limits and are not considered a risk to public safety or the environment. The Phase I ESA conducted for Village Three concluded that there is a potential for agriculturally developed portions of the subject property to be impacted by residual agricultural, including soil augmenting and chemicals. Elevated levels of organochlorine pesticides were present in the soils at the Village Four site. Fifteen composite soil samples taken from the Village Four Community Park Site exhibited concentrations of toxaphene exceeding one-quarter of the residential PRGs. Concentrations of OCPs exceeding residential PRGs are generally limited to the upper two feet of soil. The concentrations of the pesticides in the soils at the Village Four Community Park Site would be considered a significant risk to public safety and mitigation would be required.

The nearest airport is Brown Field, which is approximately three miles to the south of the project site. The site does not lie on either the runway approach or the departure paths for this airport. Operation of Brown Field Airport would not result in any significant impacts to the proposed project.

The proposed SPA Plan includes a FPP as required by Article 86 of the California Fire Code, which requires a FPP for all new development in the Urban Wildland Interface, including the proposed SPA Plan area adjacent to Wolf Canyon. Implementation of the FPP will reduce wildfire potential and therefore, no significant impact would occur.

5.14.5 Mitigation Measures

In addition to implementation of BMPs for the protection of water quality (see Chapter 5.9, Water Resources and Water Quality), the following mitigation measures are required to reduce significant impacts associated with the potential exposure to hazardous materials.

Implementation of the proposed SPA Plan and Composite TM could potentially result in public health and safety impacts related to soil contamination at the project site and would require the following mitigation:

- 5.14-1 If soil is to be exported from the site during proposed grading and other construction activities, it should be characterized prior to proposed off-site use or disposal and handled in accordance with applicable environmental laws and regulations. In addition, contractors performing proposed grading and construction activities should employ adequate dust control measures to minimize exposure to soil and dust at the site.
- 5.14-2 If soil exhibiting hydrocarbon staining and/or odors are encountered at the site during grading and/or construction, the soil should be evaluated by a qualified professional (such as a professional engineer, registered geologist, or registered environmental assessor experienced in hazardous waste evaluations) and handled in accordance with applicable environmental laws and regulations.

5.14.6 Level of Significance After Mitigation

Compliance with existing ordinances, in combination with the mitigation measures described above for hazardous material exposure, reduces impacts from implementation of the proposed SPA Plan and Composite TM to below a level of significance.

6.0 CUMULATIVE IMPACTS

Section 15130 of the State CEQA Guidelines requires that an EIR address cumulative impacts when the incremental effect of a project would be cumulatively significant. The basis for the analysis of cumulative impacts is dependent on the nature of the issue.

An EIR must discuss cumulative impacts when they are significant and the project's incremental contribution is cumulatively considerable [CEQA Guidelines, Section 15130(a)]. If the combination of the project's incremental effect and the related effects from other projects is not significant, the EIR should briefly explain why the cumulative effect is not significant [CEQA Guidelines, Section 15130(a)(2)]. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (CEQA Statutes Section 21083).

The Otay Ranch GDP Program EIR provided a comprehensive examination of the cumulative impacts associated with buildout of the entire Otay Ranch in conjunction with other related projects. The buildout assumptions for the related projects included developments consisting of residential, industrial, office, rock quarry, airport, highway, and resort hotel. Assumptions included development of 13,935 acres over a total area of 30,434 acres. A total of 41,609 dwelling units, 1,269 lots, and 976 rooms in the southern San Diego County region were included in the evaluation. The cumulative findings from the Program EIR are summarized for each cumulative impact associated with buildout of the SPA Plan. The potentially significant cumulative impacts associated with the proposed project are land use, planning and zoning, paleontological resources, cultural resources, landform alteration/aesthetics, biological resources, agricultural resources, water resources and water quality, transportation, circulation and access, public services and utilities, and hazards/risk of upset.

Under CEQA Guidelines Sections 15130(a)(1), (2), (3), the discussion of cumulative impacts is to be based on either:

- (A) A list of past, present, and probable projects producing related or cumulative impacts, including those projects outside the control of the agency, or
- (B) A summary of projects contained in a general plan or related planning document that is designed to evaluate regional or areawide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency.

The cumulative analysis is required to include a summary of expected environmental effects and a reasonable analysis of the cumulative impacts of the relevant projects, references for additional information on individual projects, and reasonable options for avoiding or

mitigating any significant cumulative effects of a proposed project. The following analysis of cumulative impacts is based on a list of specific projects as well as regional plans. Other cumulative impacts are based on a list of implemented, concurrently processing, and future projects in and around the Otay Ranch (Table 6-1 and Figure 6-1).

6.1 Cumulative Effects Considered Significant

6.1.1 Land Use, Planning, and Zoning

The proposed SPA Plan, in conjunction with buildout of the Otay Ranch and other surrounding properties, would contribute to the conversion of over 30,000 acres of vacant land to urban uses. The overall loss of open space associated with the conversion would have a significant cumulative land use impact. In adopting the Findings of Fact to approve the Otay Ranch GDP, the City Council found that there are no feasible measures that would mitigate the impact below a level of significance. A Statement of Overriding Considerations was adopted. The City Council determined that the cumulative land use impact was acceptable because of specific overriding considerations.

6.1.2 Landform and Visual Aesthetics

Development of the proposed SPA Plan would contribute to a change in the visual quality of the region. The visual quality would be affected by the change in character from a rural to an urban setting and overall landform alteration. Impacts to the nighttime visual setting would also occur from the cumulative addition of lights as Otay Ranch and surrounding proposed projects are implemented. Application of the mitigation measures contained in the Otay Ranch GDP Program EIR to all of Otay Ranch and surrounding projects would reduce the cumulative effect of night lighting to below a level of significance.

Implementation of the mitigation measures described in the Otay Ranch GDP Program EIR and Section 5.2 of this report would further reduce the proposed project's incremental contribution to the significant cumulative impact. In adopting the Findings of Fact to approve the Otay Ranch GDP, the City Council found that there are no feasible measures that would mitigate the impact below a level of significance. A Statement of Overriding Considerations was adopted. The City Council determined that the cumulative landform and visual aesthetics impact was acceptable because of specific overriding considerations.

Cumulative visual impacts related to the change in visual character for the Otay Ranch and other major projects in the region would remain significant. No mitigation has been identified for the SPA Plan to reduce this impact, and therefore, the proposed project would result in significant cumulative impacts related to a change in the visual character of the project area that cannot be fully mitigated.

**TABLE 6-1
CUMULATIVE PROJECTS**

Project Name	Land Use	Status	Dwelling Units
Terra Nova	Planned Community	Completed	529 single-family 739 multi-family Includes: church, elementary school, neighborhood park, and community commercial uses, open space
Rancho Del Rey I, II	Planned Community	Completed	2,535 single-family 148 multi-family Includes: community and other commercial, neighborhood park, community purpose facility, 20-acre jr. high, middle school
Rancho Del Rey III	Planned Community	Completed	2,512 single-family 298 multi-family Includes: neighborhood park, 108-acre open space preserve and 26-acre jr. high/middle school
Sunbow SPA Plan	Planned Community	Developing/Completed	1,382 single-family 1,073 multi-family Includes: neighborhood park, elementary school, community commercial, industrial park, veterans home, 28-acre hospital, and 176-acre open space
Bonita Long Canyon	Planned Community	Developed	341 single-family 153 multi-family (future phase) Includes: 43-acre open space preserve, 47-acre senior high school, neighborhood commercial uses
Bonita Meadows	Subdivision	Planned	300 single-family
San Miguel Ranch	Planned Community	Developing	1,394 low, low-medium, medium, and medium-high density residential units. Includes: commercial and industrial uses, and 50 acres for SR-125.
EastLake III GDP/ Olympic Training Center	Planned Community	Developing/ Completed	300 multi-family units/150-acre Olympic training center. Includes: neighborhood commercial, commercial tourist, community purpose facility, and possible public/quasi-public use

**TABLE 6-1
CUMULATIVE PROJECTS
(continued)**

Project Name	Land Use	Status	Dwelling Units
EastLake I and Business Park	Industrial Park	Developing	130 acres industrial park 55 acres light industrial Includes: low rise office, neighborhood park, fire or police station
EastLake Woods/Vistas	Planned Community	Developing	2,061 single-family Includes: commercial tourist, commercial retail uses, schools, park and recreation areas and a fire station site.
EastLake Trails/ Greens	Planned Community	Developing	2,788 single-family 2,100 multi-family Includes: Senior high school, 2 elementary schools, 158-acre golf course/clubhouse, community commercial, freeway commercial, 2 neighborhood parks, low rise office, church, community purpose facility, and private park
EastLake III Senior Housing Project	Subdivision	Under Review	The proposed project consists of 494 residential units for active seniors on 18.4 acres of a 32-acre site. Includes: 13 buildings, each four stories tall. The densities and unit numbers proposed could result in approximately 988 new residents. The remaining 13.6 acres of the site would remain open space.
Salt Creek I	Subdivision	Completed	163 single-family 337 multi-family
Rolling Hills Ranch	Planned Community	Developing	2,099 single-family 284 multi-family Includes: community purpose facility, 2 elementary schools, a fire/police station, and 20-acre community park.
Otay Ranch Village One	Planned Community	Completed	1,456 single-family 1,609 multi-family units Village One West: 910 single-family Includes : community purpose facilities, commercial uses, open space, and circulation rights-of-way.

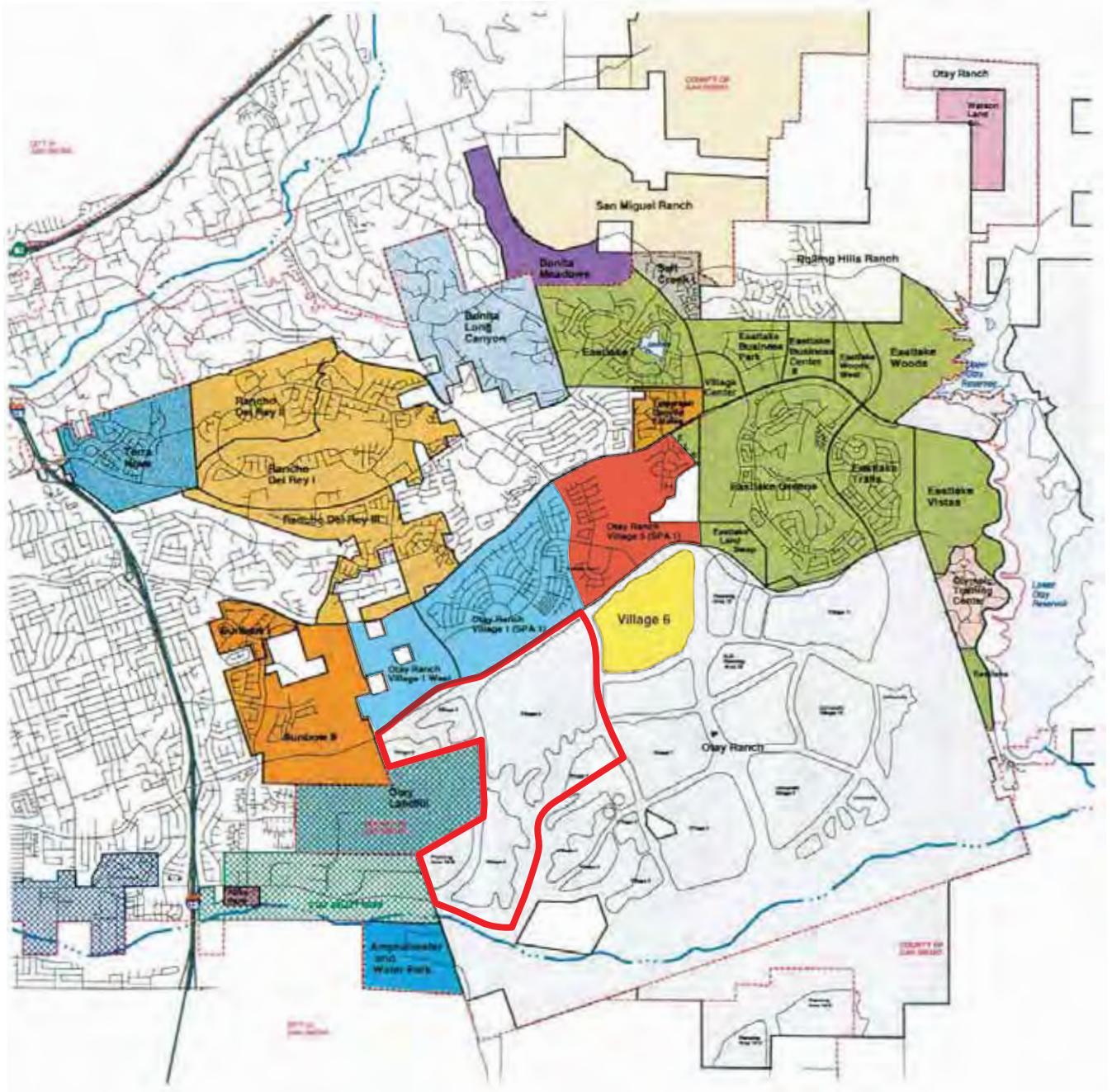
**TABLE 6-1
CUMULATIVE PROJECTS
(continued)**

Project Name	Land Use	Status	Dwelling Units
Otay Ranch Village Five	Planned Community	Completed	1,262 single-family 1,218 multi-family units Includes : community purpose facilities, commercial uses, open space, and circulation rights-of-way.
Otay Ranch Village Six	Planned Community	Developing	883 single-family 1,203 multi-family units Includes : community purpose facilities, an elementary school, a private high school, a public neighborhood park, commercial uses, open space, and circulation rights-of-way.
Otay Ranch Village Six Mixed Use	Mixed Uses within Planned Community	Developing	158 multi-family units (an increase of 97 multi-family units in Village Six) 20,000 sq. ft. of retail (includes 4,000 sq. ft of daycare space Includes: 4,000-sq.-ft. daycare center w/dedicated playground, Tot-Lot in the center of the project, community plaza with holiday tree focal point
Otay Ranch Village Seven	Planned Community	Developing	1,053 single-family 448 multi-family units Includes : community purpose facilities, an elementary school, a high school, a public park, commercial uses, open space, and circulation rights-of-way.
Otay Ranch Village Eleven	Planned Community	Developing	2,104 single- and multi-family units Includes: commercial, community purpose facilities, a school, park, and open space,
College Estates	Planned Community	Completed	949
Southwestern College Estates	Planned Community	Completed	599
Salt Creek Interceptor and Wolf Canyon Trunk Sewer	Sewer	Under Review	N/A
Telegraph Canyon Estates	Planned Community	Completed	344 single-family units
Vista Mother Miguel	Planned Community	Under Review	40 single-family units

**TABLE 6-1
CUMULATIVE PROJECTS
(continued)**

Project Name	Land Use	Status	Dwelling Units
Bella Laga	Subdivision	Developing	The project would develop approximately 93.1 acres of the approximately 180-acre site with low-density, estate residential land uses. The remaining 86.5 acres would be conserved as a Preserve area
SR-125	Transportation Corridor	Developing	Toll road/freeway
Bayfront Redevelopment	Residential and Mixed Uses	Plans for that development are in flux, and there is not, as yet, a fixed plan for development.	Possible ranges for development could include between 1,000 and 2,900 residential uses, a variety of hotels and commercial uses, the possibility of an event center, office uses and public and civic uses.

SOURCE: City of Chula Vista 2005.



 Project Boundary



FIGURE 6-1
Major Projects in Vicinity of The SPA Plan

6.1.3 Biological Resources

The Otay Ranch GDP Program EIR took into account the overall cumulative impacts on biological resources. A Statement of Overriding Considerations was adopted. The City Council determined that the cumulative impact to sensitive biological resources was acceptable because of specific overriding considerations.

Implementation of the proposed project would contribute to the cumulative loss of biological resources within Otay Ranch and City of Chula Vista Subarea. Both the Otay Ranch RMP and the Subarea Plan provide consideration for and mitigation of cumulative impacts to biological resources. Although portions of the project would designate open space that is in addition to existing planned Preserves, encroachment into both the RMP and Subarea Plan preserves requires a demonstration that the modified Preserve would provide for an equal or higher biological value. As noted in Section 5.3, the proposed reconfiguration of the Preserve provides for higher biological value than the original Preserve, and therefore, significant cumulative impacts related to losses to habitats and species, would be minimized through project implementation.

Impacts related to Future Facilities must meet a list of criteria set forth in the Subarea Plan. The proposed Future Facilities meet requirements related to siting within the least environmentally sensitive location, remaining within habitat impact thresholds, utilizing BMPs in design, and avoiding mitigation sites.

6.1.4 Cultural Resources

There are over 450 recorded locations of cultural resources within the cumulative impact projects region. The loss of these cultural resources and potentially unidentified sites would continue with development. There are 16 archaeological sites described on the proposed project site. Seven sites are reported within the boundaries of Village Two, and nine prehistoric sites within the Village Three/18b portion of the SPA Plan area. As a result of the testing of these historic sites, only one site was determined to be a significant historic resource. The remaining 15 sites were determined not to be significant historic resources. Measures outlined in the discussion of cultural resources above mitigate impacts associated with the approval of the SPA Plan.

The Otay Ranch GDP Program EIR resulted in the adoption of a Statement of Overriding Considerations, whereby the benefits of the Otay Ranch project were found to outweigh the significant cumulative impacts to cultural resources. No new cumulative impacts beyond those previously analyzed in the Otay Ranch GDP Program EIR would occur from implementation of the proposed project. However, because of the continuing depletion of the archaeological record through general development, cumulative impacts to cultural resources would remain significant and unavoidable.

6.1.5 Agricultural Resources

Cumulative development of Otay Ranch and surrounding properties would result in the permanent loss or impairment to lands suitable and historically used for production of coastal-dependent crops. Although the area is not currently used for this type of agricultural production, the region represents an agricultural resource because of its coastal climatic conditions. The cumulative commitment of agricultural land to urban uses would be irreversible. Mitigation measures identified in the Otay Ranch GDP Program EIR and the adopted Otay Ranch GDP Findings of Fact would mitigate cumulative impacts to the extent feasible. However, the cumulative impacts to agricultural resources would not be mitigated to a level below significant.

6.1.6 Transportation, Circulation, and Access

The basis of the traffic analysis was the Series 10.0, 2030 City/County Forecast Traffic Model produced by SANDAG. Linscott, Law & Greenspan worked with the City of Chula Vista and SANDAG to input the proper land use and network designations into the model for the six study scenarios. For each of these study scenarios, the model was run with the appropriate land use, City of Chula Vista circulation element, and the planned SR-125 assumptions for the entire study area. The Villages Two and Three project land uses were coded into the Traffic Model exactly as proposed/adopted. The proposed project was calculated to generate a total of 71,161 daily trips, 7,112 trips (4,446 inbound and 2,666 outbound trips) in the AM peak hour, and 8,610 trips (3,847 inbound and 4,763 outbound trips) in the PM peak hour. The improvements to provide capacity at buildout would require major costs and funding in addition to the project's contribution of transportation development impact fees (DIF). The construction of SR-125 and the widening of I-805 would be needed as a part of these improvements.

The level of cumulative traffic impacts during interim years would vary with the year and the status of SR-125. For the opening year and earlier forecasts, with and without SR-125, roadways and intersections have been addressed under Section 5.10. The effects of the SPA Plan have been addressed as near-term impacts that would require project mitigation measures in the same manner as project impacts to the existing circulation system.

Street improvements have been made conditions of approval for the proposed project, and other Otay Ranch villages as well as other off-site communities, and would be phased with development through adopted PFFPs. Access related impacts would occur if appropriate lane configurations are not provided at the project driveways. Cumulative impacts associated with streets listed in the mitigation section of the Second Tier EIR would be reduced to a level below significant.

The analysis contained in Section 5.10 found that cumulative impacts on I-805 would remain significant and unavoidable. LOS F was calculated on I-805 for individual scenarios

and the project adds traffic to this freeway. All required improvements to SR-125 and I-805 are the responsibility of Caltrans and SANDAG.

6.1.7 Air Quality

The analysis of air quality impacts contained in Section 5.11 included an analysis of cumulative impacts to air quality and found that the cumulative impacts related to long-term mobile emissions would be significant. No feasible mitigation is available to reduce this cumulatively significant impact to less than significant levels.

The region is currently classified as attainment for all criterion pollutants except Ozone. As of April 15, the region was classified as non-attainment for Ozone as a result of the application of the eight-hour Ozone standard. Ozone is not emitted directly, but is a result of atmospheric activity on precursors. Nitrogen oxides and hydrocarbons (reactive organic gases) are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone.

Because of the nature of the formation of ozone, it is a regional issue, rather than a localized one. The construction of the proposed project represents a cumulatively considerable contribution to the emission of ozone precursors, and a significant and unavoidable cumulative air quality impact.

6.1.8 Public Services and Utilities

Water

Water supplies in southern California fluctuate with precipitation, climatic conditions, and disputes over water rights from imported sources. Cumulative impacts to water supply associated with ongoing development are anticipated on a regional scale. The additional demand for the proposed SPA Plan in conjunction with the other proposed and approved projects within the Chula Vista area would be approximately 1.38 mgd. The proposed project plus cumulative development would incrementally increase regional water consumption; however, this increased demand for service has been anticipated and planned by the City of Chula Vista and Otay Water District. The WSA&V report indicated that the increase in water demand is consistent with the projected water demand included in the OWD UWMP and WRMP. The WSA&V report relied on water supply forecasts based on the projected potable water demands supplied entirely with imported water received from the SDCWA. However, the SDCWA relies in part on a water transfer with the Imperial Irrigation District and the agreement that provides for the water transfer is being challenged in court. In light of these cases, the assumption that the IID water transfer water will be available is questionable. Since the IID water transfer is being challenged, it is possible that the water from IID will not be available as anticipated. In the absence of this water a significant water supply impact would result.

6.2 Cumulative Effects Considered Not Significant

6.2.1 Geology and Soils

Geologic and soils impacts associated with development of the proposed SPA Plan are site-specific. These site-specific impacts are not additive with other projects.

6.2.2 Housing and Population

The cumulative development area was initially vacant land. No displacement of existing housing stock has occurred or would occur. The cumulative increase in housing stock would make a variety of dwelling unit types available to accommodate the SANDAG forecasted increase of 74,033 or more people by 2010 within the City. SANDAG's Growth Management Plan incorporates population, housing, and transportation forecasts. Particularly, the forecasts have identified specific projections for the City of Chula Vista. SANDAG's Growth Management Plan stresses maintaining a prosperous economy, while providing an adequate and equitable transportation system, preserving open space and habitat, increasing the rate of home ownership, and reforming the state-local tax system to assist and sustain all of the above. SANDAG encourages compliance with a transit design that promotes pedestrian access and interconnected public transportation through buses, metro, and trolleys. The cumulative projects in the region, as well as the proposed project, have incorporated mixed-use projects to accommodate the goals and policies as set forth in SANDAG's Growth Management Plan. Therefore, no significant cumulative impacts to housing and population are anticipated.

6.2.3 Paleontological Resources

Discovery and recovery of significant paleontological resources have occurred on developments within Otay Ranch, EastLake, Rancho del Rey, and other planned communities in Chula Vista. Cumulative buildout would result in an increased probability of disturbance to paleontological resources, causing potentially significant cumulative impacts. A positive effect of development is the potential discovery of significant fossils during the monitoring for project brushing and grading. These fossil resources would otherwise go undiscovered. These discoveries contribute important scientific information about the natural history in southwestern San Diego County. Implementation of mitigation measures similar to those proposed in the Otay Ranch GDP Program EIR for all developments within the cumulative impact area would mitigate cumulative impacts to below a level of significance.

6.2.4 Water Resources and Water Quality

Cumulatively, the recently developed and proposed communities would involve the creation of substantial areas of new impervious surfaces. These additional impervious surfaces

would reduce the amount of storm water infiltration. These conditions would also result in a decrease in potential recharge to the groundwater basin and an increase in runoff would. Urban activities, including construction, would add contaminated materials to this increased quantity of surface water runoff. The surface water quality, particularly in the Otay River, Poggi Canyon, and Wolf Canyon drainage basins, would be impacted. The increase in runoff and decrease in water quality would have a significant cumulative impact on these drainage basins. The mitigation measures to be incorporated into each project's final design plans based on the surface water modeling would reduce the potential cumulative impacts to a level below significant.

6.2.5 Noise

The analysis of noise impacts contained in Section 5.12 and Appendix H are based on regional cumulative traffic data from the most recent Series 10 regional growth forecasts. The analysis contained in Section 5.12, therefore, is inclusive of cumulative effects. Impacts related to noise are determined to be mitigated with the application of measures contained in Section 5.12.6. There are no significant cumulative noise impacts.

6.2.6 Public Services and Utilities

Sewer

The combined effect of buildout of the Otay Ranch GDP with other surrounding cumulative development would result in a total estimated sewage flow of 628,130 gpd within the Poggi Canyon sewer basins and 780,930 gpd within the Otay River Basin sewer basin. Additional wastewater transmission and treatment facilities would be necessary to accommodate this flow level. The cumulative impact would be potentially significant. Proposed mitigation requires that each applicant construct or contribute toward the cost of constructing required regional wastewater facilities in proportion to the flows contributed. The provision of regional facilities in conjunction with project-specific improvements would reduce the impacts to below a level of significance.

Integrated Waste Management

Buildout of the southern portion of San Diego County would result in a substantial increase in the generation of solid waste. Landfill capacity in the region is limited. The cumulative impact would be potentially significant. All new development within the region would have to comply with the City of Chula Vista and County of San Diego programs and regulations concerning long-term solid waste disposal. An Integrated Waste Management Plan was prepared for the Otay Ranch GDP. The development of the proposed project, along with other Otay Ranch villages and planning areas, would also be guided by this plan. The waste management program would include curbside recycling, neighborhood recycling/buyback centers, a materials recovery facility, a composting facility, and a

household waste collection facility. The cumulative impact could also be reduced by providing additional solid waste facilities and recycling facilities, transporting trash outside the region to less impacted areas, and meeting state-mandated recycling goals. The required PFFP for new developments would establish the fees and phasing associated with contribution toward the cost of construction of any regional facilities. The cumulative impact would be reduced to below a level of significance with implementation of such measures.

Law Enforcement, Fire Protection, and Emergency Medical Services

The overall population growth would substantially increase demands on law enforcement, fire protection, and emergency medical services. The cumulative impact would be potentially significant. Staffing and new facilities would be required to adequately accommodate the population increase expected at buildout. The required PFFP implementation at the time of development would provide these services incrementally and concurrent with need. With the development of master plans for fire service, law enforcement, and emergency, the cumulative impacts would be reduced to below a level of significance.

Schools

The combined new students that would be generated by the residential development proposed in the region would require new schools, staff, and supplies through buildout. The cumulative impact on the school districts would be potentially significant. As development occurs, school fees or assessments would be paid. Elementary, middle, and high school sites have been designated within specific Otay Ranch villages under the Otay Ranch GDP. Provision of land and financing mechanisms under PFFP requirements, plus the development of a school master plan, would mitigate the cumulative impact on schools to below a level of significance.

Library Services

Population growth in the SPA Plan region would result in the need for substantial additional library space, books, and staff. The cumulative impact would be potentially significant. The Otay Ranch GDP provides for the establishment of a “main library” as part of the Eastern Urban Center development. Payment of the development impact fees established for libraries would reduce the cumulative impact to below a level of significance.

Parks and Recreation

The cumulative development in the region would place substantial demands on neighborhood, community, and regional parks. The cumulative impacts on local and regional park and recreational facilities would be potentially significant. Implementation and design would be addressed through the SPA Plan Neighborhood Park Conceptual Master

Plan. Project-specific neighborhood and community park improvements would be installed as communities in which the parks occur are developed. The proposed project provides a centrally located 6.9-acre Neighborhood Park, a 7.1-acre Park in the eastern area of the site, a 1.4-acre Town Square in the Village Core, and 44.2 (net) acres of Community Park in a portion of Village Four for a total of 59.6 acres. The cumulative impacts would be reduced to below a level of significance with the long-term provision of both local and regional parks.

6.2.7 Hazards/Risk of Upset

The potential risk of adverse health effects associated with the use, transport, and storage of hazardous materials and generation of hazardous waste would increase with cumulative buildout. The potential for a significant cumulative impact would be reduced to a level less than significant with implementation of the mitigation measures identified in the Otay Ranch GDP Program EIR and adherence to applicable laws and regulations.

Where land uses associated with an Otay Ranch development would involve the use and transport of hazardous materials, the Otay Ranch GDP Program EIR mitigation measures require that the transport of hazardous waste by the applicant, subcontractors, and future businesses on existing and future roadways be conducted in accordance with the California Code of Regulations and the Code of Federal Regulations. These regulations identify Department of Transportation approved methods for packaging and containerizing hazardous waste. Department of Transportation approved methods also cover site-appropriate options and procedures relative to the handling and transporting of these wastes.

7.0 GROWTH INDUCEMENT

Under CEQA Guidelines Section 15126.2 (d), a project is defined as growth inducing when it directly or indirectly:

- fosters economic growth, population growth, or the construction of additional housing in the surrounding environment;
- removes obstacles to population growth;
- taxes existing public facilities and services; and/or
- encourages or facilitates other activities that could significantly affect the environment, either individually or cumulatively.

Growth inducement is generally dependent on the presence or lack of existing utilities and municipal or public services. The provision of such necessities in a non-serviced area can induce growth between newly serviced areas and the community from which the facilities are obtained. In addition, growth inducement can also be defined as growth that makes it more feasible to increase the density of development in surrounding areas.

The City of Chula Vista's growth management plan calls for directing growth in and around the city in an orderly fashion, to avoid leapfrog development, to protect and preserve the city's amenities, and to guide growth in a general west to east direction. The City of Chula Vista anticipates development of the SPA Plan area as part of the adopted Otay Ranch GDP. The project site and surrounding areas are also zoned for future urban growth. The City of Chula Vista already anticipates development of the project area as an urban community in an area already designated for future urban growth.

The first phase of development of the Otay Valley parcel of Otay Ranch is complete with construction of Villages One and Five. The proposed development of the SPA Plan is in conformance with the Otay Ranch phasing program. The project area is surrounded by the completed Otay Ranch developments of Villages One, Five, and Six. Extension of the Otay Valley parcel infrastructure from Villages One, Five and Six to the Proposed Project area is a logical progression of services, which supports orderly growth and avoids leapfrog development.

The Otay Ranch GDP Program EIR for the entire Otay Ranch, including the proposed project, discussed the ways in which Otay Ranch could foster growth. This discussion, found in Section 7 of the Otay Ranch Program EIR, is available for public review at the City of Chula Vista, Planning and Building Department, 430 F Street, Chula Vista, California, and is incorporated by reference in this EIR.

8.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) requires the evaluation of the uses of nonrenewable resources during the initial and continued phases of a project when a large commitment of such resources makes removal or nonuse thereafter unlikely. Approval of the proposed development for the SPA Plan and implementing tentative maps would commit these sites to development area of urban uses including housing, industrial, commercial, community services, and public facilities. The proposed project would require commitment of resources associated with construction and long-term operations, including but not limited to, lumber and other related forest products; sand, gravel, and concrete; asphalt; petrochemical construction materials; steel, copper, lead, and other metals; water; fuels; and energy. Uses of these resources would represent an incremental effect on the regional consumption of these commodities. Implementation of the proposed SPA Plan would involve consumption of electricity, which is, in part, derived from nonrenewable sources such as fossil fuels and natural gas.

The most notable nonrenewable resources identified by the Otay Ranch GDP and Otay Ranch GDP Program EIR are related to biological resources. While implementation of the Otay Ranch RMP would adequately compensate for this loss by setting aside comparable biological resources within the planned Otay Ranch Preserve, the net loss of these resources throughout Otay Ranch would be irreversible.

Implementation of the proposed SPA Plan would contribute to the loss of biological resources within Otay Ranch and the City of Chula Vista Subarea. Both the Otay Ranch RMP and the Subarea Plan provide consideration for and mitigation of cumulative impacts to biological resources. Although portions of the project would designate open space that is in addition to existing planned Preserves, encroachment into both the RMP and Subarea Plan preserves requires a demonstration that the modified Preserve would provide for an equal or higher biological value. As noted in Section 5.3, the proposed reconfiguration of the Preserve provides for higher biological value than the original Preserve, and therefore, significant impacts related to losses to habitats and species, would be minimized through project implementation.

9.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

9.1 Mineral Resources

Mineral resources of economic value on the Otay Ranch property include sand, gravel, crushed rock (known collectively as construction aggregate), and bentonitic clay. These mineral resources are important to the local construction industry for such uses as concrete, fill, road base, and building materials. Bentonitic clay is a highly expansive clay derived from the alteration of volcanic ash and is commonly found within the Otay Formation. Bentonitic clay has been reported to occur as relatively thin, discontinuous deposits within Telegraph, Poggi, and Wolf Canyons.

The mineral resources discussed above do not occur in such quantities within the SPA Plan area. Implementation of the proposed project would not result in significant impacts to mineral resources.

9.2 Gas and Electric Service

Gas and electric services are being extended within the grading for Olympic Parkway. Lateral connection to the project site would be accomplished by undergrounding within the street network. Installation of gas and electric infrastructure within street grading is consistent with current design plans and would not create impacts beyond the grading required for the road system. The SPA has been included in regional growth forecasts and energy demand projections, and therefore, energy supply and regional infrastructure needs are anticipated in long-range energy planning. Therefore, no significant impacts would occur due to the increased demand on installation of gas and electric infrastructure and supply to serve the proposed project.

10.0 ALTERNATIVES

In order to fully evaluate proposed projects, CEQA mandates that alternatives be discussed. Section 15126.6 of the State CEQA Guidelines requires the discussion of “a range of reasonable alternatives to the projects, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project” and the evaluation of the comparative merits of the alternatives. The alternatives discussion is intended to “focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project,” even if these alternatives would impede to some degree the attainment of the project objectives.

This EIR address four alternatives: a “No Project” alternative and three reduced development alternatives. The alternatives considered in this section are: no development (No Project Alternative) and three reduced development alternatives (Reduced Development Alternatives A, B, and C). Alternative site locations were considered as part of the analysis for the Otay Ranch GDP and were addressed in the Otay Ranch GDP Program EIR.

10.1 No Development (No Project Alternative)

This alternative assumes that the area within the SPA Plan would not be developed. Limited agriculture could be reintroduced. Population growth that would have been accommodated at this location would occur elsewhere. The location of that accommodation is unknown. To the extent that it occurs closer to job opportunities in more developed community’s potential effects such as air quality, resource conservation, and circulation could be reduced. To the extent that it is accommodated in more remote locations those impacts could increase.

Land Use

This alternative would retain existing undeveloped uses on the site. Significant impacts related to the conversion from undeveloped to urban uses would be avoided. Agricultural use could be reestablished; however, it would not be in conformance with the General Plan and Otay Ranch GDP land use designations or policies.

Landform Alteration/Aesthetics

This alternative would retain the SPA Plan area in an undeveloped condition. Visual impacts associated with preparing the site for development and extending the urban character and lighting would be eliminated, and approximately 143.0 acres of steep slopes would not be graded. The existing visual condition from Olympic Parkway would remain.

Biological Resources

There would be no significant impacts to biological resources under this alternative

Cultural and Pale ontological Resources

Potential impacts to archaeological site CA-SDI-12291b and paleontological resources located within the project area would be avoided with this alternative.

Geology and Soils

Because no homes would be constructed, potential geologic impacts related to ground shaking from earthquakes and localized unstable soils conditions would be avoided with this alternative.

Agricultural Resources

Under this alternative, the project area would be available for continued agricultural use. The conflict between urban and agricultural uses would not be avoided because of neighboring residential uses that are already developed and approved.

Housing and Population

This alternative would reduce the level of housing available to meet the future (2010) housing stock needs of the City of Chula Vista. The proposed affordable housing units would not be built. The lack of housing concurrent with need would have a potentially significant impact.

Water Resources and Water Quality

This alternative would eliminate the increase in runoff that would be created by development of the SPA Plan.

Transportation, Circulation, and Access

This alternative would eliminate the contribution of traffic to area roads and would avoid the significant impacts to the circulation system. Contribution to the regional roadway circulation system represented by the proposed project would not occur. Portions of Heritage Road, Birch Road, and La Media Road would not be built.

Air Quality

Significant amounts of air pollution emitted from project vehicle trips, and during project construction activities, would be eliminated under this alternative. There would be potential air quality effects associated with the continued use of the property; however, such effects are not significant because of the existing undeveloped condition of the site.

Noise

With the elimination of the proposed housing, there would be no sensitive receivers placed adjacent to Olympic Parkway, Heritage Road or other circulation element roadways. As such, there would be no significant noise impacts as a result of this alternative.

Public Services and Utilities

The elimination of development within the project area would reduce the near-future demand for new public services and utilities. There would be a 1.38 mgd reduction in the demand for potable water and 424,760 gpd of recycled water, and 628,130 gpd within Poggi Canyon sewer and 780,930 gpd within the Otay River Basin sewer would not be produced on-site. Because this alternative does not affect the regional demand for housing or impact population growth, these demands would be shifted to other areas in the region.

Those services based on population, such as library, police and fire, and civic facilities, would not be required at this location. As with water and sewer services, these demands would be shifted to other areas of the region.

Hazards/Risk of Upset

Under this alternative, the risk from upset of hazardous materials would be reduced over the proposed project. Continued use of the land for agriculture could represent a threat for the deposition of wastes; however, the potential and extent of such deposits is speculative.

Project Objectives

None of the project objectives would be achieved by the No Development (No Project Alternative) alternative.

10.2 Reduced Development Alternative A

There are three reduced development alternatives considered in this section (Reduced Development Alternatives A, B, and C). Table 10-1 provides a summary of the dwelling units proposed for each of these alternatives.

**TABLE 10-1
COMPARISON OF THE REDUCED DEVELOPMENT ALTERNATIVES**

	Reduced Development Alternative A	Reduced Development Alternative B	Reduced Development Alternative C
Single-family	1,133	709	1,130
Multi-family	586	1,801	1,263
Total residential units	1,719	2,510	2,393

The Reduced Development Alternative A designates the proposed SPA Plan area for low-medium residential at three to six dwelling units per acre, distributed around a Village Core, which includes higher density single- and multi-family residential use, an elementary school site, a community park site, a mixed-use site, two neighborhood park sites, and research and limited industrial uses.

Under the Reduced Development Alternative A, 1,133 single-family and 586 multi-family units would be designated within the project area. A total of 335.3 acres would be designated for residential use, with 266.9 acres planned for industrial uses, 348.0 acres for open space, and 18.7 acres for commercial use, 35.0 park acres, 8.1 CPF acres and 10.0 acres for a school. The detail of this land use is provided in Table 10-2 and the layout is provided in Figure 10-1.

Land Use

Development of Otay Ranch is based on the village concept, which plans for a Village Core with land uses that will meet the day-to-day needs of the village residents. The Village Core is required to have a mixed-use center that is pedestrian oriented and served by transit. The mixed-use center will have shops, schools, parks, and multi-family housing to support the other uses. The villages are to have a wide variety of housing types for all income levels. Multi-family housing is a key component to the village concept.

Under the Reduced Development Alternative A, a “village” has the following characteristics:

- A planned community with an individual, unique character;
- Designed to encourage mass transit and non-automotive forms of transportation and not physically oriented to prime arterials or major roads;
- Planned with higher intensity medium and medium-high density residential uses concentrated as part of the mixed commercial and community use Village Core focal point with single-family residential development surrounding the core areas; and
- Designed with optimal placement of open space and recreational areas to serve village residents

The Reduced Development Alternative A contains fewer multi-family dwelling units within the Village Core. Development under this alternative would reduce the amount of housing

**TABLE 10-2
REDUCED DEVELOPMENT ALTERNATIVE A LAND USES WITHIN VILLAGE TWO**

Neighborhood Area	Gross Acreage	Dwelling Units	Dwelling Units/Acre
Single-Family			
R-1	38.9	105	2.7
R-2	32.6	120	3.7
R-3	57.8	299	5.2
R-4	18.5	95	5.2
R-5	18.7	69	3.7
R-6	14.7	47	3.2
R-7	73.4	199	2.7
R-8	<u>40.2</u>	<u>199</u>	<u>5.2</u>
Subtotal	294.8	1,133	3.8
Multi-Family			
R-9	16.7	286	18.0
R-10	<u>23.8</u>	<u>300</u>	<u>14.0</u>
Subtotal	40.5	586	15.0
Community Purpose Facility			
CPF-1	0.8	N/A	N/A
CPF-2	6.5	N/A	N/A
CPF-3	<u>0.8</u>	N/A	N/A
Subtotal	8.1	N/A	N/A
Commercial			
C-1	<u>18.7</u>	N/A	N/A
Subtotal	18.7	N/A	N/A
Parks			
P-1	10.0	N/A	N/A
CP	<u>25.0</u>	N/A	N/A
Subtotal	35.0	N/A	N/A
Schools			
S-1	<u>10.0</u>	N/A	N/A
Subtotal	10.0	N/A	N/A
Open Space			
Streets	<u>45.7</u>	N/A	N/A
Subtotal	246.9	N/A	N/A
TOTAL	734.2	1,719	

**Reduced Development Alternative A
Land Uses within Village Three**

Use	Gross Acreage
Industrial	
IND-1	54.5
IND-2	26.4
IND-3	60.3
IND-4	26.4
IND-5	11.3
IND-6	7.8
Open Space	146.8
Circulation	34.8
TOTAL	368.3

NOTE: Ind = Industrial
CPF = Community Purpose Facility

Map Source: Hunsaker and Associates, 2003

OTAY RANCH VILLAGES 2 & 3



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FIGURE 10-1
Reduced Developed Alternative A

available within the SPA Plan area by approximately 37 percent relative to the proposed project. This would reduce the ability of the City to meet the SANDAG-projected need for an additional 20,823 dwelling units by 2010. The lack of housing concurrent with need as shown in SANDAG forecasts and in the Growth Management Plan would result in a potentially significant impact.

Land use impacts also center on the conversion of open areas to developed areas. This conversion would occur under either the proposed project or the Reduced Development Alternative A and would be considered a significant impact.

Biological Resources

The direct impacts to sensitive biological resources under the Reduced Development Alternative A would be greater than the proposed project's. The current development footprint pursuant to the adopted Subarea Plan permits an impact to 0.98 acre of Otay tarplant, a narrow endemic species, containing 25,000 tarplants.

The project proposes a Boundary Adjustment to the City of Chula Vista Subarea Plan. The proposed Preserve Boundary Adjustment would provide a net benefit to conservation of Covered Species and habitats within the modified Preserve by inclusion of additional Tier I habitat, providing for higher biological value of the Preserve. The proposed Boundary Adjustment would also increase conservation of Otay tarplant, a listed plant species.

Housing and Population

Development under the Reduced Development Alternative A would reduce the amount of housing available within the SPA Plan area by approximately 37 percent relative to the proposed project. This would reduce the ability of the City of Chula Vista to meet the projected need for an additional 20,823 dwelling units by 2010. The lack of housing concurrent with needs as shown in SANDAG forecasts and in the Growth Management Plan would result in a potentially significant impact.

Water Resources and Water Quality

The development under this alternative would result in higher predestination flows to the Poggi Canyon basin from the Village Two Northwest subbasin. An additional detention basin would be required for peak flow from the Village Two West area.

The proposed detention facilities in Poggi Canyon, Wolf Canyon and the Otay Valley Road watershed mitigate the 100-year peak flow rates below the pre-developed peak flow rates at the watershed outlet locations. The development of Reduced Development Alternative A would control the rate of on-site, post-development peak storm water runoff discharges. The Reduced Development Alternative A proposes significant grading modifications as

compared to the proposed project. A portion of Wolf Canyon which is located in the MSCP preserve would not be filled in from development of this alternative. As such, there would be a measurable reduction in the volume or quality of the runoff from the site.

Transportation, Circulation, and Access

The traffic analysis conducted for this project indicated that the cumulative traffic effects of the Reduced Development Alternative A would not impact any intersections in the study area. It would, however, adversely affect eight roadway segments in the vicinity of the project. The following segments are projected to operate at a level of service below C:

- Telegraph Canyon Road from I-805 to Oleander Avenue (LOS E);
- Telegraph Canyon Road from Oleander Avenue to Medical Center Drive (LOS D);
- Telegraph Canyon Road from Medical Center Drive to Paso Ranchero/Heritage Road (LOS D)
- Otay Lakes Road from Eastlake Parkway to Lane Avenue LOS D);
- Olympic Parkway from I-805 to Medical Center Drive (LOS D);
- Olympic Parkway from Heritage Road to La Media Road (LOS D);
- Rock Mountain Road from La Media Road to SR-125 (LOS D); and
- Rock Mountain Road from SR-125 to Eastlake Parkway (LOS F).

In addition, under the Reduced Development Alternative A, the following segments of I-805 are calculated to deteriorate to LOS E or LOS F (The remaining segments are calculated to operate at LOS D or better.):

- Northbound I-805 from Telegraph Canyon Road to East H Street (LOS F(0) during the AM peak hour and LOS E during the PM peak hour);
- Southbound I-805 from East H Street to Telegraph Canyon Road (LOS F(0) during the AM and PM peak hours);
- Southbound I-805 from Telegraph Canyon Road to Olympic Parkway (LOS E during the PM peak hour); and
- Southbound I-805 from Olympic Parkway to Main Street (LOS E during the AM peak hour and LOS F(0) during the PM peak hour).

With development in accordance with the Reduced Development Alternative A, significant traffic impacts associated with the implementation of the proposed SPA Plan would be reduced but would not be avoided. Because the significant traffic impacts are cumulative, the traffic mitigation measures would be unchanged from those required of the proposed project.

Air Quality

Air quality impacts associated with vehicular trips would be reduced under the Reduced Development Alternative A. Short-term air quality impacts associated with construction would be slightly reduced because the area and extent of grading would be reduced because development under this alternative would not extend into a part of Wolf Canyon. There could be a slight decrease in overall long-term air quality impacts associated with power generation and the operation of on-site commercial facilities due to the reduced population. Overall, the reduction in air quality impacts would be minor and the cumulative impact would remain significant and unavoidable.

Noise

The grading plan for the Reduced Development Alternative A would be very similar to the grading plan required for the proposed project. The proximity of future development to major roadways would remain unchanged. The mitigation measures for noise impacts to future development areas would also be expected to remain unchanged. Mitigation measures for noise impacts associated with construction would remain unchanged. This alternative, therefore, does not avoid or lessen noise impacts.

Public Services and Utilities

Potable Water

The projected potable water demand for the project area for the Reduced Development Alternative A is approximately 1.0 mgd, as compared to the 1.5 mgd under the proposed project. As with the proposed project, the development of this alternative can receive water service by expanding the existing 624 and 711 Zone water systems. However, as with the proposed project, the SDCWA, which supplies water to the SPA Plan area, relies in part on a water transfer with the Imperial Irrigation District and the agreement that provides for the water transfer is being challenged in court. In light of these cases, the assumption that the IID water transfer water will be available is questionable. Since the IID water transfer is being challenged, it is possible that the water from IID will not be available as anticipated. In the absence of this water a significant water supply impact would result.

Recycled Water

The projected recycled water demand for this alternative is 364,734 gpd, which is slightly less than the proposed project demand of 440,000 gpd. As with the proposed project, the development of this alternative will be served by the 680 Zone recycled water system through connections to the 12-inch 680 recycled zone main in La Media Road and the 16-inch line in La Media Road.

Waste Generation

The SPA Plan area would be served by the Otay Landfill, which has adequate capacity to accommodate waste generated by proposed project. The waste generated would be slightly less for the Reduced Development Alternative A than the proposed project because fewer residential units would be allowed.

Schools

Project implementation under the Reduced Development Alternative A would have a significant impact on schools. Development of this alternative is expected to generate approximately 1,391 students between elementary, middle school, and high school grades (Table 10-3).

**TABLE 10-3
STUDENT GENERATION RATES FOR THE
REDUCED DEVELOPMENT ALTERNATIVE A**

Grade	Generation Rate Students/Unit	Students		Total Students Generated
		SF	MF	
K-6	SF=0.3485 MF=0.3164	395	185	580
7-8	SF=0.11 MF=0.063	125	37	162
9-12	SF=0.21 MF=0.095	238	56	294
Total Students Generated				1036

SOURCE: Chula Vista Elementary School District; Sweetwater Union High School District.

SF=Single-family, MF=Multi-family.

As with the proposed project discussed above, the Reduced Development Alternative A would increase the number of elementary, middle, and high school students beyond the existing demand and would have a significant impact on the existing schools. It does, however, have fewer students than is represented by the proposed project.

Library Services

Implementation of the Reduced Development Alternative A would result in increased demand on existing library services, including a need for approximately 2,624 square feet of library facilities based on the expected project population of people of 5,249. While this increased demand on library services was created by an expected population increase in Otay Ranch, library facilities do not need to be constructed in the area in which the demand was created. Therefore, as with the proposed project, a potentially significant impact to library services would result if new library facilities are not constructed within Chula Vista.

Police and Fire Protection and Emergency Medical Services

Impacts associated with implementation of the Reduced Development Alternative A would be similar for police and fire protection and emergency medical services to those of the proposed project. No additional impacts are anticipated with implementation of this alternative.

Hazards/Risk of Upset

The hazards/risk of upset impacts would be reduced slightly under the Reduced Development Alternative A, in accordance with the reduced population at buildout and no development within Wolf Canyon. There would be little change overall in the severity of this less than significant impact.

Cultural

As a result of the development the Reduced Development Alternative A of the Village Three portion of the project, significant impacts to CA-SDI-12,291b would be avoided. Therefore, as a result of completion of the Reduced Development Alternative A, no significant impact will result to cultural resources.

Project Objectives

The Reduced Development Alternative A would implement some of the project objectives of the proposed project; however, the following objectives would not be met with this alternative:

- Establish a pedestrian and transit-oriented village with an intense urban core to reduce reliance on the automobile and promote walking and the use of bicycles, buses, and regional transit.

- Implement the goals, objectives, and policies of the adopted Chula Vista General Plan, and particularly, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan. Establish a pedestrian-oriented village with an intense urban core to reduce reliance on the automobile and promote walking, and use of bicycles, buses, and regional transit.
- Wisely manage limited natural resources.

The Reduced Development Alternative A would reduce some of the environmental effects associated with the project while implementing some, but not all, of the project objectives.

10.3 Reduced Development Alternative B

The Reduced Development Alternative B designates Village Two as a “transit village” served by the future extension of the Bus Rapid Transit, which integrates SANDAG’s adopted *Transit First!* Strategy into the Otay Ranch and locates a station within Village Two.

The station location in Village Two would serve as a vital stop for travel to other Otay Ranch and regional destinations.

The Reduced Development Alternative B would designate 709 single-family units and 1,801 multi-family units within the project area including 361.8 acres for residential use, 11.9 acres for commercial use, 266.9 acres for industrial uses, 379.5 acres for open space, 58.6 acres for a park, and 9.7 CPF acres. There would be 10.1 acres planned for a school.

The detail of this alternative is provided in Table 10-4 and illustrated in Figure 10-2.

Land Use

The Reduced Development Alternative B has fewer multi-family dwelling units within the Village Core than the proposed project. There are three objectives in the Land Use and Transportation Element of the General Plan that apply to Village Two. These objectives include policies to: create balanced communities to maintain a high quality of life for its residents (Objective LUT 61); require development to consider and plan for careful use of natural and man-made resources (Objective LUT 62); provide efficient multi-modal access and connections to and between activity centers (Objective LUT 63).

While development under the Reduced Development Alternative B achieves these goals, it places fewer multi-family residential units in the Village Core area and, as such, does not as readily promote Objective LUT 63 as does the proposed project.

**TABLE 10-4
REDUCED DEVELOPMENT ALTERNATIVE B
LAND USES WITHIN VILLAGE TWO AND A PORTION OF VILLAGE FOUR**

Neighborhood Area	Gross Acreage	Dwelling Units	Dwelling Units/Acre
Single-Family			
R-1	38.9	105	2.7
R-2	7.2	37	5.2
R-3	19.7	53	2.7
R-4	18.0	66	3.7
R-5	20.2	54	2.7
R-6	9.5	49	2.7
R-7	7.9	25	3.2
R-8	73.4	199	2.7
R-9	<u>33.4</u>	<u>121</u>	<u>3.7</u>
Subtotal	228.2	709	3.1
Multi-Family			
R-10	19.1	266	14.0
R-11	10.7	93	8.7
R-12	2.5	50	20.0
R-13	1.2	20	20.0
R-14	15.7	136	8.7
R-15	11.5	207	14.0
R-16	23.7	331	14.0
R-17	9.1	126	14.0
R-18	9.1	126	14.0
R-19	7.2	99	14.0
R-20	<u>23.8</u>	<u>347</u>	<u>14.0</u>
Subtotal	40.5	1,801	4.60
Community Purpose Facility			
CPF-1	0.8	N/A	N/A
CPF-2	0.8	N/A	N/A
CPF-3	5.8	N/A	N/A
CPF-4	1.5	N/A	N/A
CPF-5	0.8	N/A	N/A
Subtotal	9.7	N/A	N/A
Commercial			
C-1	<u>11.9</u>	N/A	N/A
Subtotal	11.9	N/A	N/A
Parks			
P-1	7.0	N/A	N/A
P-2	7.0	N/A	N/A
P-3*	<u>44.6</u>	N/A	N/A
Subtotal	58.6	N/A	N/A
Schools			
S-1	<u>10.1</u>	N/A	N/A
Subtotal	10.1	N/A	N/A

**TABLE 10-4
 REDUCED DEVELOPMENT ALTERNATIVE B
 LAND USES WITHIN VILLAGE TWO AND A PORTION OF VILLAGE FOUR
 (continued)**

Neighborhood Area	Gross Acreage	Dwelling Units	Dwelling Units/Acre
Open Space	232.7	N/A	N/A
Streets	<u>53.9</u>	N/A	N/A
Subtotal	286.6	N/A	N/A
TOTAL	818.9	2510	

*The approximate 44.6 acre portion of Village Four for the park site is included in Village Two.

**Reduced Development Alternative B
 Land Uses Within Village Three**

Use	Gross Acreage
Industrial	
IND-1	54.5
IND-2	26.4
IND-3	60.3
IND-4	26.4
IND-5	11.3
IND-6	7.8
Open Space	146.8
Circulation	34.8
TOTAL	368.3

NOTE: Ind = Industrial; CPF = Community Purpose Facility

Map Source: Hunsaker and Associates, 2003

OTAY RANCH VILLAGES 2, 3, & 4



FIGURE 10-2
Reduced Development Alternative B

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Biological Resources

The direct impacts to sensitive biological resources under the Reduced Development Alternative B would be greater than the proposed project's. The current development footprint pursuant to the adopted Subarea Plan permits an impact to 0.98 acre of Otay tarplant, a narrow endemic species, containing 25,000 tarplants.

The project proposes a Boundary Adjustment to the City of Chula Vista Subarea Plan. The proposed Preserve Boundary Adjustment would provide a net benefit to conservation of Covered Species and habitats within the modified Preserve by inclusion of additional Tier I habitat, providing for higher biological value of the Preserve. The proposed Boundary Adjustment would also increase conservation of Otay tarplant, a listed plant species.

Housing and Population

Development under the Reduced Development Alternative B would reduce the amount of housing available within the SPA Plan area by approximately 10 percent fewer units relative to the proposed project. This would reduce the ability of the City of Chula Vista to meet the projected need for an additional 20,823 dwelling units by 2010. The lack of housing concurrent with needs as shown in SANDAG forecasts and in the Growth Management Plan would result in a potentially significant impact.

Water Resources and Water Quality

The development under this alternative would result in higher predetention flows to the Poggi Canyon basin from the Village Two Northwest subbasin. An additional detention basin would be required for peak flow from the Village Two West area.

The proposed detention facilities in Poggi Canyon, Wolf Canyon, and the Otay Valley Road watershed mitigate the 100-year peak flow rates below the pre-developed peak flow rates at the watershed outlet locations. Development under the Reduced Development Alternative B would control the rate of on-site, post-development peak storm water runoff discharges. The Reduced Development Alternative B proposes significant grading modifications as compared to the proposed project. A portion of Wolf Canyon, which is located in the MSCP preserve, would not be filled in from development of this alternative. As such, there would be a measurable reduction in the volume or quality of the runoff from the site.

Transportation, Circulation, and Access

Based on the traffic analysis conducted for the General Plan, the cumulative traffic effects of the Reduced Development Alternative B would adversely affect seven roadway segments in the vicinity of the project. The following segments are projected to operate at a level of service below C:

- Otay Lakes Road between Eastlake Parkway and Lane Avenue;
- Olympic Parkway between I-805 and Oleander;
- Eastlake Parkway between Hunte Parkway and Otay Valley Road;
- Hunte Parkway from Eastlake Parkway to SR-125;
- Marina Parkway between E street and J Street;
- Telegraph Canyon Road between Paseo del Rey and Paseo Ranchero; and
- Telegraph Canyon Road between Paseo Ranchero and Otay Lakes Road.

In addition, under the Reduced Development Alternative B the following segments of I-805 are calculated to deteriorate to LOS E or LOS F:

- I-805 between H Street and Telegraph Canyon Road;
- I-805 between Telegraph Canyon Road and Orange Avenue; and
- I-805 between Orange Avenue and Main Street.

With development in accordance with the Reduced Development Alternative B, significant traffic impacts associated with the implementation of the proposed SPA Plan would be reduced but would not be avoided. Because the significant traffic impacts are cumulative, the traffic mitigation measures would be unchanged from those required of the proposed project.

Air Quality

Air quality impacts associated with vehicular trips would be reduced under the Reduced Development Alternative B. Short-term air quality impacts associated with construction would be slightly reduced because the area and extent of grading would be reduced because development under this alternative would not extend into a portion of Wolf Canyon. There could be a slight decrease in overall long-term air quality impacts associated with power generation and the operation of on-site commercial facilities due to the reduced population. Overall, the reduction in air quality impacts would be minor and the cumulative impact would remain significant and unmitigable.

Noise

The grading plan for the Reduced Development Alternative B would be very similar to the grading plan required for the proposed project. The proximity of future development to major roadways would remain unchanged. The mitigation measures for noise impacts to future development areas would also be expected to remain unchanged. Mitigation measures for noise impacts associated with construction would remain unchanged. This alternative, therefore, does not avoid or lessen noise impacts.

Public Services and Utilities

Potable Water

The projected potable water demand for the project area for the Reduced Development Alternative B is approximately 1.2 mgd, as compared to the 1.5 mgd under the proposed project. As with the proposed project, the development of this alternative can receive water service by expanding the existing 624 and 711 Zone water systems.

Recycled Water

The projected recycled water demand for this alternative is 444,609 gpd. As with the proposed project, the development of this alternative will be served by the 680 Zone recycled water system through connections to the 12-inch 680 recycled zone main in La Media Road and the 16-inch line in La Media Road. The projected demand for the proposed project is 0.44 mgd. However, as with the proposed project, the SDCWA, which supplies water to the SPA Plan area, relies in part on a water transfer with the Imperial Irrigation District and the agreement that provides for the water transfer is being challenged in court. In light of these cases, the assumption that the IID water transfer water will be available is questionable. Since the IID water transfer is being challenged, it is possible that the water from IID will not be available as anticipated. In the absence of this water a significant water supply impact would result.

Waste Generation

The SPA Plan area would be served by the Otay Landfill, which has adequate capacity to accommodate waste generated by proposed project. The waste generated would be slightly less for the Reduced Development Alternative B than the proposed project because there would be fewer residential units allowed.

Schools

Project implementation under the Reduced Development Alternative B would have a significant impact on schools. Development of this alternative is expected to generate

approximately 1,391 students between elementary, middle school, and high school grades (Table 10-5).

**TABLE 10-5
STUDENT GENERATION RATES FOR THE
REDUCED DEVELOPMENT ALTERNATIVE B**

Grade	Generation Rate Students/Unit	Students		Total Students Generated
		SF	MF	
K-6	SF=0.3485 MF=0.3164	247	570	817
7-8	SF=0.11 MF=0.063	78	113	191
9-12	SF=0.21 MF=0.095	149	171	320
Total Students Generated				1328

SOURCE: Chula Vista Elementary School District; Sweetwater Union High School District.

SF=Single-family, MF=Multi-family.

As with the proposed project discussed above, Reduced Development Alternative B would increase the number of elementary, middle, and high school students beyond the existing demand and would have a significant impact on the existing schools. It does, however, have fewer students than is represented by the proposed project.

Library Services

Implementation of the Reduced Development Alternative B would result in increased demand on existing library services, including a need for approximately 3,810 square feet of library facilities based on the expected project population of people of 7,620. While this increased demand on library services was created by an expected population increase in Otay Ranch, library facilities do not need to be constructed in the area in which the demand was created. Therefore, as with the proposed project, a potentially significant impact to library services would result if new library facilities are not constructed within Chula Vista.

Police and Fire Protection and Emergency Medical Services

Impacts associated with implementation of the Reduced Development Alternative B would be similar for police and fire protection and emergency medical services to those of the proposed project. No additional impacts are anticipated with implementation of this alternative.

Hazards/Risk of Upset

The hazards/risk of upset impacts would be reduced slightly under the Reduced Development Alternative B, in accordance with the reduced population at buildout and no

development within Wolf Canyon. There would be little change overall in the severity of this less than significant impact.

Cultural

As a result of the development the Reduced Development Alternative B of the Village Three portion of the project, significant impacts to CA-SDI-12,291b will be avoided. Therefore, as a result of completion of the Reduced Development Alternative B for Village Two and Village Four portions of the proposed project, no significant impact will result to cultural resources.

Project Objectives

The Reduced Development Alternative B would implement some of the project objectives of the proposed project; however, the following objectives would not be met with this alternative:

- Establish a pedestrian and transit-oriented village with an intense urban core to reduce reliance on the automobile and promote walking and the use of bicycles, buses, and regional transit.
- Implement the goals, objectives, and policies of the adopted Chula Vista General Plan, and particularly, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan. ~~Establish a pedestrian-oriented village with an intense urban core to reduce reliance on the automobile and promote walking, and use of bicycles, buses, and regional transit.~~

The Reduced Development Alternative B would reduce some of the environmental effects associated with the project while implementing some, but not all of the project objectives.

10.4 Reduced Development Alternative C

The land uses for the Reduced Development Alternative C include approximately 2,393 residential units, of which 1,130 units are single-family and 1,263 units are multi-family and approximately 255.1 acres of industrial development. Approximately 50.6 acres of Industrial land would be situated on the southern portion of Village Two West within the landfill buffer area; the remainder of Village Two West, which is not located in the landfill buffer, would be single-family residential. Approximately 28 acres of industrial land would also be located on the westernmost portion of Village Two proper within the landfill buffer. The Industrial uses proposed within the landfill buffer are consistent with the adopted GDP. The remaining acres would be developed with non-residential uses, including community purpose facilities, schools, a public park, commercial uses, open space, and circulation rights-of-way. Figure 10-3 shows the land use plan for the Reduced Development Alternative C.

OTAY RANCH VILLAGES 2, 3, & 4



LEG END	ACREAGE	BUILDING	SHRUB/T	SOFT USE
3.1	17.4	00	12.2%	00 00 00
3.2	17.4	00	12.2%	00 00 00
3.3	17.4	00	12.2%	00 00 00
3.4	17.4	00	12.2%	00 00 00
3.5	17.4	00	12.2%	00 00 00
3.6	17.4	00	12.2%	00 00 00
3.7	17.4	00	12.2%	00 00 00
3.8	17.4	00	12.2%	00 00 00
3.9	17.4	00	12.2%	00 00 00
3.10	17.4	00	12.2%	00 00 00
3.11	17.4	00	12.2%	00 00 00
3.12	17.4	00	12.2%	00 00 00
3.13	17.4	00	12.2%	00 00 00
3.14	17.4	00	12.2%	00 00 00
3.15	17.4	00	12.2%	00 00 00
3.16	17.4	00	12.2%	00 00 00
3.17	17.4	00	12.2%	00 00 00
3.18	17.4	00	12.2%	00 00 00
3.19	17.4	00	12.2%	00 00 00
3.20	17.4	00	12.2%	00 00 00
3.21	17.4	00	12.2%	00 00 00
3.22	17.4	00	12.2%	00 00 00
3.23	17.4	00	12.2%	00 00 00
3.24	17.4	00	12.2%	00 00 00
3.25	17.4	00	12.2%	00 00 00
3.26	17.4	00	12.2%	00 00 00
3.27	17.4	00	12.2%	00 00 00
3.28	17.4	00	12.2%	00 00 00
3.29	17.4	00	12.2%	00 00 00
3.30	17.4	00	12.2%	00 00 00
3.31	17.4	00	12.2%	00 00 00
3.32	17.4	00	12.2%	00 00 00
3.33	17.4	00	12.2%	00 00 00
3.34	17.4	00	12.2%	00 00 00
3.35	17.4	00	12.2%	00 00 00
3.36	17.4	00	12.2%	00 00 00
3.37	17.4	00	12.2%	00 00 00
3.38	17.4	00	12.2%	00 00 00
3.39	17.4	00	12.2%	00 00 00
3.40	17.4	00	12.2%	00 00 00
3.41	17.4	00	12.2%	00 00 00
3.42	17.4	00	12.2%	00 00 00
3.43	17.4	00	12.2%	00 00 00
3.44	17.4	00	12.2%	00 00 00
3.45	17.4	00	12.2%	00 00 00
3.46	17.4	00	12.2%	00 00 00
3.47	17.4	00	12.2%	00 00 00
3.48	17.4	00	12.2%	00 00 00
3.49	17.4	00	12.2%	00 00 00
3.50	17.4	00	12.2%	00 00 00
3.51	17.4	00	12.2%	00 00 00
3.52	17.4	00	12.2%	00 00 00
3.53	17.4	00	12.2%	00 00 00
3.54	17.4	00	12.2%	00 00 00
3.55	17.4	00	12.2%	00 00 00
3.56	17.4	00	12.2%	00 00 00
3.57	17.4	00	12.2%	00 00 00
3.58	17.4	00	12.2%	00 00 00
3.59	17.4	00	12.2%	00 00 00
3.60	17.4	00	12.2%	00 00 00
3.61	17.4	00	12.2%	00 00 00
3.62	17.4	00	12.2%	00 00 00
3.63	17.4	00	12.2%	00 00 00
3.64	17.4	00	12.2%	00 00 00
3.65	17.4	00	12.2%	00 00 00
3.66	17.4	00	12.2%	00 00 00
3.67	17.4	00	12.2%	00 00 00
3.68	17.4	00	12.2%	00 00 00
3.69	17.4	00	12.2%	00 00 00
3.70	17.4	00	12.2%	00 00 00
3.71	17.4	00	12.2%	00 00 00
3.72	17.4	00	12.2%	00 00 00
3.73	17.4	00	12.2%	00 00 00
3.74	17.4	00	12.2%	00 00 00
3.75	17.4	00	12.2%	00 00 00
3.76	17.4	00	12.2%	00 00 00
3.77	17.4	00	12.2%	00 00 00
3.78	17.4	00	12.2%	00 00 00
3.79	17.4	00	12.2%	00 00 00
3.80	17.4	00	12.2%	00 00 00
3.81	17.4	00	12.2%	00 00 00
3.82	17.4	00	12.2%	00 00 00
3.83	17.4	00	12.2%	00 00 00
3.84	17.4	00	12.2%	00 00 00
3.85	17.4	00	12.2%	00 00 00
3.86	17.4	00	12.2%	00 00 00
3.87	17.4	00	12.2%	00 00 00
3.88	17.4	00	12.2%	00 00 00
3.89	17.4	00	12.2%	00 00 00
3.90	17.4	00	12.2%	00 00 00
3.91	17.4	00	12.2%	00 00 00
3.92	17.4	00	12.2%	00 00 00
3.93	17.4	00	12.2%	00 00 00
3.94	17.4	00	12.2%	00 00 00
3.95	17.4	00	12.2%	00 00 00
3.96	17.4	00	12.2%	00 00 00
3.97	17.4	00	12.2%	00 00 00
3.98	17.4	00	12.2%	00 00 00
3.99	17.4	00	12.2%	00 00 00
3.100	17.4	00	12.2%	00 00 00

LEG END	ACREAGE
3.1	17.4
3.2	17.4
3.3	17.4
3.4	17.4
3.5	17.4
3.6	17.4
3.7	17.4
3.8	17.4
3.9	17.4
3.10	17.4
3.11	17.4
3.12	17.4
3.13	17.4
3.14	17.4
3.15	17.4
3.16	17.4
3.17	17.4
3.18	17.4
3.19	17.4
3.20	17.4
3.21	17.4
3.22	17.4
3.23	17.4
3.24	17.4
3.25	17.4
3.26	17.4
3.27	17.4
3.28	17.4
3.29	17.4
3.30	17.4
3.31	17.4
3.32	17.4
3.33	17.4
3.34	17.4
3.35	17.4
3.36	17.4
3.37	17.4
3.38	17.4
3.39	17.4
3.40	17.4
3.41	17.4
3.42	17.4
3.43	17.4
3.44	17.4
3.45	17.4
3.46	17.4
3.47	17.4
3.48	17.4
3.49	17.4
3.50	17.4
3.51	17.4
3.52	17.4
3.53	17.4
3.54	17.4
3.55	17.4
3.56	17.4
3.57	17.4
3.58	17.4
3.59	17.4
3.60	17.4
3.61	17.4
3.62	17.4
3.63	17.4
3.64	17.4
3.65	17.4
3.66	17.4
3.67	17.4
3.68	17.4
3.69	17.4
3.70	17.4
3.71	17.4
3.72	17.4
3.73	17.4
3.74	17.4
3.75	17.4
3.76	17.4
3.77	17.4
3.78	17.4
3.79	17.4
3.80	17.4
3.81	17.4
3.82	17.4
3.83	17.4
3.84	17.4
3.85	17.4
3.86	17.4
3.87	17.4
3.88	17.4
3.89	17.4
3.90	17.4
3.91	17.4
3.92	17.4
3.93	17.4
3.94	17.4
3.95	17.4
3.96	17.4
3.97	17.4
3.98	17.4
3.99	17.4
3.100	17.4

FIGURE 10-3
Reduced Development Alternative C

Table 10-6 presents a tabulation of the proposed uses for the SPA Plan for this Alternative. This alternative would include two neighborhood parks, a park in Village Four, and a single two-lane spine road connecting La Media and Heritage Roads. There would be no development within Wolf Canyon under this alternative.

The following discussion identifies issues that differentiate the proposed project from the Reduced Development Alternative C.

Land Use

Development of Otay Ranch is based on the village concept, which plans for a Village Core with land uses that will meet the day-to-day needs of the village residents. The Village Core is required to have a mixed-use center that is pedestrian oriented and served by transit. The mixed-use center would have shops, schools, parks, and multi-family housing to support the other uses. The villages are to have a wide variety of housing types for all income levels. Multi-family housing is a key component to the village concept.

The Reduced Development Alternative C reduces the amount of multi-family dwelling units within the Village Core and does not provide the required multi-family housing to meet the projected housing needs or the commercial and public uses in the Village Core. The Reduced Development Alternative C would increase the number of units allowed under the existing GDP. Therefore, an amendment to the Chula Vista General Plan and the Otay Ranch GDP would be required to adjust the permissible number of units in Village Two.

Biological Resources

The direct impacts to sensitive biological resources under the Reduced Development Alternative C would be greater than the proposed project's. The current development footprint pursuant to the adopted Subarea Plan permits an impact to 0.98 acre of Otay tarplant, a narrow endemic species, containing 25,000 tarplants.

The project proposes a Boundary Adjustment to the City of Chula Vista Subarea Plan. The proposed Preserve Boundary Adjustment would provide a net benefit to conservation of Covered Species and habitats within the modified Preserve by inclusion of additional Tier I habitat, providing for higher biological value of the Preserve. The proposed Boundary Adjustment would also increase conservation of Otay tarplant, a listed plant species.

Housing and Population

The Reduced Development Alternative C would reduce the amount of housing available within the SPA Plan area by approximately 18.4 percent. This would reduce the ability of the City of Chula Vista to meet the projected need for an additional 20,823 dwelling units by 2010. The Reduced Development Alternative C would not be in conformance with those

**TABLE 10-6
REDUCED DEVELOPMENT ALTERNATIVE C
LAND USES WITHIN VILLAGE TWO AND A PORTION OF VILLAGE FOUR**

Neighborhood Area	Gross Acreage	Dwelling Units	Dwelling Units/Acre
Single-Family			
R-1	17.4	65	3.7
R-2	21.6	95	4.4
R-3	17.4	93	5.3
R-4	13.9	89	6.4
R-5	17.7	94	5.3
R-6	16.1	108	6.7
R-7	10.0	71	7.1
R-12	18.7	89	4.8
R-15	19.0	98	5.2
R-16	16.6	95	5.7
R-17	15.6	80	5.1
R-18	19.3	73	3.8
R-19	<u>29.5</u>	<u>80</u>	<u>2.7</u>
Subtotal	232.8	1,130	4.9
Multi-Family			
R-8	10.0	87	8.7
R-10	1.3	26	20.0
R-11	11.8	165	14.0
R-13	1.7	26	15.3
R-14	2.8	23	8.2
R-20	9.6	173	18.0
R-21	9.1	164	18.0
R-22	9.0	162	18.0
R-23	7.2	101	14.0
R-24	<u>24.0</u>	<u>336</u>	<u>14.0</u>
Subtotal	86.5	1,263	14.6
Industrial			
Ind-1	50.6	N/A	N/A
Ind-3	<u>28.0</u>	N/A	N/A
Subtotal	78.6	N/A	N/A
Community Purpose Facility			
CPF-1	0.8	N/A	N/A
CPF-2	0.8	N/A	N/A
CPF-3	5.9	N/A	N/A
CPF-4	<u>5.0</u>	N/A	N/A
Subtotal	12.5	N/A	N/A
Commercial			
C-1	<u>13.9</u>	N/A	N/A
Subtotal	13.9	N/A	N/A
Parks			
P-1	6.8	N/A	N/A
P-2	6.7	N/A	N/A
P-3*	<u>43.9</u>	N/A	N/A
Subtotal	57.4	N/A	N/A

**TABLE 10-6
 REDUCED DEVELOPMENT ALTERNATIVE
 LAND USES WITHIN VILLAGE TWO AND A PORTION OF VILLAGE FOUR
 (continued)**

Neighborhood Area	Gross Acreage	Dwelling Units	Dwelling Units/Acre
Schools			
S-1	10.0	N/A	N/A
Subtotal	10.0	N/A	N/A
Open Space	295.6	N/A	N/A
Streets	53.4	N/A	N/A
Subtotal	348.0	N/A	N/A
TOTAL	840.7	2,393	

*The approximate 44.6-acre portion of Village Four for the park site is included in Village Two.

**REDUCED DEVELOPMENT ALTERNATIVE C
 Land Uses within Village Three**

Use	Gross Acreage
Industrial	
IND-1	54.3
IND-2	41.7
IND-3	39.0
IND-4	23.3
IND-5	18.2
Open Space	140.3
Circulation	32.9
Community Purpose Facility	2.8
TOTAL	352.5

NOTE: Ind = Industrial; CPF = Community Purpose Facility;

policies as outlined in SANDAG's Growth Management Plan. The lack of housing concurrent with needs as shown in SANDAG forecasts and in the Growth Management Plan would result in a potentially significant impact.

Water Resources and Water Quality

The 100-year pre-development and post-development flow results of the detention facilities for the Reduced Development Alternative C are summarized in Table 10-7. The development under Reduced Development Alternative C would result in higher flows to the Poggi Canyon basin from the Village Two Northwest subbasin. An additional detention basin would be required for peak flow from the Village Two West area.

**TABLE 10-7
REDUCED DEVELOPMENT ALTERNATIVE C SUMMARY OF PEAK 100-YEAR FLOWS**

Location	Existing Condition 100-Year Peak Flow (cfs)	Developed Condition 100-Year Peak Outflow (cfs)*
Poggi Canyon Detention Basin Outflow	1,300	1,138
Wolf Canyon @ Otay River	181	161
Otay Valley Road Watershed	485	442

*After detention routing.

The proposed detention facilities in Poggi Canyon, Wolf Canyon and the Otay Valley Road watershed mitigate the 100-year peak flow rates below the pre-developed peak flow rates at the watershed outlet locations. The development of Reduced Development Alternative C would control the rate of on-site, post-development peak storm water runoff discharges. The Reduced Development Alternative C proposes significant grading modifications as compared to the proposed project. Under this alternative, a portion of Wolf Canyon, which is located in the MSCP preserve, would not be developed. As such, there would be a measurable reduction in the volume or quality of the runoff from the site.

Transportation, Circulation, and Access

The traffic generated by the Reduced Development Alternative C would be reduced when compared to the proposed project. The significant traffic impacts associated with implementation of the proposed SPA Plan would be reduced, but would not be avoided. Because the significant traffic impacts are cumulative, the traffic mitigation measures required for this alternative would be unchanged from those required of the proposed project.

Air Quality

As compared to the proposed project, air quality impacts associated with vehicular trips would be reduced under the implementation of the Reduced Development Alternative C.

Short-term air quality impacts associated with construction would be slightly reduced as the area and extent of grading would be reduced because the Reduced Development Alternative C would not expand development into Wolf Canyon. There could be a slight decrease in overall long-term air quality impacts associated with power generation and the operation of on-site commercial facilities due to the reduced population. Overall, the reduction in air quality impacts would be minor and the cumulative impact would remain significant and unavoidable.

Noise

The grading plan for the Reduced Development Alternative C would be very similar to the grading plan required for the proposed project. The proximity of future development to major roadways would remain unchanged. The mitigation measures for noise impacts to future development areas would also be expected to remain unchanged. Mitigation measures for noise impacts associated with construction would remain unchanged. The Reduced Development Alternative C, therefore, does not avoid or lessen noise impacts.

Public Services and Utilities

Potable Water

The projected potable water demand for the project area for the Reduced Development Alternative C is approximately 1.1 mgd. As with the proposed project, the development of this alternative can receive water service by expanding the existing 624 and 711 Zone water systems. However, as with the proposed project, the SDCWA, which supplies water to the SPA Plan area, relies in part on a water transfer with the Imperial Irrigation District and the agreement that provides for the water transfer is being challenged in court. In light of these cases, the assumption that the IID water transfer water will be available is questionable. Since the IID water transfer is being challenged, it is possible that the water from IID will not be available as anticipated. In the absence of this water a significant water supply impact would result.

Recycled Water

The projected recycled water demand for the Reduced Development Alternative C is 405,360 gpd. As with the proposed project, development of this alternative will be served by the 680 Zone recycled water system through connections to the 12-inch 680 recycled zone main in La Media Road and the 16-inch line in La Media Road.

Waste Generation

The SPA Plan area would be served by the Otay Landfill, which has adequate capacity to accommodate the waste generated by proposed project. The waste generated would be slightly less for the Reduced Development Alternative C than the proposed project.

Schools

Project implementation under the Reduced Development Alternative C would have a significant impact on schools. Development of this alternative is expected to generate approximately 1,391 students between elementary, middle school, and high school grades (Table 10-8).

**TABLE 10-8
STUDENT GENERATION RATES FOR THE REDUCED DEVELOPMENT ALTERNATIVE C**

Grade	Generation Rate Students/Unit	Students		Total Students Generated
		SF	MF	
K-6	SF=0.3485 MF=0.3164	394	400	794
7-8	SF=0.11 MF=0.063	124	80	204
9-12	SF=0.21 MF=0.095	273	120	393
Total Students Generated				1,391

SOURCE: Chula Vista Elementary School District; Sweetwater Union High School District.

SF=Single-family, MF=Multi-family.

As with the proposed project discussed above, the Reduced Development Alternative C would increase the number of elementary, middle, and high school students and significantly impact on the existing schools.

Library Services

Implementation of the Reduced Development Alternative C would result in increased demand on existing library services, including a need for approximately 3,590 square feet of library facilities based on the expected project population of people of 7,179. While this increased demand on library services was created by an expected population increase in Otay Ranch, library facilities do not need to be constructed in the area in which the demand was created. Therefore, as with the proposed project, a potentially significant impact to library services would result if new library facilities are not constructed within Chula Vista.

Police and Fire Protection and Emergency Medical Services

Impacts associated with implementation of the Reduced Development Alternative C would be similar for Police and Fire Protection and Emergency Medical Services when compared to the proposed project. No additional impacts are anticipated with implementation of this alternative.

Hazards/Risk of Upset

The hazards/risk of upset impacts would be reduced slightly under the Reduced Development Alternative C, in accordance with the reduced population at buildout and no development within Wolf Canyon. There would be little change overall in the severity of this less than significant impact.

Cultural

As a result of development the Reduced Development Alternative C in the Village Three portion of the property, significant impacts to CA-SDI-12,291b would be avoided. Therefore, as a result of the Reduced Development Alternative C in Village Two and Village Four, no significant impact would result to cultural resources.

Project Objectives

The Reduced Development Alternative C would implement some of the project objectives of the proposed project; however, the following objectives would not be met with this alternative:

- Establish a pedestrian and transit-oriented village with an intense urban core to reduce reliance on the automobile and promote walking and the use of bicycles, buses, and regional transit.
- Implement the goals, objectives, and policies of the adopted Chula Vista General Plan, and particularly, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan. ~~Establish a pedestrian-oriented village with an intense urban core to reduce reliance on the automobile and promote walking, and use of bicycles, buses, and regional transit.~~
- Establish a land use and facility plan that assures the viability of the SPA Plan area in consideration of existing and anticipated economic conditions.
- Wisely manage limited natural resources.

The Reduced Development Alternative C would reduce some of the environmental effects associated with the project while implementing some, but not all of the project objectives.

10.5 Environmentally Superior Alternative

As required under Section 15126.6 (e)(2) of the CEQA Guidelines, the EIR must identify the environmentally superior alternative. Pursuant to the CEQA Guidelines, if the No Project Alternative is determined to be the most environmentally superior project, then another alternative among the alternatives evaluated must be identified as the environmentally superior project.

Table 10-9 provides a comparison of the proposed project to each of the alternatives. This table indicates whether impacts resulting from each alternative are less than, equal to, or more than the proposed project.

The environmental analysis of alternatives presented above and summarized in Table 10-9 indicates through a comparison of potential impacts from each of the proposed alternatives and the proposed project that the No Development/No Project Alternative would be considered the environmentally superior alternative because no new impacts would be introduced to the area and the project site. However, the No Development/No Project Alternative would not implement the City's General Plan, the Otay Ranch GDP, or the RMP. Under the No Development/No Project Alternative, the project site would remain as undeveloped, agricultural land. This alternative would not accomplish any of the objectives of the project.

The Reduced Project Alternative A could be considered the environmentally superior project because it would reduce impacts associated with land use, visual quality/landform alteration, cultural resources, traffic, air quality, noise, utilities and services, and water quality while implementing some of the project objectives. The project objectives are enumerated in Section 3.3 of this EIR.

**TABLE 10-9
COMPARISON OF PROJECT ALTERNATIVES**

Environmental Issue	Proposed Project	No Project/No Development Alternative	Reduced Development Alternative A	Reduced Development Alternative B	Reduced Development Alternative C
Land Use					
Development of the SPA Plan and Composite TM would change the quality of the site from undeveloped to urban uses	Significant impact unmitigable	Less	Equal	Equal	Equal
Landform Alteration/Aesthetics					
Implementation of the SPA Plan and Composite TM would change the visual character of the site from undeveloped to urban uses resulting in a significant, unavoidable landform and aesthetic impact.	Significant impact unmitigable	Less	Equal	Equal	Equal
Grading of the site would permanently alter the natural landform of the site which would be significant. The filling of Wolf Canyon and the related slope are considered significant landform alteration impacts.	Significant impact unmitigable	Less	Equal	Equal	Equal
The direct line of sight of the lighting from the off-site high school athletic field and the general illumination over the existing high school stadium and illumination from the proposed community park would also have long-term direct and indirect potentially significant nighttime impacts.	Less than significant with mitigation.	Less	Equal	Equal	Equal
Sound barriers built as part of the project would represent a significant visual impact if the portion of the barrier that is constructed as a wall is higher than eight feet.	Potentially significant	Less	Equal	Equal	Equal

**TABLE 10-9
COMPARISON OF PROJECT ALTERNATIVES
(continued)**

Environmental Issue	Proposed Project	No Project/No Development Alternative	Reduced Development Alternative A	Reduced Development Alternative B	Reduced Development Alternative C
Biological Resources					
The project would have a substantial adverse effect, both directly and through habitat modifications, on species identified as candidate, sensitive, and special status species in the Otay Ranch RMP, the City's Subarea Plan, and by CDFG and USFWS.	Less than significant with mitigation	Less	More	More	More
The project would have a substantial adverse effect on riparian habitats and other sensitive natural communities identified in the Otay Ranch RMP, the City's Subarea Plan, and by CDFG and USFWS.	Less than significant with mitigation	Less	More	More	More
The project would have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act, including jurisdictional waters and vernal pools	Less than significant with mitigation	Less	More	More	More
The project will result in impacts to non-native grasslands and agricultural lands that would contribute to impacts to regional raptor foraging habitat.	Significant and unmitigable impacts	Less	More	More	More
Cultural Resources					
The proposed project could result in significant archaeological impacts because the site may contain masked subsurface deposits that may be encountered during grading and excavation activities for the proposed project. In addition, SDI-12,291B, was determined to be a significant historic resource and impacts to this site would be considered significant.	Less than significant with mitigation	Less	Less	Less	Less
Paleontological Resources					
Grading in the Otay, Sweetwater, or San Diego Formations, or in the Terrace Deposits would potentially impact paleontological resources due to the high or moderate resource potential in those formations/deposits.	Less than significant with mitigation	Less	Equal	Equal	Equal

**TABLE 10-9
COMPARISON OF PROJECT ALTERNATIVES
(continued)**

Environmental Issue	Proposed Project	No Project/No Development Alternative	Reduced Development Alternative A	Reduced Development Alternative B	Reduced Development Alternative C
Geology and Soils					
Significant impacts to geology and soils could result from project development on compressible and expansive soils. Additionally, the current conceptual design would require mass grading above portions of the tunnel that contains the San Diego waterline, including excavation of formational soils and the placement of fill soils, resulting in a potentially significant impact	Less than significant with mitigation	Less	Equal	Equal	Equal
Agricultural Resources					
Development of the SPA Plan and the Composite TM would result in a significant impact to agricultural resources, due to the loss of 858.8 acres of Farmland of Local Importance and the conversion of 321.72 acres of Grazing Land to urban uses.	Significant impact unmitigable	Less	Equal	Equal	Equal
Noise, odors, insects, rodents, and chemicals associated with agricultural operations would create indirect, short-term, potentially significant impacts between the agricultural uses and urban uses	Less than significant with mitigation	Less	Equal	Equal	Equal
Housing and Population					
The Otay Ranch GDP planned for the development of the SPA Plan area as well as corresponding services and infrastructure to support the community. The 0.1 percent population increase would not result in a substantial change, therefore, it does not represent substantial population growth or a significant direct impact on the environment.	Less than significant	Less	Less	Less	Less

**TABLE 10-9
COMPARISON OF PROJECT ALTERNATIVES
(continued)**

Environmental Issue	Proposed Project	No Project/No Development Alternative	Reduced Development Alternative A	Reduced Development Alternative B	Reduced Development Alternative C
Water Resources/Water Quality					
Implementation of the SPA Plan and Composite TM would introduce impermeable surfaces to the project site, as well as new pollutant sources, such as automobiles and household products, which would decrease the amount of infiltration occurring at the project site and would lead to increased runoff rates and the potential for pollutants to be introduced to water sources.	Less than significant with mitigation	Less	Less	Less	Less
Transportation, Circulation, and Access					
Significant cumulative impacts are calculated on I-805. In addition, access-related impacts would occur if appropriate lane configurations are not provided at the project driveways.	Significant impact unmitigable	Less	Equal	Less	Less
Future traffic at the Rock Mountain Road/La Media Road intersection would result in significant impacts.	Less than significant with mitigation	Less	Less	Less	Less
Air Quality					
The proposed SPA Plan project is not consistent with the growth projections of the local regional air quality plan. This is considered a significant impact.	Significant impact unmitigable	Less	Less	Less	Less
The proposed project will result in a cumulatively significant long-term contribution to regional PM ₁₀ and ozone levels as a result of projected emissions of ROG, an ozone precursor.	Significant impact unmitigable	Less	Less	Less	Less
The proposed project will also result in a short-term significant fugitive dust impact as a result of emissions stemming from construction.	Less than significant with mitigation	Less	Less	Less	Less
Noise					
Traffic on area streets has the potential to generate noise levels greater than the City's residential exterior standard of 65 CNEL at ground-level sensitive receptors within the SPA Plan area.	Less than significant with mitigation	Less	Equal	Equal	Equal

**TABLE 10-9
COMPARISON OF PROJECT ALTERNATIVES
(continued)**

Environmental Issue	Proposed Project	No Project/No Development Alternative	Reduced Development Alternative A	Reduced Development Alternative B	Reduced Development Alternative C
Noise (cont.)					
Exterior noise levels at receivers 2 through 8 in Village 2 are projected to exceed the City's residential exterior standard 65 CNEL.	Less than significant with mitigation	Less	Equal	Equal	Equal
Noise levels may exceed standards for the residential zone to the south of the park as a result of active uses within the park.	Less than significant with mitigation	Less	Equal	Equal	Equal
Noise levels produced on the industrial properties have the potential to affect adjacent residential uses and adjacent wildlife.	Less than significant with mitigation	Less	Equal	Equal	Equal
Public Services and Utilities					
Potable Water					
The proposed SPA Plan would result in an incremental increase in water consumption and place additional demands on water storage and pumping facilities. The impact to water storage and pumping facilities would be significant if construction of facilities does not coincide with the anticipated growth associated with the SPA Plan.	Impacts reduced with mitigation but not to below a level of significance	Less	Equal	Equal	Equal
Recycled Water					
Impacts to recycled water storage and distribution facilities would be significant if construction of new facilities does not coincide with the development phasing of the proposed SPA Plan outlines in the project's PFFP.	Less than significant with mitigation	Less	Equal	Equal	Equal
Sewer					
Significant impacts would result if the southerly portion of Village Two and Village Three were developed prior to the completion of the Heritage Road sewer line and connection to the Wolf Canyon/Salt Creek Interceptor	Less than significant with mitigation	Less	Equal	Equal	Equal

**TABLE 10-9
COMPARISON OF PROJECT ALTERNATIVES
(continued)**

Environmental Issue	Proposed Project	No Project/No Development Alternative	Reduced Development Alternative A	Reduced Development Alternative B	Reduced Development Alternative C
Public Services and Utilities (cont.)					
<i>Law Enforcement</i>	Less than significant with mitigation	Less	Equal	Equal	Equal
Development of the proposed SPA Plan and the Composite TM would result in a significant impact to law enforcement because of the predicted increase in calls for service and the additional travel time required to respond to these calls.					
<i>Fire Protection and Emergency Medical Services</i>	Less than significant with mitigation	Less	Equal	Equal	Equal
The Chula Vista Fire Department does not currently meet the threshold standard for response time for the City, including the Otay Ranch community. Significant impacts could result if new facilities are not provided concurrent with need.					
<i>Schools</i>	Less than significant with mitigation	Less	Less	Less	Less
Project implementation would result in a significant impact to schools unless construction of facilities coincide with student generation and associated service demands.					
<i>Library Facilities</i>	Less than significant with mitigation	Less	Less	Less	Less
Implementation of the proposed SPA Plan project and Composite TM would result in an estimated population increase of 8,458 people which corresponds to an increased library demand of 4,250 square feet. Potentially significant impacts could occur if construction of new library facilities and provision of additional documents does not coincide with project implementation and associated population growth.					

**TABLE 10-9
COMPARISON OF PROJECT ALTERNATIVES
(continued)**

Environmental Issue	Proposed Project	No Project/No Development Alternative	Reduced Development Alternative A	Reduced Development Alternative B	Reduced Development Alternative C
Public Services and Utilities (cont.)					
<i>Parks and Recreation Facilities</i>					
Implementation of the proposed SPA Plan and the Composite TM would generate increased demand for parks and recreation facilities. A potentially significant impact could result if dedication of parkland and construction of new facilities does not coincide with project implementation and project population growth.	Less than significant with mitigation	Less	Less	Less	Less
Hazards/Risk of Upset					
On Village Three there is a potential for agriculturally developed portions of the subject property to be impacted by residual agricultural, including soil augmenting and chemicals.	Less than significant with mitigation	Less	Less	Less	Less
Elevated levels of organochlorine pesticides were present in the soils at the Village Four Community Park site, which would be considered a significant risk to public safety.	Less than significant with mitigation	Less	Equal	Equal	Less

11.0 REFERENCES CITED

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12.0 EIR PREPARATION

This environmental impact report was prepared by the City of Chula Vista. The City was assisted by RECON, located at 1927 Fifth Avenue, San Diego, California 92101. The following professional staff participated in the preparation of the EIR:

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13.0 PERSONS AND ORGANIZATIONS CONTACTED

Public Agencies

Otay Water District
Chula Vista Unified Elementary School District
Sweetwater Union High School District

Organizations and Individuals

Otay Ranch Company
Geotechnics Incorporated
Dexter Wilson Engineering, Inc.
Geocon Incorporated
Hunsaker & Associates
Dudek & Associates
Linscott Law & Greenspan
URS

Appendixes are bound under separate cover.

**OTAY RANCH VILLAGES TWO, THREE, AND A PORTION OF VILLAGE FOUR
SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM**

Introduction

This mitigation monitoring reporting program (MMRP) was prepared for the City of Chula Vista for the Otay Ranch Villages Two, Three, and a portion of Village Four Sectional Planning Area (SPA) Plan to comply with Public Resources Code section 21081.6, which requires public agencies to adopt such programs to ensure effective implementation of mitigation measures. This monitoring program is dynamic in that it will undergo changes as additional mitigation measures are identified and additional conditions of approval are placed on the project throughout the project approval process. Pursuant to Public Resources Code section 21081.6(a)(2), the City of Chula Vista designates the Environmental Review Coordinator and the City Clerk as the custodians of the documents or their material which constitute the record of proceedings upon which its decision is based.

This monitoring program will serve a dual purpose of verifying completion of the mitigation measures for the proposed project and generating information on the effectiveness of the mitigation measures to guide future decisions. The program includes the following:

- Monitoring team qualifications
- Specific monitoring activities
- Reporting system
- Criteria for evaluating the success of the mitigation measures

The proposed project is the adoption of a Sectional Planning Area (SPA) Plan for Villages Two, Three, and a portion of Village Four SPA of the Otay Ranch General Development Plan (GDP). It also includes an evaluation of Tentative Maps for development within Village Two and the park in a portion of Village Four, which have been incorporated into one Composite Tentative Map.

There are currently four land owners within the SPA Plan boundary: (1) the Otay Project, L.P.; (2) the Stephen and Mary Birch Foundation; (3) Otay Ranch Investments, LLC, and (4) the Flat Rock Company. The ownership boundaries are shown on Figure 1-1. The Composite Tentative Map for Village Two and the proposed park within

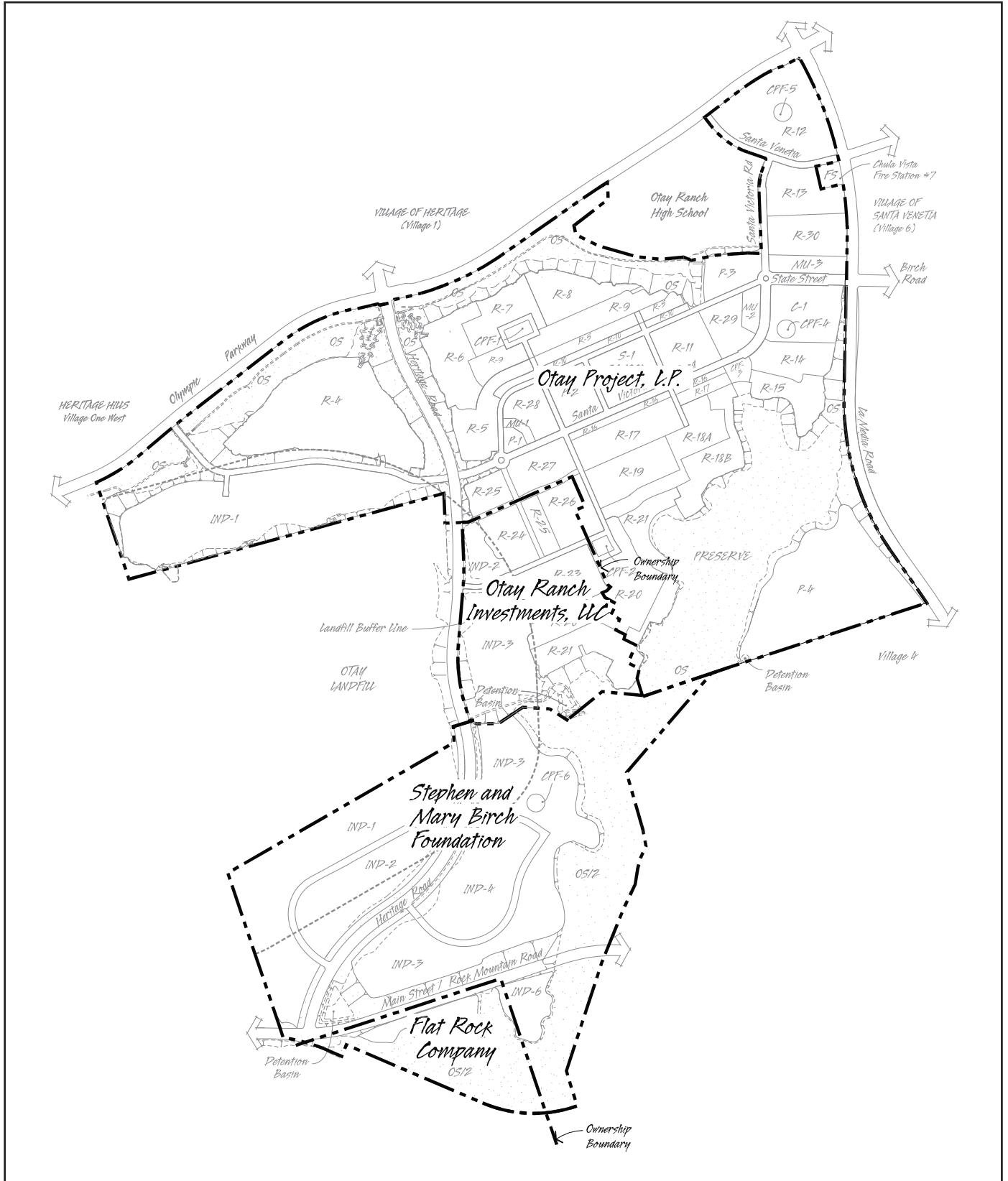


FIGURE 1-1
Property Ownership

Village Four encompasses property currently owned by the Otay Project, L.P. and the Otay Ranch Investments, LLC.

The SPA Plan area is defined by the Otay Ranch General Development Plan/Subregional Plan (GDP/SRP) as an Urban Village, planned for transit-oriented development. The proposed SPA Plan proposes the development of 2,786 dwelling units (986 single-family and 1,800 multi-family units) on approximately 335.1 acres and three industrial areas on 87.9 acres within Village Two and a 176.5-acre business park within Village Three. Village Four contains a 44.2-acre community park site. The remaining acres would be developed with non-residential uses, including community purpose facilities, schools, public parks, commercial uses, open space, two pedestrian bridges, and circulation rights-of-way.

The proposed project would require an amendment to the City of Chula Vista General Plan, the Otay Ranch GDP, the Phase 1 and 2 Resource Management Plan (RMP), a Chula Vista MSCP Subarea Plan Boundary Adjustment, and an amendment to the County of San Diego Otay Subregional Plan (SRP) and County adopted RMP Preserve Conveyance Plan.

The proposed amendment to the Otay Ranch GDP, Chula Vista General Plan, and adopting the SPA Plan are described in the Environmental Impact Report (EIR) text.

The EIR, incorporated herein as referenced, focused on issues determined to be potentially significant by the City of Chula Vista. The issues addressed in the EIR include land use, traffic circulation and access, biological resources, landform alteration/aesthetics, water resources and water quality, geology and soils, noise, air quality, housing and population, agriculture, cultural resources, paleontological resources, hazards/risk of upset, and public services and utilities. The environmental analysis concluded that for all of the environmental issues discussed, some of the significant and potentially significant impacts could be avoided or reduced through implementation of recommended mitigation measures. Potentially significant impacts requiring mitigation were identified for traffic circulation and access, water resources and water quality, geology and soils, agriculture, landform alteration/aesthetics, noise, air quality, cultural resources, paleontological resources, hazards/risk of upset, and public services and utilities.

Public Resources Code section 21081.6 requires monitoring of only those impacts identified as significant or potentially significant. The monitoring program for the Village Two, Three, and a portion of Village Four SPA Plan therefore addresses the impacts associated with only the issue areas identified above.

The monitoring activities would be accomplished by individuals identified in the attached MMRP table. While specific qualifications should be determined by the City of Chula Vista, the monitoring team should possess the following capabilities:

- Interpersonal, decision-making, and management skills with demonstrated experience in working under trying field circumstances;
- Knowledge of and appreciation for the general environmental attributes and special features found in the project area;
- Knowledge of the types of environmental impacts associated with construction of cost-effective mitigation options; and
- Excellent communication skills.

Program Procedural Guidelines

Prior to any construction activities, meetings should take place between all the parties involved to initiate the monitoring program and establish the responsibility and authority of the participants. Mitigation measures that need to be defined in greater detail will be addressed prior to any project plan approvals in follow-up meetings designed to discuss specific monitoring effects.

An effective reporting system must be established prior to any monitoring efforts. All parties involved must have a clear understanding of the mitigation measures as adopted and these mitigations must be distributed to the participants of the monitoring effort. Those that would have a complete list of all the mitigation measures adopted by the City of Chula Vista would include the City of Chula Vista and its Mitigation Monitor. The Mitigation Monitor would distribute to each Environmental Specialist and Environmental Monitor a specific list of mitigation measures that pertain to his or her monitoring tasks and the appropriate time frame that these mitigations are anticipated to be implemented.

In addition to the list of mitigation measures, the monitors will have mitigation monitoring report (MMR) forms, with each mitigation measure written out on the top of the form. Below the stated mitigation measure, the form will have a series of questions addressing the effectiveness of the mitigation measure. The monitors shall complete the MMR and file it with the Mitigation Monitor following the monitoring activity. The Mitigation Monitor will then include the conclusions of the MMR into an interim and final comprehensive construction report to be submitted to the City of Chula Vista. This report will describe the major accomplishments of the monitoring program, summarize problems encountered in achieving the goals of the program, evaluate solutions developed to overcome problems, and provide a list of recommendations for future monitoring programs. In addition, and if appropriate, each Environmental Monitor or Environmental Specialist will be required to fill out and submit a daily log report to the Mitigation

Monitor. The daily log report will be used to record and account for the monitoring activities of the monitor. Weekly and/or monthly status reports, as determined appropriate, will be generated from the daily logs and compliance reports and will include supplemental material (i.e., memoranda, telephone logs, and letters). This type of feedback is essential for the City of Chula Vista to confirm the implementation and effectiveness of the mitigation measures imposed on the project.

Actions in Case of Noncompliance

There are generally three separate categories of noncompliance associated with the adopted conditions of approval:

- Noncompliance requiring an immediate halt to a specific task or piece of equipment;
- Infraction that warrants an immediate corrective action but does not result in work or task delay; and
- Infraction that does not warrant immediate corrective action and results in no work or task delay.

There are a number of options the City of Chula Vista may use to enforce this program should noncompliance continue. Some methods commonly used by other lead agencies include “stop work” orders, fines and penalties (civil), restitution, permit revocations, citations, and injunctions. It is essential that all parties involved in the program understand the authority and responsibility of the on-site monitors. Decisions regarding actions in case of noncompliance are the responsibility of the City of Chula Vista.

SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

The following table summarizes the potentially significant project impacts and lists the associated mitigation measures and the monitoring efforts necessary to ensure that the measures are properly implemented. All the mitigation measures identified in the EIR are recommended as conditions of project approval and are stated herein in language appropriate for such conditions. In addition, once the Otay Ranch Villages Two, Three, and a portion of Village Four SPA Plan has been approved, and during various stages of implementation, the designated monitors and the City of Chula Vista will further refine the mitigation measures.

**VILLAGES TWO, THREE, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN AND COMPOSITE TM
MITIGATION MONITORING REPORTING PROGRAM**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
LANDFORM/ALTERATION AND AESTHETICS									
Development of the project site would change the view of the site from an undeveloped area used for agricultural activities to an urban area.	5.2-1 Prior to approval of grading plans, the applicant(s) shall prepare grading and building plans that conform to the landform grading guidelines contained in the proposed SPA Plan, the City's Grading Ordinance, Otay Ranch GDP, and General Plan. The plans shall be prepared to the satisfaction of the Director of Planning and Building and the City Engineer.	ALL	ALL						
The proposed project would result in long-term direct potentially significant nighttime view impacts. The direct lines of sight to the field lighting and the general illumination over the stadium and baseball field would also have long-term direct and indirect potentially significant nighttime impacts.	5.2-2 Prior to approval of the site-specific master plan for the community park in Village Four, the applicant(s) shall provide funding through the payment of PAD fees for the preparation of a lighting plan that shows the proposed height, location, and intensity of sport field and court lighting on-site. Current sport facility lighting technologies including reflector devices that serve to reduce the occurrence of light spill and glare shall be used where appropriate. The plan shall be completed to the satisfaction of the Director of Planning and Building and Director of General Services.	OP	OP		CCV				

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TM: tentative map

Pre Const: pre-construction

During Const: during construction

Post Const: post-construction

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**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
<p>Potential Significant Impact</p> <p>LANDFORM/ALTERATION AND AESTHETICS (cont.)</p> <p>5.2-3 Potentially significant visual impacts from public areas include Olympic Parkway, La Media Road, Heritage Road, and the proposed Community Park in Village Four.</p>	<p>Mitigation Measure</p> <p>5.2-3 Prior to the approval of the first rough grading permit, or first B-map, the applicant(s) shall have prepared, submitted to and received approval from the Director of General Services of a comprehensive Landscape Master Plan (LMP). Landscaping shall occur with each phase of development in accordance with the LMP. The contents of the LMP shall conform to the City staff checklist and include the following major components:</p> <ul style="list-style-type: none"> a. Maintenance Responsibility Plan b. Master Irrigation Plan c. Master Planting Plan d. Brush Management Plan e. Hardscape Concept and Trail Plan f. Utility Coordination Plan g. Conceptual Wall and Fence Plan, and h. Monumentation and Signage Plan 	ALL	ALL						

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**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
<p>BIOLOGICAL RESOURCES</p> <p>The project would have a substantial adverse effect, both directly and through habitat modifications, on species identified as candidate, sensitive, and special status species in the Otay Ranch RMP, the City's MSCP Subarea Plan, and by CDFG and USFWS. The project would have a substantial adverse effect on riparian habitats and other sensitive natural communities identified in the Otay Ranch RMP, the City's MSCP Subarea Plan, and by CDFG and USFWS.</p> <p>The project will result in impacts to non-native grasslands and agricultural lands that would contribute to impacts to regional raptor foraging habitat.</p>	<p>5.3-1 Prior to recording each final map, the property owner(s) shall either convey land within the Otay Ranch RMP Resource Preserve at a ratio of 1.188 acres for each acre of development area or pay a fee in lieu.</p> <p>5.3-2 Prior to issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable resources, including Narrow Endemic Species, <i>Plantago erecta</i> (QCB larval host plant), south coast saltscale and smooth-stemmed fagonia (including plant materials and soils/seed bank), the project property owner (s) shall be required to develop and implement a Resource Salvage Plan. The Resource Salvage Plan shall, at a minimum, evaluate options for plant salvage and relocation, including native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the preserve. The Resource Salvage Plan shall include incorporation of relocation efforts for non-covered species, including south coast saltscale and smooth-stemmed fagonia.</p>	ALL	ALL	ALL					

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
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BIOLOGICAL RESOURCES (cont.)									
	Relocation efforts may include seed collection or transplantation to a suitable receptor site and will be based on the most reliable methods of successful relocation. The program shall also contain a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success. The program shall include, but not be limited to, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. The program shall be subject to review and approval of the City's Director of Planning and Building.								
5.3-3	Pursuant to the requirements of the RMP, mitigation beyond the conveyance requirements for impacts to maritime succulent scrub shall consist of on-site restoration at 1:1 ratio. If final design plans indicate that impacts will be avoided, this measure will not be applicable. Prior to issuance	OR/ FRC							
		OR/ FRC							

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**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)	of land development permits, including clearing or grubbing and grading permits, that impact maritime succulent scrub resources, the developer(s) shall prepare and implement a restoration plan to restore 3.4 acres of maritime succulent scrub (1.5 acres from impacts within the Otay Ranch Company ownership and 1.9 acres within the Flat Rock Land Company ownership), pursuant to the Otay Ranch RMP restoration requirements. The maritime succulent scrub restoration plan shall be approved by the City's Director of Planning and Building, and shall include an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures.								

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**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)									
5.3-4	<p>Prior to issuance of land development permits, including clearing or grubbing and grading permits, in portions of the SPA Plan area that are adjacent to the Preserve, the property owner shall install fencing in accordance with CVMC 17.35.030.</p> <p>Prominently colored, well-installed fencing shall be in place wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary and permanent fencing shall be shown on grading plans. Prior to release of grading bonds, a qualified biologist shall provide evidence that work was conducted as authorized under the approved land development permit and associated plans.</p>	ALL	ALL						
			ALL		CCV				
			ALL		CCV				

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)									
5.3-5	<p>Prior to issuance of grading permits, a Storm Water Pollution Prevention Plan (SWPPP) shall be developed, approved, and implemented during construction to control storm water runoff, such that erosion, sedimentation, pollution, etc. are minimized. The following measures contained in the Edge Plans shall be implemented to avoid the release of toxic substances associated with urban runoff:</p> <ul style="list-style-type: none"> • Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures. • Where deemed necessary, storm drains shall be equipped with silt and oil traps to remove oils, debris and other pollutants. Storm drain inlets shall be labeled "No Dumping-Drains to Ocean." Storm drains shall be regularly maintained to ensure their effectiveness. 	ALL	ALL						

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)	<ul style="list-style-type: none"> The parking lots shall be designed to allow storm water runoff to be directed to vegetative filter strips and/or oil-water separators to control sediment, oil, and other contaminants. Permanent energy dissipaters shall be included for drainage outlets. The SPA Plan area drainage basins shall be designed to provide effective water quality control measures. Design and operational features of the drainage basins shall include design features to provide maximum detention time for settling of fine particles; maximize the distance between basin inlets and outlets to reduce velocities; and establish maintenance schedules for periodic removal of sedimentation, excessive vegetation and debris. 								

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
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BIOLOGICAL RESOURCES (cont.)									
5.3.6	<p>Prior to issuance of land development permits, including clearing or grubbing and grading permits, the following notes shall be included on the plans to the satisfaction of the Environmental Review Coordinator:</p> <p>(1) A qualified biologist shall be on-site to monitor all vegetation clearing and periodically thereafter to ensure implementation of appropriate resource protection measures.</p> <p>(2) Dewatering shall be conducted in accordance with standard regulations of the RWQCB. A permit to discharge water from dewatering activities will be required. This will minimize erosion, siltation, and pollution within sensitive communities.</p> <p>(3) During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect sensitive vegetation from being inundated with sediment-laden runoff.</p> <p>(4) Material stockpiles shall be covered when not in use. This will prevent fly-off that could damage nearby sensitive vegetation communities.</p> <p>(5) Graded area shall be periodically watered to minimize dust affecting adjacent vegetation.</p>	ALL	ALL		CCV				

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)									
5.3-7	Lighting of all developed areas adjacent to the Preserve shall be directed away from the Preserve, wherever feasible and consistent with public safety. Where necessary, development shall provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the Preserve and sensitive species from night lighting. Consideration shall be given to the use of low-pressure sodium lighting. In compliance with the Chula Vista MSCP Subarea Plan, all lighting shall be shielded and directed away from the Preserve. Prior to issuance of improvement plans, a lighting plan and photometric analysis shall be submitted to the City's Environmental review Coordinator for review and approval. The lighting plan shall illustrate the location of the proposed lighting standards and type of shielding measures. Low-pressure sodium lighting shall be used if feasible and shall be subject to the approval of the City's Environmental Review Coordinator and City Engineer. No night-time construction lighting shall occur within the Preserve Edge.			ALL	ALL				
					CCV				

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)									
5.3-8	Noise impacts adjacent to the Preserve lands shall be minimized. Berms or walls shall be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve. Construction activities shall include noise reduction measures or be conducted outside the breeding season of sensitive bird species. Based on current information, these conditions would be limited to areas within 500 feet of Wolf Canyon. When clearing, grading or grubbing activities occur during the breeding season for coastal California gnatcatcher (February 15 to August 15, annually) or raptors (January 15 to July 31, annually), nesting bird surveys shall be conducted by a qualified biologist to identify active nest locations. Construction activities shall be restricted such that noise levels related to those activities are below 60 average sound level (L _{eq}) at the location of the active nest site.			ALL	ALL				
					CCV				

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)									
5.3-9	<p>Prior to issuance of land development permits, including clearing or grubbing and grading permits, the property owner shall submit evidence showing that the following features of the Preserve Edge Plan have been incorporated into grading and landscaping plans:</p> <p>(1) No invasive, non-native plant species shall be introduced into areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve shall be planted with native species per the Preserve Edge Plan, that reflect the adjacent native habitat.</p> <p>(2) All fuel modification shall be incorporated into development plans and shall not include any areas within the Preserve.</p>	ALL	ALL	ALL	CCV				
5.3-10	<p>Prior to issuance of grading permits, the property owner shall submit wall and fence plans depicting appropriate barriers to prevent unauthorized access into the Preserve. The wall and fence plans shall illustrate the locations and cross-sections of proposed walls and fences along the Preserve boundary, subject to the approval the City's Director of Planning and Building.</p>	ALL	ALL	ALL	CCV				

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
<p>BIOLOGICAL RESOURCES (cont.)</p> <p>The project would have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act, including jurisdictional waters and vernal pools.</p>	<p>5.3-11 The City requires that impacts to wetlands be avoided to the maximum extent possible. When avoidance is not feasible, the property owner(s) shall be required to minimize impacts to the greatest extent possible and mitigate for loss of wetland habitat, including wetland habitat creation of at a 1:1 ratio for unvegetated waters of the U.S. and 3:1 for impacts to alluvial scrub. To mitigate direct impacts to jurisdictional waters, the following conditions would be required prior to issuance of land development permits, including clearing or grubbing and grading permits, for any area impacting jurisdictional waters:</p>	ALL	ALL		ALL				

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**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)	<ul style="list-style-type: none"> A total of 1.1 acres of wetlands shall be created Prior to issuance of land development permits, including clearing or grubbing and grading permits that impact jurisdictional waters, the developer(s) shall prepare a Wetlands Mitigation Plan to the satisfaction of the wetland resource agencies and the City's Director of Planning and Building. This plan shall include, but not be limited to, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. Prior to issuance of land development permits, including clearing or grubbing and grading permits for areas that impact jurisdictional waters, the property owner shall provide evidence that all required regulatory permits, such as those required under Section 404 of the federal Clean Water Act, Section 1600 of the California Fish and Game Code, and the Porter Cologne Water Quality Act. 								

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)									
5.3-12	<p>One of the following options shall be implemented by the property owner(s) prior to issuance of land development permits, including clearing or grubbing and grading permits for areas impacting vernal pools:</p> <p>Option #1: The property owner(s) shall restore 406 square feet of vernal pools within the J23, 24 or 25 pools (eastern Otay Mesa) or within the Village 13 (resort) planning area. The restoration would involve reconfiguration and reconstruction of the mounds and basins, removal of weedy vegetation, revegetation of the mounds with upland sage scrub species and inoculation of the pools with vernal pool species. The property owner shall prepare a Vernal Pool Mitigation Plan to the satisfaction of the resource agencies (if applicable/jurisdictional) and the City's Director of Planning and Building. The Plan shall include, but not be limited to an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures.</p>	ALL	ALL	ALL	ALL	CCV			

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
BIOLOGICAL RESOURCES (cont.)									
	(2) Option #2: The project property owner(s) shall purchase vernal pool mitigation bank credits within an approved mitigation bank. Evidence of the purchase and appropriate monitoring and maintenance requirements shall be provided to the Director of Planning and Building.								
CULTURAL RESOURCES									
Impacts to the recorded sites on the property are considered significant. SDI-12,291 will be impacted by implementation of the proposed SPA Plan during grading and construction activities. As a result, significant impacts to this site will occur.	Preservation is the preferred means of avoiding impacts to archaeological site SDI-12,291b. This approach would involve redesign of the project to avoid impacts to Site SD-12,291b. In the event that preservation on-site is infeasible, the following measures outline a procedure for ensuring that adverse impacts are avoided for the proposed SPA Plan.								
5.4-1	In the event that in place preservation is infeasible, the following data recovery program will mitigate adverse impacts to SDI-12,291b. These tasks need to be completed prior to the issuance of grading permits for the portion of Village Three on which the site is located.		SMBF		CCV				

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**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
CULTURAL RESOURCES (cont.)	<p>a) Prior to the issuance of grading permits, a Registered Professional Archaeologist (RPA) shall prepare a research design for the data recovery of Site SDI-12,291b to the satisfaction of the Environmental Review Coordinator. This research design shall identify specific research questions to be addressed through the data recovery process, the data collection and analyses needed to address those questions, and the means and location of curation of recovered materials. This research design shall be prepared prior to the initiation of the field investigation to the satisfaction of the Environmental Review Coordinator of the City of Chula Vista.</p>								

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
CULTURAL RESOURCES (cont.)	<p>b) Based on the approved research design, an excavation program shall be implemented that will result in a reliable sample of the site. It is anticipated that between two and four percent of the surface area of the mapped resource would be excavated, and that excavation would be completed by hand excavated one-by-one meter units, unless the questions developed for the research design require a modified sampling strategy. All materials should be passed through a one-eighth-inch mesh screen, with all recovered materials catalogued and analyzed. If datable materials, faunal or floral remains, pollen, or other cultural significant materials are found, appropriate special analysis shall be completed.</p>								

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**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
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CULTURAL RESOURCES (cont.)	c) A detailed report of findings shall be completed and the results made available to the public and scientific community. Curation of recovered materials shall be accomplished to the satisfaction of the Environmental Review Coordinator of the City of Chula Vista. Curation of collections from the project will be curated in a facility approved in advance by the City.								

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<p>CULTURAL RESOURCES (cont.)</p> <p>There was one historic site identified within the SPA Plan area. The historic site, located on the Village Two project area, consists of the remains of the Otay Ranch Farm Complex. Appendix I, of the February 2004(a) report for cultural resources at the Otay Ranch Village Two SPA, concluded that no historically significant remaining components were visible during site testing. However, the proposed project could result in significant archaeological impacts because the site may contain masked subsurface deposits that may be encountered during grading and excavation activities for the proposed project.</p>	<p>5.4-2 A qualified archaeological monitor shall be on-site during initial grading of CA-SDI-11,384H. If historic archaeological material is encountered during grading, all grading in the vicinity as determined and defined by the archaeologist shall stop and its importance shall be evaluated, and suitable mitigation measures shall be developed and implemented, if necessary. Cultural material collected shall be permanently curated at an appropriate repository. Curation of collections from the project will be curated in a facility approved in advance by the City.</p>		OP		CCV				

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<p>GEOLOGY</p> <p>The exposure of a residential community and individual persons to ground acceleration generated from potential earthquakes along off-site faults would be a direct, long-term, significant impact associated with implementation of the proposed project. Compliance with the requirements of the governing jurisdictions, building codes, and standard practices of the Association of Structural Engineers of California would reduce the potential impact resulting from seismic-induced ground shaking below a level of significance.</p>	<p>5.5-1 Prior to the issuance of the grading permit, the applicant(s) shall verify that the applicable recommendations of the preliminary geotechnical investigations for Villages Two and Three prepared by Geocon (August 18, 2003 and September 3, 2003, respectively) have been incorporated into the project design and construction documents to the satisfaction of the City Engineer. Recommendations include, but are not limited to:</p> <p>a) During construction liquefiable soils within the colluvium/alluvium shall be removed and replaced with compacted fill.</p>	ALL	ALL	ALL	CCV				

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GEOLOGY (cont.)	b) During construction highly expansive soils shall be kept below finish grade. Where excavations expose highly expansive materials at finish grade, these materials shall be excavated a minimum of four feet below finish grade. Where excavations expose very highly expansive material at finish grade, these materials shall be excavated a minimum of five feet below finish grade. The excavations shall be replaced with a compacted fill soil that has a low to moderate expansion potential.		ALL						

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GEOLOGY (cont.)	c) During construction, the developer shall remove loose, compressible soils and replace as compacted fill in areas that will be subjected to new fill or structural loads.			ALL					
	d) During grading the developer shall construct earthen buttresses on unstable slopes with drains installed, as warranted, at the rear of the buttresses to control groundwater.			ALL					
	e) Grading of building pads shall be designed so that foundations bear entirely on a relatively uniform depth of compacted fill. This may be accomplished by overexcavating the cut portion of the building pad.			ALL					

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GEOLOGY (cont.)									
5.5-2	If the existing City of San Diego waterline is not relocated, the following mitigation measure shall be required to reduce impacts associated with grading above portions of the existing waterline. Prior to the issuance of the grading permit, the applicant(s) shall consult with a pipeline specialist to evaluate the structural integrity of the existing City of San Diego waterline pipe and tunnel and the effect of the fill loads. A deformation analysis shall be performed once final grades have been determined.		ALL						
5.5-3	Prior to the issuance of the grading permit, the applicant(s) shall verify that the design of any structures would comply with the requirements of the Uniform Building Code and standard practices of the Association of Structural Engineers of California.		ALL						
PALEONTOLOGY									
Grading in the Otay, Sweetwater, or San Diego Formations, or in the Terrace Deposits would potentially impact paleontological resources due to the high or moderate resource potential in those formations/deposits. The potential impact to paleontological resources would be significant.	5.6-1 Prior to approval of the grading permit, the applicant(s) shall incorporate into grading plans to the satisfaction of the City of Chula Vista's Engineer and Environmental Review Coordinator, the following:		ALL		CCV				

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Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
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PALEONTOLOGY (cont.)	<p>a) Prior to issuance of any grading permits, the applicant(s) shall confirm to the City of Chula Vista that a qualified paleontologist has been retained to carry out the following mitigation program. The paleontologist shall attend pregrade meetings to consult with grading and excavation contractors. (A qualified paleontologist is defined as an individual with a M.S. or Ph.D. in paleontology or geology who is familiar with paleontological procedures and techniques.)</p> <p>b) A paleontological monitor shall be on-site at all times during the original cutting of previously undisturbed sediments of highly sensitive geologic formations (i.e., Otay, Sweetwater, and San Diego Formations) to inspect cuts for contained fossils. The paleontological monitor shall work under the direction of a qualified paleontologist. The monitor shall be on-site on at least a half-time basis during the original cuts in deposits with a moderate resource sensitivity (i.e., Terrace Deposits). (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.)</p>		ALL						
			ALL	ALL					

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact PALEONTOLOGY (cont.)	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
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	<p>In the event that fossils are discovered in unknown sensitive formations, it may be necessary to increase the per-day field monitoring time. Conversely, if fossils are not discovered, the monitoring may be reduced.</p> <p>c) When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In instances where recovery requires an extended salvage time, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Where deemed appropriate by the paleontologist (or paleontological monitor), a screen-washing operation for small fossil remains shall be set up.</p>			ALL					

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Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
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PALEONTOLOGY (cont.)	d) Prepared fossils, along with copies of all pertinent field notes, photographs, and maps, shall be deposited (with the applicant(s)' permission) in a scientific institution with paleontological collections. A final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussion of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.			ALL	ALL				

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Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
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<p>AGRICULTURE</p> <p>Development of the SPA Plan and the Composite TM would result in a significant impact to agricultural resources, due to the loss of 858.8 acres of Farmland of Local Importance and the conversion of 321.72 acres of Grazing Land to urban uses. The loss of this acreage would result in a significant unavoidable impact due to the incremental and irreversible loss or impairment of Farmland of Local Importance and Grazing Land. This was previously addressed in the Olay Ranch GDP Program EIR and was determined to be significant and not fully mitigated. At that time, a statement of overriding considerations was adopted for this impact. Furthermore, noise, odors, insects, rodents, and chemicals associated with agricultural operations would create indirect, short-term, potentially significant impacts between the agricultural uses and urban uses.</p>	<p>5.7-1 The Agricultural Plan included in the SPA Plan shall be implemented for the area as development proceeds in the proposed SPA Plan area. The following measures shall be implemented by the developer(s) to the satisfaction of the City of Chula Vista's Director of Planning and Building:</p> <p>a) A 200-foot buffer between developed property and ongoing agriculture operations shall be maintained. The use of pesticides shall comply with federal, state, and local regulations;</p> <p>b) Vegetation shall be used to shield adjacent urban development (within 400 feet) from agriculture activities where pesticides are to be applied;</p>	ALL	ALL	ALL	CCV				

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AGRICULTURE (cont.)									
	<p>c) Notification shall be given to adjacent property owners of potential pesticide application through newspaper advertisements; and</p> <p>d) Fencing shall be installed, where necessary, to ensure the safety of the SPA Plan area residents.</p>	ALL	ALL	ALL	CCV				
WATER RESOURCES AND WATER QUALITY									
<p>5.9-1 Converting the existing undeveloped project site to an urban landscape with multiple land uses would introduce impermeable surfaces, which would decrease the amount of infiltration occurring at the project site and lead to increased runoff rates and the potential for pollutants to be introduced to water sources. Therefore, development of the proposed SPA has the potential to contribute to significant water quality impacts. Drainage at the site would be altered to direct stormwater runoff into the municipal storm drain system.</p>	<p>5.9-1 Prior to issuance of each grading permit, a detailed drainage system design study shall be prepared to the satisfaction of the City Engineer and shall include but not be limited to:</p> <p>a) Peak runoff at each inlet, outlet, interceptor, concentration, or confluence point, both predevelopment and postdevelopment conditions;</p> <p>b) The integration of the proposed system with the existing and proposed downstream drainage facilities to effectively control flows within the entire system; and</p>	ALL	ALL	ALL	CCV				

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WATER RESOURCES AND WATER QUALITY (cont.)									
	c) Maps showing existing and postdevelopment conditions for existing topography and proposed grading plans incorporating a drainage system design with main lines and detention/desilting facilities pursuant to Section 3-202.1 of the Chula Vista Subdivision Manual; and on-site detention/desilting facilities shall be incorporated in the design for the various phases of construction and postconstruction.	ALL	ALL	ALL	ALL	CCV			

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WATER RESOURCES AND WATER QUALITY (cont.)									
5.9-2	<p>Prior to the issuance of the first grading permit, the applicant(s) shall submit a SWPPP including assignment of maintenance responsibilities for review and approval by the City Engineer. The SWPPP shall be consistent with the requirements of the Clean Water Act and all requirements set forth in the General Construction Permit; the City of Chula Vista Storm Water Management and Discharge Control Ordinance (Storm Water Management Ordinance) the City of Chula Vista Standard Urban Stormwater Management Plan (SUSMP), and the City of Chula Vista Development and Redevelopment Projects Storm Water Management Standards Requirements Manual (Storm Water Management Manual). BMPs identified in the SWPPP shall include but shall not be limited to the following:</p>	ALL	ALL	ALL					
					CCV				

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WATER RESOURCES AND WATER QUALITY (cont.)									
	<p>a) Temporary erosion control measures designed in accordance with the City of Chula Vista Grading Ordinance shall be employed for disturbed areas and shown on the grading plans.</p> <p>b) No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.</p> <p>c) Sediment will be retained on-site by a system of sediment basins, traps, or other appropriate measures, and shown on the grading plans.</p>								

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WATER RESOURCES AND WATER QUALITY (cont.)									
	d) Silt and oil and other contaminants will be prevented from entering the storm drain system or removed from the system, by a means acceptable to the City Engineer. Storm drain inlets shall be labeled "No Dumping—Drains to Ocean." e) All parking lots shall be designed to allow storm water runoff to be directed to vegetative filter strips or oil-water separators to control sediment, oil, and other contaminants. f) Permanent energy dissipaters will be included for drainage outlets. g) A combination of on-site structural and non-structural BMPs for the treatment of urban pollutants in compliance with the Municipal Permit.								

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WATER RESOURCES AND WATER QUALITY (cont.)									
5.9-3	Prior to the issuance of all subsequent permits and approvals associated with the project including but not limited to improvement plan approvals, construction permits, site plan approvals, design review approvals, conditional use permits, grading permits, the applicant of such permits, and/or approvals shall comply with the Clean Water Act, the Municipal permit, the General Construction Permit, and the Storm Water Management Ordinance and submit a SWPPP prior to the issuance of such permits and/or approvals in compliance with the City's Storm Water Management Manual and the SUSMP.								
TRAFFIC, CIRCULATION, AND ACCESS									
<u>Direct Impact</u>									
Based on the peak hour intersection, segment and freeway analyses, the significance of impacts under each analysis timeframe was determined. Table 5.10-14 of this EIR summarizes the significant intersection impacts, while Table 5.10-15 of this EIR summarizes the significant street segment impacts.	5.10-1	Prior to the issuance of building permits, the applicant(s) shall pay the applicable Transportation Development Impact Fee (TDIF), as amended to design, construct, and secure a fully actuated traffic signal, including interconnect wiring, mast arms, signal heads and associated equipment, underground improvements, standards and luminaries at the Rock Mountain Road/La Media Road intersection. The design of the signal shall be to the satisfaction of the City Engineer. Turn lane storage lengths shall be provided as indicated in Table 5.10-16.	ALL		CCV				

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TRAFFIC, CIRCULATION, AND ACCESS (cont.)									
<u>Cumulative Impacts</u> The proposed SPA Plan and the Composite TM would result in a cumulative impact along two segments of Rock Mountain Road by year 2015: from La Media Road to SR-125 and from SR-125 to Eastlake Parkway	5.10-2 Prior to issuance of building permits, the applicant(s) shall pay the applicable Transportation Development Impact Fee (TDIF), as amended, towards widening Rock Mountain Road from La Media Road to Eastlake Parkway to six lanes or toward an intersection improvement along Rock Mountain Road to the satisfaction of the City Engineer by year 2015.		ALL						
The proposed SPA Plan and the Composite TM would result in cumulative impacts along three segments of Rock Mountain Road by year 2030: from SR-125 to Eastlake Parkway, from La Media Road to SR-125, and from Main Street to La Media Road.	5.10-3 Prior to issuance of building permits, the applicant(s) shall pay the applicable Transportation Development Impact Fee (TDIF), as amended, toward widening Rock Mountain Road from Main Street to Eastlake Parkway to eight lanes or towards an intersection improvement along Rock Mountain Road, to the satisfaction of the City Engineer by year 2030.		ALL		CCV				

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<p>TRAFFIC, CIRCULATION, AND ACCESS (cont.)</p> <p>5.10-4 The proposed SPA Plan and the Composite TM would impact the following freeway segments:</p> <ul style="list-style-type: none"> • Northbound I-805 from Telegraph Canyon Road to East H Street • Southbound I-805 from East H Street to Telegraph Canyon Road • Southbound I-805 from Olympic Parkway to Main Street • Northbound I-805 from Olympic Parkway to Telegraph Canyon Road • Southbound I-805 from Telegraph Canyon Road to Olympic Parkway • Southbound I-805 from Olympic Parkway to Main Street 	<p>Mitigation Measure</p> <p>5.10-4 For the following freeway segments, additional lanes would be required to maintain acceptable LOS. The City of Chula Vista recommends continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.</p> <ul style="list-style-type: none"> • Northbound I-805 from Telegraph Canyon Road to East H Street • Southbound I-805 from East H Street to Telegraph Canyon Road • Southbound I-805 from Olympic Parkway to Main Street • Northbound I-805 from Olympic Parkway to Telegraph Canyon Road • Southbound I-805 from Telegraph Canyon Road to Olympic Parkway • Southbound I-805 from Olympic Parkway to Main Street 	<p>SPA/TM</p> <p>Pre Const.</p> <p>During Const.</p> <p>Post Const.</p>	<p>Pre Const.</p> <p>During Const.</p> <p>Post Const.</p>	Caltrans					

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TRAFFIC, CIRCULATION, AND ACCESS (cont.)									
<u>Project Access</u>									
Access-related impacts would occur if appropriate lane configurations are not provided at the project driveways.	<p>5.10-5 Phasing of the following improvements shall be consistent with the project PFFP and to the satisfaction of the City Engineer, with intersection lane geometry per Figure 5.10-11 of this EIR. Prior to the approval of the final map triggering the construction of the intersection improvements, including installation of a traffic signal, the applicant shall enter into an agreement to design, construct, and secure a fully actuated traffic signal including interconnect wiring, mast arms, signal heads and associated equipment, underground improvements, standards, and luminaries at the intersections listed below. The design of the signal shall be to the satisfaction of the City Engineer and conform to City standards. The applicant shall provide turn lane storage lengths as listed in Table 5.10-16 of this EIR.</p> <ul style="list-style-type: none"> • Heritage Rd/Olympic Pkwy • Heritage Rd/Main Street • Heritage Rd/Street "D" • Heritage Rd/Street "F" • Heritage Rd/Street "J" North • Heritage Rd/Street "J" South • La Media Road/Birch Road • La Media Road/Santa Luna • Olympic Parkway/Street "D" 	ALL	ALL						

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**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
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<p>TRAFFIC, CIRCULATION, AND ACCESS (cont.)</p> <p><u>PFFP</u></p> <p>In the traffic analysis, LLG determined approximately how many dwelling units within the project could be constructed before Heritage Road would need to be connected southward to Main Street. Table 5.10-14 of this EIR summarizes the PFFP thresholds and Figure 5.10-9 of this EIR shows the subject roadway segments.</p>	<p>5.10-6 Prior to the approval of the final map containing the EDU threshold triggering the construction of street improvements, as defined by the PFFP, the applicant shall enter into an agreement to design, construct, and secure full street improvements to the street segments listed below. Phasing of improvements shall be consistent with the project PFFP and to the satisfaction of the City Engineer.</p> <p>Heritage Road Olympic Parkway to Street "D" Street "D" to Street "F" Street "F" to Street "J" North Street "J" North to Street "J" So. Street "J" South to Main Street Heritage Road south of Main Street</p>	ALL	ALL						

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TRAFFIC, CIRCULATION, AND ACCESS (cont.)										
	<p>Main Street From Heritage Road to existing improvements East of Heritage Road to project SPA boundary</p> <p>Street "D" Heritage Road to Street E Street E to State Street State Street to Santa Venetia Olympic Parkway to Heritage Road</p> <p>Street "E" Street "D" to Street "B" Street "B" to La Media Road</p> <p>La Media Road Santa Venetia to Birch Avenue South of Birch Road to community park entrance (or Santa Luna)</p>									

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TRAFFIC, CIRCULATION, AND ACCESS (cont.)									
5.10-7	No units within the project area shall be constructed which would result in the total number of units within the Eastern Territories exceeding 8,990 units, prior to the construction of SR-125 between SR-54 and the International Border. The City may issue additional building permits if the City Council determines that each of the following conditions have been met: (1) SR-125 is constructed and open between SR-54 and Olympic Parkway; and (2) traffic studies, prepared to the satisfaction of the City Engineer and the City Council, demonstrates that the opening of SR-125 to Olympic Parkway provides additional capacity to mitigate the project's cumulative significant impacts to a level below significance without exceeding Growth Management Oversight Committee traffic threshold standards. Additionally, the City may issue building permits if the City Council has approved an alternative method to implement the City's Growth Management Ordinance, as amended from time to time.		ALL	ALL					
					CCV				

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AIR QUALITY The proposed project will result in a cumulatively significant long-term contribution to regional PM ₁₀ and ozone levels as a result of projected emissions of ROG, an ozone precursor. The proposed project will also result in a short-term significant fugitive dust impact as a result of emissions stemming from construction.	5.11-1	Prior to the approval of building permits for each phase of the project, the applicant(s) shall demonstrate that air quality control measures outlined in the Sectional Planning Area (SPA) Plan Air Quality Improvement Plan pertaining to the design, construction, and operational phases of the project have been implemented.	ALL		CCV				
	5.11-2	Prior to the approval of any grading permit, the following measures shall be placed as notes on all grading plans, and shall be implemented during grading of each phase of the project to minimize construction emissions:	ALL		CCV				

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AIR QUALITY (cont.)	<p>a) Minimize simultaneous operation of multiple construction equipment units;</p> <p>b) Use low pollutant-emitting equipment construction equipment as practical;</p> <p>c) Use electrical construction equipment as practical;</p> <p>d) Use catalytic reduction for gasoline-powered equipment;</p> <p>e) Use injection timing retard for diesel-powered equipment;</p> <p>f) Water the construction areas a minimum of twice daily to minimize fugitive dust;</p> <p>g) Stabilize graded areas as quickly as possible to minimize fugitive dust;</p> <p>h) Pave permanent roads as quickly as possible to minimize dust;</p> <p>i) Use electricity from power poles instead of temporary generators during building, as feasible;</p> <p>j) Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry;</p> <p>k) Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads;</p> <p>l) Remove any visible track-out into traveled public streets within 30 minutes of occurrence;</p>								

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AIR QUALITY (cont.)	<p>m) Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred;</p> <p>n) Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads;</p> <p>o) Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling; and</p> <p>p) Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph.</p>								

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<p>NOISE</p> <p>Potential sources of noise related to the proposed project include construction noise, traffic-generated noise, noise from activities at the high school, noise from the community park, and noise from industrial uses. Traffic on Olympic Parkway, Birch Road, La Media Road, Heritage Road, and several internal streets would cause a significant noise impact.</p>	<p>General Plan Update Circulation Element</p> <p>5.12-1 Noise barriers shall be constructed as shown on Figure 5.12-4 of this EIR with the following provisions:</p> <ul style="list-style-type: none"> • Prior to the issuance of any building permit for those lots within the noise contour of 65 CNEL or greater, the applicant(s) shall construct the noise barriers as shown on Figure 5.12-4. Required barrier heights may be achieved through the construction of walls, berms, or wall/berm combinations. With the construction of barriers ranging from three to six feet along the edge of pad or top of slope as shown in Figure 5.12-4, noise levels at all ground-floor 	ALL	ALL						

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<p>NOISE (cont.)</p> <p>Active uses in the community park may exceed standards for the residential zone to the south of the park. Noise levels produced on the industrial properties have the potential to affect adjacent residential uses and adjacent wildlife. Depending on the specifics of the industrial uses, this may be a significant impact.</p>	<p>residential usable areas and the community park site would be at or below 65 CNEL. As indicated in Figure 5.12-4, the noise barrier adjacent to the community park may begin just north of the anticipated driveway at the southeast of the park.</p> <p>A site design for the multi-family residential area is not available at this time. Mitigation of any exterior use areas could also be achieved through the site design by placing the exterior use areas on the sides of the building opposite the major project roadways (Olympic Parkway, Heritage Road and La Media Road). This would ensure that these areas are adequately shielded from roadway noise.</p> <ul style="list-style-type: none"> • Prior to issuance of the rough grading permit, noise barriers shall be shown on wall and fence plans to the satisfaction of the Director of Building and Planning and the Environmental Review Coordinator. 								

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NOISE (cont.)									
5.12-2	Prior to approval of building permits for single-family areas where second floor exterior noise levels exceed 65 CNEL, an acoustical analysis shall be performed ensuring that interior noise levels due to exterior sources will be at or below 45 CNEL. Building plans will be available during design review and will permit the accurate calculation of transmission loss for habitable rooms. (lots 1 through 4, 6, 7 and 9 through 17 in R-6; lots 103, 104, 114, 115, and 129 in R-5; lots 11, 12 [or 25-C if this lot will have a building] and 34 in R-25; and lots 3, 5 through 9, 11, 12, 14, 19 and 20 in R-4.) For these lots, it may be necessary for the windows to be able to remain closed to ensure that interior noise levels meet the interior standard of 45 CNEL. Consequently, the design for these units may need to include a ventilation or air conditioning system to provide a habitable interior environment with the windows closed based on the results of the interior acoustical analysis.	ALL	ALL						
					CCV				

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(cont.)**

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NOISE (cont.)	<p>5.12-3 As stated in Title 24 of the State Building Code, prior to approval of design review permits for multi-family areas where first and/or second floor exterior noise levels exceed 60 CNEL, an acoustical analysis shall be performed ensuring that interior noise levels due to exterior sources will be below 45 CNEL. Building plans will be available during design review and will permit the accurate calculation of transmission loss for habitable rooms. (Portions of Neighborhoods R-14, MU-3, R-30, R-13, and R-12.) For these areas, it may be necessary for the windows to be able to remain closed to ensure that interior noise levels meet the interior standard of 45 CNEL.</p> <p>Consequently, the design for buildings in these areas may need to include a ventilation or air conditioning system to provide a habitable interior environment with the windows closed based on the results of the interior acoustical analysis.</p>	ALL	ALL						

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NOISE (cont.) FOOTBALL STADIUM NOISE Proposed residential units to the south of the High School stadium would be affected by activities at the stadium. Exterior noise levels at receivers 2 through 8 in Village Two are projected to exceed 65 CNEL. This could cause a significant impact without mitigation.	5.12-4 Prior to the issuance of any building permit for Lots 21, 22, 27, 28, 29, 30, and 53 through 57 (see Figure 5.12-3), the applicant(s) shall construct four-foot high barriers along the northern property line of the affected lots as shown on Figure 5.12-5.		X	X					
COMMUNITY PARK Active uses in the community park are not expected to exceed noise ordinance standards for Village Two to the north. However, noise levels may exceed standards for the residential zone to the south of the park. This could cause a significant impact without mitigation.	5.12-5 Prior to approval of a precise grading plan, an acoustical analysis shall be performed ensuring that noise levels do not exceed noise ordinance standards.	OP							
INDUSTRIAL USES Traffic noise levels are not projected to exceed 75 CNEL in industrial use areas. Noise levels produced on the industrial properties have the potential to affect adjacent residential uses and adjacent wildlife. Depending on the specifics of the industrial uses, this may be a significant impact.	5.12-6 Prior to the issuance of a building permit for an industrial use on lots adjacent to residential uses, or adjacent to the Wolf Canyon wildlife area a noise analysis shall be completed demonstrating that the proposed use will not exceed the noise limits set by the City's Noise Control Ordinance.	X	X						

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<p>PUBLIC SERVICES/UTILITIES – POTABLE WATER</p> <p>5.13.1-1 Prior to the approval of the first final map, a final Subarea Master Plan (SAMP) shall be required for the project. The SAMP shall include the following:</p> <ul style="list-style-type: none"> Existing pipeline locations, size, and capacity The proposed points of connection and system The estimated water demands and/or sewer flow calculated Governing fire department's fire flow requirements (flow rate, duration, hydrant spacing, etc) Agency's Master Plan Agency's planning criteria (see Sections 4.1 through 4.3 of the Water Agencies' Standards) Water quality maintenance Size of system and number of lots to be served <p>Water facilities improvements shall be financed or installed on-site and off-site in accordance with the SAMP.</p>	<p>ALL</p>	<p>ALL</p>	<p>ALL</p>	<p>CCV</p>					

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PUBLIC SERVICES/UTILITIES – POTABLE WATER									
	5.13.1-2 Prior to the approval of the first final map, the applicant(s) shall secure and agree with the Otay Water District to construct all potable water facilities (on-site and off-site) required to serve the project. These water facilities improvements shall be financed or installed on-site and off-site in accordance with the fees and phasing in the approved Public Facilities Finance Plans for the SPA Plan.	ALL	ALL						
PUBLIC SERVICES/UTILITIES – RECYCLED WATER									
The proposed project would result in an incremental increase in the use of recycled water and place additional demands on water storage and pumping facilities. The increase in use of recycled water has been planned for by OWD and will not have a significant impact. However, the impact to recycled water storage and distribution facilities would be significant if construction of new facilities does not coincide with the project's anticipated growth.	5.13.2-1 Prior to the approval of the first final map, a final Subarea Master Plan (SAMP) shall be required for the project. The SAMP shall include the following: <ul style="list-style-type: none"> Existing pipeline locations, size, and capacity The proposed points of connection and system The estimated water demands and/or sewer flow calculated Governing fire department's fire flow requirements (flow rate, duration, hydrant spacing, etc) 	ALL	ALL						

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PUBLIC SERVICES/UTILITIES – RECYCLED WATER									
	<ul style="list-style-type: none"> • Agency's Master Plan • Agency's planning criteria (see Sections 4.1 through 4.3 of the Water Agencies' Standards) • Water quality maintenance • Size of system and number of lots to be served <p>Water facilities improvements shall be financed or installed on-site and off-site in accordance with the SAMP.</p>								
	5.13.2-2 Recycled water facility improvements shall be financed or installed on- and off-site in accordance with the fees and phasing in the approved PFFP for the Villages Two, Three, and a portion of Four SPA Plan.	ALL	ALL						
PUBLIC SERVICES/UTILITIES – SEWER SERVICES									
Development of the proposed SPA Plan and Composite TM would result in an increase in sewage generation. There is sufficient capacity in the Poggi Canyon and Wolf Canyon/Salt Creek Interceptors to accommodate the proposed SPA Plan. The Poggi Canyon Interceptor would adequately serve the Village Four community park on an interim basis.	5.13.3-1 Sewer facility improvements shall be financed or installed on-site and off-site in accordance with the fees and phasing in the approved Public Facilities Financing Plan.	ALL	ALL		CCV				

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PUBLIC SERVICES/UTILITIES – SEWER SERVICES									
The southerly portion of Village Two and Village Three cannot be developed until completion of the Heritage Road sewer line and connection to the Wolf Canyon/Salt Creek Interceptor.	5.13-2 Prior to the recordation of the first Final Map or grading permit that creates any parcel located within the Wolf Canyon/Salt Creek Sewer Basin, the City Engineer shall be satisfied that the connections to the gravity sewer system from the southern portion of Village Two have been designed to convey flow to Heritage Road and southerly to the Salt Creek Interceptor.		ALL	ALL					
	5.13-3 In order to ensure the timely construction of the Heritage Road regional facility, prior to the first Final Map that creates any parcel located within the Wolf Canyon/Salt Creek Sewer Basin, the necessary right-of-way for constructing full street improvements within the SPA Plan boundary shall be granted to the City.		X	X					

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<p>PUBLIC SERVICES/UTILITIES- LAW ENFORCEMENT</p> <p>5.13.5-1 Development of the proposed SPA Plan and the Composite TM for Villages Two, Three and a portion of Village Four would result in a significant impact to law enforcement because of the predicted increase in calls for service and the additional travel time required to answer these calls.</p>	<p>Prior to the approval of each building permit, the applicant(s) shall pay Public Facilities Development Impact Fees (PFDF). The proposed Public Facilities Financing Plan describes public facilities fees for police services based on equivalent dwelling units by development phase. The applicant(s) shall pay the public facilities fees at the rate in effect at the time building permits are issued.</p>	ALL	ALL	ALL					
		5.13.5-2	<p>The City of Chula Vista shall continue to monitor the Chula Vista Police Department responses to emergency calls and report the results to the Growth Management Oversight Committee on an annual basis.</p>	ALL	ALL	ALL			

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		PUBLIC SERVICES/UTILITIES- FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES								
<p>The Chula Vista Fire Department does not currently meet the threshold standard for response time for the City, including the Otay Ranch community. However, as population growth in the service area warrants, fire stations would be constructed within Village Nine of the Otay Valley parcel and within Village Thirteen of the Proctor Valley parcel. These stations would help ensure adequate service within the requirements of the GMOC threshold standards. Impacts to fire and emergency medical services would be significant if construction of these facilities does not coincide with the project's anticipated population growth and increased demand for services.</p>	5.13.6-1	ALL	ALL	ALL	CCV					
	5.13.6-2	ALL	ALL	ALL	ALL					

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PUBLIC SERVICES/UTILITIES- SCHOOLS									
Project implementation would result in a significant impact to schools unless construction of facilities coincides with student generation and associated service demands.	5.13.7-1 Prior to the issuance of building permits, the applicant(s) shall pay all required school mitigation fees or enter into an agreement to help finance the needed facilities and services for the Chula Vista Elementary Unified School District to the satisfaction of the School District.	ALL	ALL	ALL	CCV				
	5.13.7-2 Prior to the issuance of building permits, the applicant(s) shall pay all required school mitigation fees or enter into an agreement to help finance the needed facilities and services for the Sweetwater Union High School District to the satisfaction of the School District.	ALL	ALL	ALL	CCV				
PUBLIC SERVICES/UTILITIES- LIBRARY SERVICE									
Implementation of the proposed SPA Plan project would result in an estimated population increase of 8,458 and would, therefore, require approximately 4,250 square feet of additional library facilities. A potentially significant impact would result if construction of new library facilities and provision of additional documents does not coincide with project implementation and associated population growth.	Prior to approval of each building permit, the applicant(s) shall pay Public Facilities Development Impact Fees. Prior to the issuance of building permits, Applicants shall pay required Public Facility Development Impact fees at the rate in effect at the time of permit issuance.	ALL	ALL	ALL	CCV				

¹SPA Plan: Sectional Planning Area Plan TM: tentative map Pre Const: pre-construction During Const: during construction Post Const: post-construction
²OP = Otay Project, L.P.; OR = Otay Ranch Investments, LLC; SMBF = Stephen and Mary Birch Foundation; FRC= Flat Rock Company

**VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
MITIGATION MONITORING REPORTING PROGRAM
(cont.)**

Potential Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Reporting Agency	Time Frame for Verification		Date of Completion	Date of Verification
		SPA/TM	Pre Const.	During Const.		Post Const.	Monitor		
<p>PUBLIC SERVICES/UTILITIES- PARKS AND RECREATION</p> <p>Project implementation of the proposed SPA Plan and Composite TM for Villages Two, Three, and a portion of Four would generate increased demand for parks and recreation facilities. A potentially significant impact could result if dedication of parkland and construction of new facilities does not coincide with project implementation and project population growth.</p>	<p>5.13.9-1 Prior to the approval of the first final map, the applicant(s) shall dedicate neighborhood and community parkland. Prior to approval of the Final Map, or for projects not requiring a Final Map, prior to building permit, the applicant(s) shall pay park development fees; and prior to building permit the applicant(s) shall pay recreation development impact fees in accordance with the fees and phasing approved in the Public Facilities Financing Plan for the SPA Plan.</p>	ALL	ALL						
		CCV							
<p>HAZARDS/RISK OF UPSET</p> <p>The Phase I ESA conducted for Village Three concluded that there is a potential for agriculturally developed portions of the subject property to be impacted by residual agricultural, including soil augmenting and chemicals.</p>	<p>5.14-1 If soil is to be exported from the site during proposed grading and other construction activities, it should be characterized prior to proposed offsite use or disposal and handled in accordance with applicable environmental laws and regulations. In addition, contractors performing proposed grading and construction activities should employ adequate dust control measures to minimize exposure to soil and dust at the site.</p>		SMBF	SMBF					
		CCV							

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VILLAGES TWO, THREE, PLANNING AREA 18b, AND A PORTION OF VILLAGE FOUR SECTIONAL PLANNING AREA PLAN
 MITIGATION MONITORING REPORTING PROGRAM
 (cont.)

Potential Significant Impact HAZARDS/RISK OF UPSET (cont.)	Mitigation Measure	Time Frame of Mitigation and Responsible Party ^{1,2}			Monitoring Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		SPA/ TM	Pre Const.	During Const.		Post Const.	Monitor		
Elevated levels of organochlorine pesticides were present in the soils at the Village Four site. The concentrations of the pesticides in the soils at the Village Four Community Park Site would be considered a significant risk to public safety and mitigation would be required.	5.14-2 If soil exhibiting hydrocarbon staining and/or odors are encountered at the site during grading and/or construction, the soil should be evaluated by a qualified professional (such as a professional engineer, registered geologist, or registered environmental assessor experienced in hazardous waste evaluations) and handled in accordance with applicable environmental laws and regulations.		OP	OP					

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²OP = Otay Project, L.P.; OR = Otay Ranch Investments, LLC; SMBF = Stephen and Mary Birch Foundation; FRC= Flat Rock Company

**ENVIRONMENTAL IMPACT REPORT
FOR THE
VILLAGES TWO, THREE, AND A PORTION OF FOUR
SECTIONAL PLANNING AREA PLAN
AND COMPOSITE TENTATIVE MAP**

**CEQA FINDINGS OF FACT
AND
STATEMENT OF OVERRIDING CONSIDERATIONS**

May 2006

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BEFORE THE CHULA VISTA CITY COUNCIL

RE: Villages Two, Three, and a portion of Four Sectional Planning Area Plan and Tentative Maps Environmental Impact Report (EIR); SCH #2003091012; EIR #02-02.

FINDINGS OF FACT

I.

INTRODUCTION AND BACKGROUND

The Final Environmental Impact Report (Final EIR) prepared for the Villages Two, Three, and a portion of Four Sectional Planning Area Plan and Composite Tentative Map (TM) project addresses the potential environmental effects associated with implementation of the project. In addition, the Final EIR evaluates four alternatives to the proposed project: the No Project Alternative and three reduced development alternatives (Alternatives A, B, and C).

The Final EIR represents a second tier EIR, in accordance with CEQA Section 21094, and tiers from the certified Program EIR prepared for the Otay Ranch General Development Plan (EIR #90-01/SCH #89010154).

These findings have been prepared in accordance with requirements of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and the CEQA Guidelines (Cal. Code Regs., Title 14, § 15000 et seq.).

II.

ACRONYMS

AAQS” means Ambient Air Quality Standards
“AASHTO” means American Association of State Highway and Transportation Officials
“AB” means Assembly Bill
“ADT” means average daily traffic
“AHP” means Affordable Housing Program
“ALUCP” means Airport Land Use Compatibility Plan
“AQIP” means Air Quality Improvement Plan
“APCD” means San Diego Air Pollution Control District
“AST” means aboveground storage tank
“BACT” means Best Available Control Technology
“BMPs” means best management practices
“BRT” means Bus Rapid Transit
“CalEPA” means California Environmental Protection Agency
“Cal/OSHA” means California Occupational Safety and Health Administration
“Caltrans” means California Department of Transportation
“Calveno” means California Vehicle Noise Emission Levels
“CARB” means California Air Resources Board
“CDFG” means California Department of Fish and Game
“CDMG” means California Divisions of Mines and Geology
“CAA” means California Clean Air Act
“CCC” means California Coastal Commission
“CEC” means California Energy Commission
“CEQA” means California Environmental Quality Act
“CERCLIS” means Comprehensive Environmental Response, Compensation, and Liability Information System
“CESA” means California Endangered Species Act
CGS” means California Geological Survey
CIP” means Capital Improvement Program
“City” means City of Chula Vista
CIWMB” means California Integrated Waste Management Board
CIWMP” means Countywide Integrated Waste Management Plan
“CMP” means Congestion Management Program
“CNEL” means community noise equivalent level
“COG” means council-of-governments
“COHWMP” means County Hazardous Waste Management Plan
“CO₂” means Carbon Dioxide
“CPUC” means California Public Utilities Commission
“CRA” means Colorado River Aqueduct
“CVESD” means Chula Vista Elementary School District

“CVT” means Chula Vista Transit
“CWA” means Clean Water Act
“dB(A)” means A-weighted decibels
“DEH” means Department of Environmental Health
“DHS” means Department of Health Services.
“DIF” means Development Impact Fee
“DMG” means California Division of Mines and Geology
“DHS” means Department of Health Services
“DOE” means Department of Energy
“du/ac” means dwelling units per acre
“DTSC” means Department of Toxic Substances Control.
“EDUs” means Equivalent Dwelling Units.
“EIR” means environmental impact report.
“EPA” means Environmental Protection Agency.
“ERNS” means Emergency Response Notification System.
“ESL” means English as a Second Language.
“FARs” means floor area ratios.
“Fed/OSHA” means Federal Occupational Safety and Health Administration.
“FEMA” means Federal Emergency Management Agency.
“FESA” means Federal Endangered Species Act.
“FHWA” means Federal Highway Administration.
“FIRM” means Flood Insurance Rate Maps.
“FMMP” means Farmland Mapping and Monitoring Program.
“GED” means General Education Development.
“GDP” means General Development Plan.
“GMOC” means Growth Management Oversight Committee.
“gpd” means gallons per day.
“GPS” means global positioning system.
“GSF” means gross square feet.
“HABS” means Historic American Building Survey.
“HCD” means Housing and Community Development.
“HCM” means Highway Capacity Manual
“HLIT” means Habitat Loss and Incidental Take
“HWCL” means Hazardous Waste Control Law
“IA” means Implementing Agreement
“ICLEI” means International Council of Local Environmental Initiatives
“IID” means Imperial Irrigation District
“IRP” means Integrated Water Resources Plan, 2003 Update
“IWMA” means California Integrated Waste Management Act
“JEPA” means Joint Exercise of Powers Authority
“JURMP” means Jurisdictional Urban Runoff Management Program
“LAC” means Local Assessment Committee
“LCP” means Local Coastal Program

“LEA” means Local Enforcement Agency
“LEED” means Leadership in Energy and Environmental Design
“L_{max}” means maximum noise level
“LMV” means low-medium village
“LOMA” means Letter of Map Amendment
“LOMR-F” means Letter of Map Revision-Based on Fill
“LOS” means level of service
“LRT” means Light Rail Transit
“LUST” means Leaking Underground Storage Tanks
“LUSTIS” means Leaking Underground Storage Tanks Information System
“LUT” means Land Use and Transportation Element
“MEP” means maximum extent practicable
“METRO” means Metropolitan Wastewater System
“mgd” means million gallons per day
“MHPA” means Multi-Habitat Planning Area
“MITC” means Multi-Institutional Teaching Center
“MSCP” means Multiple Species Conservation Program
“MSL” means mean sea level
“MW” means megawatt
“MWD” means Metropolitan Water District of Southern California
“NAAQS” means national ambient air quality standards
“NCCP” means Natural Communities Conservation Planning Act
“NDFE” means Non-Disposal Facility Element
“NEIC” means National Earthquake Information Center
“NFA” means No Further Action
“NOP” means Notice of Preparation
“NOx” means nitrogen oxides
“NPDES” means National Pollutant Discharge Elimination System
“NPL” means National Priorities List
“NWR” means National Wildlife Refuge
“OVRP” means Otay Valley Regional Park
“OVT” means Otay Valley Trunk
“OWD” means Otay Water District
“PCC” means Portland cement concrete
“PFDIF” means Public Facilities Development Impact Fee
“PFFP” means Public Facilities Financing Plan
“PLDO” means Park Land Dedication Ordinance
“PM_{2.5}” means 2.5-micron particulate matter
“PM₁₀” means 10-micron particulate matter
“ppm” means parts per million
“QSA” means Quantification Settlement Agreement
“RAP” means Remedial Action Plan
“RAQS” means Regional Air Quality Standards

“RCC” means Resource Conservation Commission
“RCP” means Regional Comprehensive Plan
“RCRA” means Resource Conservation and Recovery Act
“RHB” means Radiological Health Branch
“RMP” means Resource Management Plan
“ROWs” means right-of-ways
“RTP” means Regional Transportation Plan
“RTIP” means Regional Transportation Improvement Program
“RTV” means Regional Transit Vision
“RWQCB” means Regional Water Quality Control Boards
“SANTEC/ITE” means San Diego Traffic Engineering Council/Institute of Transportation Engineers.
“SBPP” means South Bay Power Plant
“SBWRP” means South Bay Water Reclamation Plant
“SCAQMD” means South Coast Air Quality Management District
“SDAB” means San Diego Air Basin
“SDCWA” means San Diego County Water Authority
“SDG&E” means San Diego Gas & Electric Company
“SDREO” means San Diego Regional Energy Office
“SDWA” means Safe Drinking Water Act
“SEIR” means Subsequent Environmental Impact Report
“SEL” means sound exposure level
“SFHA” means Special Flood Hazard Area
“SIP” means State Implementation Plan
“SLIC” means Spills, Leaks, Investigation and Cleanup
“SMARA” means Surface Mining and Reclamation Act
“SMGB” means State Mining and Geology Board
“SoCalGas” means Southern California Gas Company
“SOx” means sulfur oxides
“SPA” means Sectional Planning Area
“SPL” means sound pressure level
“SRP” means Subregional Plan
“SRRE” means Source Reduction and Recycling Element
“SUHSD” means Sweetwater Union High School District
“SUSMP” means Standard Urban Stormwater Mitigation Plan
“SVOCs” means semi-volatile organic compounds
“SWIS” means Solid Waste Information System
“SWP” means State Water Project
“SWPPP” means storm water pollution prevention plan
“SWRCB” means State Water Resources Control Board
“TACs” means Toxic Air Contaminants
“TAZ” means traffic analysis zones
“TC” means Town Center

“TCM” means transportation control measures
“TDIF” means Transportation Development Impact Fee
“TDM” means Transportation Demand Management
“THI” means Total Health Hazards Index
“TRIS” means Toxic Release Inventory System
“TSM” means Transportation Systems Management
“URMPs” means Urban Runoff Management Plans
“USACE” means U.S. Army Corps of Engineers
“USGS” means United States Geological Survey
“USFWS” means U.S. Fish and Wildlife Service
“UST” means Underground Storage Tank
“VMT” means vehicle miles of travel
“VOCs” means volatile organic compounds
“WCP” means Water Conservation Plan
“WDR” means Waste Discharge Requirements
“WTP” means Water Treatment Plant
“WURMP” means Watershed Urban Runoff Management Program

III.

PROJECT DESCRIPTION

The *Villages Two, Three, and a portion of Four SPA Plan* project presents a plan of development for the Otay Ranch Investments, LLC, Otay Project, LP, the Stephen and Mary Birch Foundation, and the Flat Rock Company ownerships within Villages Two, Three, and a portion of Four of the Otay Ranch GDP area (SPA Plan). The *SPA Plan* allows for a total of 986 single-family dwelling units and 1,800 multi-family dwelling units. A minimum of 10 percent of the total dwelling units within the *SPA Plan* will provide housing for low and moderate-income households. Other land uses designated by the *SPA Plan* include an elementary school, a high school, public park, community purpose facilities, open space, and roadways. The *SPA Plan* is consistent with and implements the Otay Ranch GDP.

The land uses proposed in the SPA Plan include development of 2,786 dwelling units (986 single-family and 1,800 multi-family mixed-use units) on approximately 335.1 acres, three industrial areas on 87.9 acres within Village Two and a 176.5-acre business park within Village Three. The remaining 587.8 acres would be developed with non-residential uses, including community purpose facilities, schools, public parks, commercial uses, open space, two pedestrian bridges, and circulation rights-of-way. The proposed project includes a Composite Tentative Map (Composite TM) for the development within Village Two and the park in a portion of Village Four. The actual development of the other portions of the project will require the future approval of TMs and grading plans for the allowable uses.

The action to which this EIR applies is approval of the SPA Plan and the Composite TM for Village Two and the park located within Village Four. The *SPA Plan* also includes off-site infrastructure improvements, which are needed to serve the proposed development within the project site. In approving the proposed project, the City would allow for development of the project site in accordance with the General Plan and Otay Ranch GDP goals and policies.

DISCRETIONARY ACTIONS

The discretionary actions to be taken by the City Council of the City of Chula Vista (City) include the following:

- General Plan Amendments;
- Otay Ranch GDP Amendments;
- Adoption of the SPA Plan and associated documents of the SPA Plan;
- Phase One and Two RMP Amendments;

- City of Chula Vista MSCP Boundary Adjustment; and
- Tentative Subdivision Map.

In addition, this EIR will be used by other responsible agencies to implement the proposed project. Actions required by other agencies are discussed in Section 3.6.2 of the Draft EIR.

The City Council will also determine whether the Final EIR is complete and in compliance with CEQA and the CEQA Guidelines as part of the certification process.

The City of Chula Vista is the lead agency and has discretionary approval authority for all the actions pertaining to the SPA Plan and Composite TM sought by the project applicants: Otay Ranch Investments, LLC, Otay Project, LP, the Stephen and Mary Birch Foundation, and the Flat Rock Company. The Final EIR is intended to satisfy CEQA requirements for environmental review of those actions.

PROJECT GOALS AND OBJECTIVES

As specified in the Final EIR, the objectives of this project include:

- Establish a pedestrian and transit-oriented village with an intense urban core to reduce reliance on the automobile and promote walking and the use of bicycles, buses, and regional transit.
- Promote synergistic uses between the SPA area and the neighborhoods of adjacent Otay Ranch Villages to balance activities, services, and facilities.
- Implement the goals, objectives, and policies of the adopted Chula Vista General Plan, and particularly, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan.
- Implement Chula Vista's Growth Management Ordinance to ensure that public facilities are provided in a timely manner and financed by the parties creating the demand for, and benefiting from, the improvements.
- Foster development patterns that promote orderly growth and prevent urban sprawl.
- Develop, maintain, and enhance a sense of community identity.
- Establish a pedestrian-oriented village with an intense urban core to reduce reliance on the automobile and promote walking, and use of bicycles, buses, and regional transit.

- Promote synergistic uses between the SPA area and the neighborhoods of adjacent Otay Ranch villages to balance activities, services, and facilities.
- Accentuate the relationship of the land plan with its natural setting and the physical character of the region, and promote effective management of natural resources by concentrating development into less sensitive areas, while preserving large contiguous open space areas with sensitive resources.
- Add to the creation of a unique Otay Ranch image and identify which differentiates Otay Ranch from other communities.
- Wisely manage limited natural resources.
- Establish a land use and facility plan that assures the viability of the SPA Plan area in consideration of existing and anticipated economic conditions.

IV.

BACKGROUND

Villages Two and Three and a portion of Village Four are a part of the 11 urban villages in the Otay Ranch GDP/SRP, which was adopted by the City and County of San Diego (County) on October 28, 1993, after an extensive planning and environmental review process. The Otay Ranch is a master-planned community encompassing approximately 23,000 acres and includes a broad range of residential, commercial, retail, and industrial development. Civic and community uses—such as libraries, parks, and schools—and about 11,375 acres preserved as open space are also part of the Otay Ranch community. Each village is based on the “village concept” that blends multi-family homes and shops with parks, schools, and civic activities in a core area within each Village. The Village Core would be surrounded by single-family homes in secondary areas. All are tied together by pedestrian facilities.

Both the City and County adopted the Otay Ranch GDP/SRP. In the City, the document is a General Development Plan under Section 19.48 of the Chula Vista Municipal Code. In the County, the document is a Subregional Plan. The Otay Ranch GDP/SRP establishes goals and objectives for the development of the Otay Ranch. As part of the review and approval process for the Otay Ranch GDP/SRP, a Program EIR was prepared and certified by both the City and the County. The only difference in the two adoptions was the plans for Village Three. The City planned Village Three for Industrial land uses while the County SRP called for a residential village.

In March of 1997, the City annexed 9,100 acres of the Otay Valley Parcel to the City. As part of the annexation, the City entered into an agreement with the County of San Diego that established the Otay Landfill Buffer 1,000 feet around the operating part of the Otay Landfill and changed the General Plan and Otay Ranch GDP to the nonresidential Industrial designation. This designation was applied to portions of Village Two and Two West within the 1,000-foot buffer. No changes in Village Three were necessary since the village was already planned for industrial land uses within the city.

Under the implementation program for the Otay Ranch GDP/SRP, SPA Plans are required to be approved before final development entitlements can be considered. The proposed SPA Plan for Villages Two and Three and a portion of Village Four will further refine the development standards, land plans, goals, objectives, and policies of the adopted Otay Ranch GDP/SRP. The proposed SPA Plan is provided as required by the Otay Ranch GDP and pursuant to Title 19, Zoning, of the Chula Vista Municipal Code.

V.

RECORD OF PROCEEDINGS

For purposes of CEQA and the findings set forth below, the administrative record of the City Council decision on the environmental analysis of this project shall consist of the following:

- The Notice of Preparation and all other public notices issued by the City in conjunction with the project;
- The Draft and Final EIR for the project (EIR #04-06), including appendices and technical reports;
- All comments submitted by agencies or members of the public during the public comment period on the Draft EIR;
- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the proposed project prepared by the City, consultants to the City, or responsible or trustee agencies with respect to the City's compliance with the requirements of CEQA and the City's actions on the proposed project;
- All documents, comments, and correspondence submitted by members of the public and public agencies in connection with this project, in addition to comments on the EIR for the project;
- All documents submitted to the City by other public agencies or members of the public in connection with the EIR, up through the close of the public hearing;
- Minutes and verbatim transcripts of all workshops, the scoping meeting, other public meetings, and public hearings held by the City, or videotapes where transcripts are not available or adequate;
- Any documentary or other evidence submitted at workshops, public meetings, and public hearings for this project;
- All findings and resolutions adopted by City decision makers in connection with this project, and all documents cited or referred to therein; and
- Matters of common knowledge to the City, which the members of the City Council considered regarding this project, including federal, state, and local laws and regulations, and including but not limited to the following:
- Chula Vista General Plan;

- Relevant portions of the Zoning Code of the City;
- Otay Ranch General Development Plan (GDP);
- Otay Ranch Resource Management Plan (RMP);
- City of Chula Vista Multiple Species Conservation Program Subarea Plan;
- Otay Ranch GDP/SRP Final EIR (EIR #90-01; SCH No. 89010154); and
- Any other materials required to be in the record of proceedings by Public Resources Code section 21167.6, subdivision (e).

The custodian of the documents comprising the record of proceedings is Susan Bigelow, Clerk to the City Council, whose office is located at 276 Fourth Avenue, Chula Vista, California 91910.

The City Council has relied on all of the documents listed above in reaching its decision on the proposed project, even if every document was not formally presented to the City Council or City Staff as part of the City files generated in connection with the project. Without exception, any documents set forth above but not found in the project files fall into two categories. Many of them reflect prior planning or legislative decisions with which the City Council was aware in approving the project (see *City of Santa Cruz v. Local Agency Formation Commission* (1978) 76 Cal.App.3d 381, 391-392 [142 Cal.Rptr. 873]; *Dominey v. Department of Personnel Administration* (1988)205 Cal.App.3d 729, 738, fn. 6 [252 Cal. Rptr. 620]. Other documents influenced the expert advice provided to City Staff or consultants, who then provided advice to the City Council. For that reason, such documents form part of the underlying factual basis for the City Council's decisions relating to the adoption of the *SPA Plan* (see Pub. Resources Code, section 21167.6, subd. (e)(10); *Browing-Ferris Industries v. City Council of City of San Jose* (1986) 181 Cal. App.3d 852, 866 [226 Cal.Rptr. 575]; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 153, 155 [39 Cal.Rptr.2d 54]).

VI.

FINDINGS REQUIRED UNDER CEQA

Public Resources Code section 21002 provides that “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects.” (Emphasis added.) The same statute states that the procedures required by CEQA “are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will *avoid*

or *substantially lessen* such significant effects” (emphasis added). Section 21002 goes on to state that “in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects.”

The mandate and principles announced in Public Resources Code section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required (see Pub. Resources Code, § 21081, subd. (a); CEQA Guidelines, § 15091, subd. (a)). For each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The first such finding is that “[c]hanges or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR” (CEQA Guidelines, § 15091, subd. (a)(1)). The second permissible finding is that “[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency” (CEQA Guidelines, § 15091, subd. (a)(2)). The third potential finding is that “[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR” (CEQA Guidelines, § 15091, subd. (a)(3)). Public Resources Code section 21061.1 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors.” CEQA Guidelines section 15364 adds another factor: “legal” considerations (see also *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 565 [276 Cal.Rptr. 410]).

The concept of “feasibility” also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project (see *City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 [83 Cal.Rptr. 898]). “ ‘[F]easibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors” (*Ibid.*; see also *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715 [29 Cal.Rptr.2d 182]).

The CEQA Guidelines do not define the difference between “avoiding” a significant environmental effect and merely “substantially lessening” such an effect. The City must therefore glean the meaning of these terms from the other contexts in which the terms are used. Public Resources Code section 21081, on which CEQA Guidelines section 15091 is based, uses the term “mitigate” rather than “substantially lessen.” The CEQA Guidelines therefore equate “mitigating” with “substantially lessening.” Such an understanding of the statutory term is consistent with the policies underlying CEQA, which include the policy that “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation

measures available which would substantially lessen the significant environmental effects of such projects” (Pub. Resources Code, § 21002).

For purposes of these findings, the term “avoid” refers to the effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less than significant level. In contrast, the term “substantially lessen” refers to the effectiveness of such measure or measures to substantially reduce the severity of a significant effect, but not to reduce that effect to a less than significant level. These interpretations appear to be mandated by the holding in *Laurel Hills Homeowners Association v. City Council* (1978) 83 Cal.App.3d 515, 519-527 [147 Cal.Rptr. 842], in which the Court of Appeal held that an agency had satisfied its obligation to substantially lessen or avoid significant effects by adopting numerous mitigation measures, not all of which rendered the significant impacts in question less than significant.

Although CEQA Guidelines section 15091 requires only that approving agencies specify that a particular significant effect is “avoid[ed] or substantially lessen[ed],” these findings, for purposes of clarity, in each case will specify whether the effect in question has been reduced to a less than significant level or has simply been substantially lessened but remains significant.

Moreover, although section 15091, read literally, does not require findings to address environmental effects that an EIR identifies as merely “potentially significant,” these findings will nevertheless fully account for all such effects identified in the Final EIR (FEIR).

In short, CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modifications or alternatives are not required, however, where such changes are infeasible or where the responsibility for modifying the project lies with some other agency (CEQA Guidelines, § 15091, subd. (a), (b)).

With respect to a project for which significant impacts are not avoided or substantially lessened either through the adoption of feasible mitigation measures or a feasible environmentally superior alternative, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project’s “benefits” rendered “acceptable” its “unavoidable adverse environmental effects” (CEQA Guidelines, §§ 15093, 15043, subd. (b); see also Pub. Resources Code, § 21081, subd. (b)). The California Supreme Court has stated that, “[t]he wisdom of approving . . . any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced” (*Goleta, supra*, 52 Cal.3d 553, 576).

VII.

LEGAL EFFECTS OF FINDINGS

To the extent that these findings conclude that proposed mitigation measures outlined in the EIR are feasible and have not been modified, superseded or withdrawn, the City (or “decision makers”) hereby binds itself and any other responsible parties, including the applicant and its successors in interest (hereinafter referred to as “Applicant”), to implement those measures. These findings, in other words, are not merely informational or hortatory, but constitute a binding set of obligations that will come into effect when the City adopts the resolution(s) approving the project.

The adopted mitigation measures are express conditions of approval. Other requirements are referenced in the mitigation monitoring reporting program adopted concurrently with these findings and will be effectuated through the process of implementing the project.

The mitigation measures are referenced in the mitigation monitoring and reporting program adopted concurrently with these findings, and will be effectuated both through the process of implementing the Otay Ranch GDP and through the process of constructing and implementing the proposed project.

VIII.

MITIGATION MONITORING PROGRAM

As required by Public Resources Code section 21081.6, subd. (a)(1), the City, in adopting these findings, also concurrently adopts a mitigation monitoring and reporting program (MMRP) as prepared by the environmental consultant under the direction of the City. The program is designed to ensure that during project implementation, the applicant and any other responsible parties comply with the feasible mitigation measures identified below. The program is described in the document entitled *Villages Two, Three, and a portion of Four SPA Plan Mitigation Monitoring Reporting Program*. The City will use the MMRP to track compliance with project mitigation measures. The MMRP will be available for public review during the compliance period.

The monitoring program is dynamic in that it will undergo changes as additional mitigation measures are identified and additional conditions of approval are placed on the project throughout the project approval process. The monitoring program will serve as a dual purpose of verifying completion of the mitigation measures for the proposed project and generating information on the effectiveness of the mitigation measures to guide future decisions. The

program includes monitoring team qualifications, specific monitoring activities, a reporting system, and criteria for evaluating the success of the mitigation measures.

IX.

SIGNIFICANT EFFECTS AND MITIGATION MEASURES

SUMMARY OF EFFECTS

The Final EIR identified a number of direct and indirect significant environmental effects (or “impacts”) resulting from the proposed project. Some of these significant effects can be fully avoided through the adoption of feasible mitigation measures. Others cannot be fully mitigated or avoided by the adoption of feasible mitigation measures or feasible environmentally superior alternatives. However, these effects are outweighed by overriding considerations set forth in Section XII below. This Section (IX) presents in greater detail the City Council’s findings with respect to the environmental effects of the project.

The project will result in significant environmental changes with regard to the following issues: land use; landform alteration/aesthetics; biological resources; cultural resources; geology and soils; paleontological resources; agricultural resources; housing and population; water resources and water quality; traffic, circulation and access; air quality; noise; and utilities and public services (potable water, recycled water, sewer, integrated waste management, law enforcement, fire protection and emergency medical services, schools, library service, and parks and recreation) and hazards/risk of upset. These significant environmental changes or impacts are discussed in the Draft EIR in Table 1-2, pages 1-11 through 1-35, and Chapter 5, Environmental Impact Analysis, pages 5.1-1 through 5.14-360. No significant effects were identified for mineral resources and gas and electricity services. The proposed project will result in significant unmitigable impacts to land use, agricultural resources, air quality, landform alterations/aesthetics, biological resources, and water supply.

Land Use

Implementation of the proposed SPA Plan and Composite TM will result a significant change in character of the site from undeveloped to urban uses. The overall change in the character and use of the site from rural agricultural to urban will have a significant cumulative land use impact as identified in the GDP Program EIR (EIR #90-01).

Landform Alteration/Aesthetics

While the proposed SPA Plan would be in accordance with the adopted Otay Ranch GDP and consistent with adjacent and planned development, a significant visual character and landform

impact would result from implementation of the proposed SPA Plan and Composite TM. Development of the SPA Plan and the Composite TM permanently alter the natural landform of the site, through grading, resulting in a significant impact. Implementation of the SPA Plan would have a significant impact resulting from field lighting and general illumination at the high school stadium and baseball field.

Biological Resources

The proposed SPA Plan and Composite TM would have a substantial adverse effect, both directly and through habitat modifications, on species identified as candidate, sensitive, and special status species in the Otay Ranch RMP, the City's Subarea Plan, and by CDFG and USFWS. The project would have a substantial adverse effect on riparian habitats and other sensitive natural communities identified in the Otay Ranch RMP, the City's Subarea Plan, and by CDFG and USFWS. The project would have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act, including jurisdictional waters and vernal pools.

Cultural Resources

One historic archaeological site was identified within the proposed project site. This site has been tested and determined to be not significant under CEQA; therefore, the project will not result in direct or cumulatively significant impacts to archaeological resources that have been identified as significant. However, the proposed project could result in significant impacts to unknown important subsurface archaeological materials that may be encountered during grading and excavation activities for the project.

Geology and Soils

Potentially significant construction-related direct impacts to geology and soils at the site will result from the presence of compressible and expansive soils and the potential for settlement and landslides to occur. Additionally, the current conceptual design would require mass grading above portions of the tunnel that contains the San Diego waterline. Impacts resulting from the grading above portions of the waterline would be eliminated if the waterline were relocated.

Paleontological Resources

Grading activities associated with the development of the proposed SPA Plan and Composite TM may directly impact fossils and other paleontological resources potentially buried in the Otay formation, Sweetwater Formation, and San Diego Formation.

Agricultural Resources

The proposed project will result in the direct loss of Farmland of Local Importance and Grazing Land to urban uses. The loss of agricultural land and land suitable for the production of crops associated with the project will also contribute to the cumulatively significant impact identified in the GDP Program EIR (EIR #90-01) due to the incremental and irreversible loss or impairment of such agricultural resources.

Water Resources and Water Quality

Project implementation will introduce landscaping, impermeable surfaces, and urban activities to undeveloped land, as well as new pollutant sources, such as automobiles and household products, which will result in significant long-term, direct and cumulative impacts. Impermeable surfaces will decrease the amount of infiltration occurring at the project site and will lead to increased runoff rates and the potential for pollutants to be introduced to water sources.

Traffic, Circulation, and Access

Absent mitigation, approval of the project will result in significant direct impacts to traffic at the intersections identified in the Draft EIR, Table 5.10-14. In addition, the Draft EIR, Table 5.10-15, summarizes the significant street segment impacts of the project. The project also will contribute to significant cumulative traffic impacts on I-805. In addition, access-related impacts would occur if appropriate lane configurations are not provided at the project driveways.

Air Quality

The proposed project will result in temporary and long-term cumulative air quality impacts, as stated in the Draft EIR, page 5-263. The proposed project is not consistent with the growth projections of the local regional air quality plan which is considered a significant impact. Construction and grading activities will result in temporary emissions from equipment exhaust emissions and short-term fugitive dust impacts. Operation of the project will result in long-term direct and cumulative emissions from project-related vehicular trips. Once the project area is built out, the project will contribute to long-term cumulative operational emissions, primarily from vehicle emissions that will exceed SCAQMD thresholds. The GDP Program EIR (EIR #90-01) identified significant direct and cumulative impacts on regional air quality from build out of the Otay Ranch.

Noise

Construction activities would create short-term noise increases near construction areas. Additionally, traffic-generated noise along Olympic Parkway, Birch Road, La Media Road, Heritage Road, and several internal streets will cause a significant direct noise impact on proposed residential uses within the project area. Noise levels from active uses associated with

the high school stadium and the proposed community park, and from traffic noise from the industrial uses may exceed noise level standards and impact the adjacent residential uses.

Utilities and Public Services

Potable Water/Recycled Water: The projected water demand could result in significant direct impacts on water service, if water facilities to serve the project are not constructed prior to demand. The WSAV Report indicated that the increase in water demand is consistent with the projected water demand included in the OWD 2000 UWMP and the WRMP. The same finding can also be made under the OWD 2005 UWMP. The WSAV Report relied on water supply forecasts based on the projected potable water demands supplied with imported water received from SDCWA. However, as discussed above, the SDCWA relies in part on the IID water transfer and other agreements that are being challenged in court. As a result, the assumption that the IID water transfer and other agreements will be available is questionable due to litigation uncertainty, and it is possible that the identified water supplies may not be available as anticipated, despite the urban water management planning conducted by MWD, SDCWA, and OWD. If the litigation were to invalidate identified and available water supplies, a significant water supply impact would result.

Recycled Water/Sewer: The proposed project would result in an incremental increase in the use of recycled water and place additional demands on water storage and pumping facilities. The increase in use of recycled water has been planned for by the OWD and will not have a significant impact. However, the impact to recycled water storage and distribution facilities would be significant if construction of new facilities does not coincide with the development phasing of the proposed SPA Plan outlines in the project's PFFP.

Development of the proposed SPA Plan and Composite TM would result in an increase in sewage generation. There is sufficient capacity in the Poggi Canyon and Wolf Canyon/Salt Creek Interceptors to accommodate the proposed SPA Plan. The Poggi Canyon Interceptor would adequately serve the Village Four community park on an interim basis.

The southerly portion of Village Two and Village Three cannot be developed until completion of the Heritage Road sewer line and connection to the Wolf Canyon/Salt Creek Interceptor.

Law Enforcement: The proposed project will result in significant direct impacts to law enforcement due to the increase in calls for service and the additional travel time required to answer these calls.

The Chula Vista Fire Department does not currently meet the threshold standard for response time for the City, including the Otay Ranch community. However, as population growth in the service area warrants, fire stations would be constructed within Village Nine of the Otay Valley parcel and within Village Thirteen of the Proctor Valley parcel. These stations would help ensure adequate service within the requirements of the GMOC threshold standards. Impacts to fire and

emergency medical services would be significant if construction of these facilities does not coincide with the project's anticipated population growth and increased demand for services.

Schools: Project implementation would result in a significant impact to schools unless construction of facilities coincides with student generation and associated service demands.

Library: A significant impact would result from the development of the proposed SPA Plan and the Composite TM if construction of new library facilities and provision of additional documents does not coincide with project implementation and associated population growth.

Hazards/Risk of Upset: The project will result in a direct impact to public health and safety due to soil contamination at the project site.

Parks and Recreation: Project implementation of the proposed SPA Plan and the Composite TM would generate increased demand for parks and recreation facilities. A significant impact could result if dedication of parkland and construction of new facilities does not coincide with project implementation and project population growth.

Hazards/Risk of Upset

There is a potential for agriculturally developed portions of Village Three to be impacted by residual agricultural, including soil augmenting and chemicals. Elevated levels of organochlorine pesticides were present in the soils at the Village Four site. Soil samples taken from the Village Four Community Park site exhibited concentrations of toxaphene exceeding one-quarter of the residential PRGs. Concentrations of OCPs exceeding residential PRGs are generally limited to the upper two feet of soil. The concentrations of the pesticides in the soils at the Village Four Community Park Site would be considered a significant risk to public safety.

DETAILED ISSUES DISCUSSION

Landform Alteration/Aesthetics

Thresholds of Significance:

Threshold 1: Have a substantial adverse effect on a scenic vista;

Threshold 2: Substantially degrade scenic resources, including but not limited to trees, rock outcroppings, or historic buildings within a state scenic highway;

Threshold 3: Substantially degrade the existing visual character or quality of the site and its surroundings;

Threshold 4: Create a new source of substantial light or glare which would adversely affect day- or nighttime views in the area.

The Otay Ranch GDP Program EIR found that implementation of the Otay Ranch GDP would result in significant unmitigable impacts to landform/visual resources. This EIR tiers from the Otay Ranch GDP Program EIR; therefore, significant impacts may result if the proposed SPA Plan would:

Threshold 5: Alter areas of sensitive landforms; and

Threshold 6: Grade steep slopes that may be visible from future development and roadways.

Impact: Create a new source of substantial light or glare which would adversely affect day- or nighttime views in the area.

Implementation of the proposed SPA Plan would have a direct, significant impact resulting from field lighting and general illumination at the high school stadium and baseball field (Section 5.2, pages 5-63 through 5-64).

Explanation:

Development of the proposed SPA Plan and the Composite TM would result in long-term direct potentially significant nighttime view impacts. The proposed project would contribute only a minor change to night-sky illumination. The proposed SPA Plan includes lighting performance standards to address the proposed project's contribution to nighttime lighting. Currently, the proposed project site and vicinity are exposed to nighttime lighting from Villages One, Five, and parts of Six to the north and northeast of the project site. Village Seven is under construction to the east, and night lighting would also occur from this village once fully developed.

In addition, the proposed community park in Village Four would include uses that would require court lighting at night. Sport field and court lighting would be in operation from 6:30 P.M. to 10:30 P.M. seven days a week. During winter months park lighting may be turned on earlier. Park site security lighting in parking areas, walkways, and on exterior building walls or under eaves would be in operation from dusk to dawn. Radiating light would be visible from the proposed residences to the north of the park across Wolf Canyon and to planned or residential development south of the park within Village Four, which represents a direct, significant impact.

The Otay Ranch High School athletic fields could also result in lighting impacts to on-site residences. The stadium and baseball field lighting would be visible for short periods of time during evening activities. Radiating light would be visible from the proposed residences not directly adjacent to the high school. Lighting associated with the high school represents a direct, significant impact.

Mitigation Measures:

5.2-2 Prior to approval of the site-specific master plan for the community park in Village Four, the applicant(s) shall provide funding through the payment of PAD fees for the preparation of a lighting plan that shows the proposed height, location, and intensity of sport field and court lighting on-site. Current sport facility lighting technologies including

reflector devices that serve to reduce the occurrence of light spill and glare shall be used where appropriate. The plan shall be completed to the satisfaction of the Director of Planning and Building and Director of General Services.

Finding:

As identified in Section 5.0, Subchapter 5.2 of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

Impact: Alter areas of sensitive landforms; or grade steep slopes that may be visible from future development and roadways.

Development of the proposed SPA Plan would permanently alter the natural landform of the site through grading, resulting in a direct, significant impact (Section 5.2, pages 5-64 through 5-69).

Explanation:

Development of the proposed SPA Plan would require grading of the project area and would involve the cut and fill of approximately 18,428,000 cubic yards. This grading would permanently alter the natural landform of the site which would be significant. A portion of Wolf Canyon would be filled to a height of 400 feet, approximately 90 to 100 feet above the canyon bottom. A 100-foot-high slope would be created within Wolf Canyon. The ranch-wide steep slope preservation standard would be met and, therefore, there would be no significant impact associated with this policy. However, the filling of Wolf Canyon is considered a significant landform alteration impact.

Mitigation Measures:

5.2-1 Prior to approval of grading plans, the applicant(s) shall prepare grading and building plans that conform to the landform grading guidelines contained in the proposed SPA Plan, the City's Grading Ordinance, Otay Ranch GDP, and General Plan. The plans shall be prepared to the satisfaction of the Director of Planning and Building and the City Engineer.

5.2-3 Prior to the approval of the first rough grading permit, or first B-map, the applicant(s) shall have prepared, submitted to and received approval from the Director of General Services of a comprehensive Landscape Master Plan (LMP). Landscaping shall occur with each phase of development in accordance with the LMP. The contents of the LMP shall conform to the City staff checklist and include the following major components:

- Maintenance Responsibility Plan
- Master Irrigation Plan
- Master Planting Plan

- Brush Management Plan
- Hardscape Concept and Trail Plan
- Utility Coordination Plan
- Conceptual Wall and Fence Plan, and
- Monumentation and Signage Plan

Finding:

While mitigation measure 5.2-1 and 5.2-3 are feasible and will be completed, they do not substantially lessen the significant environmental effect as identified in the final EIR. The only mitigation available for this impact is the No Project alternative. Pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible. Adoption of the No Project alternative would not achieve any of the objectives of the project as identified in Section 3.3 of the EIR.

BIOLOGICAL RESOURCES

Thresholds of Significance:

- Threshold 1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Threshold 2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Threshold 3: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Threshold 4: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Threshold 5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

Threshold 6: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

Impact: Have a substantial adverse effect on Sensitive Species and Habitats, including Riparian Habitats.

The proposed SPA Plan and Composite TM would have a substantial adverse effect, both directly and through habitat modifications, on species identified as candidate, sensitive, and special status species in the Otay Ranch RMP, the City's Subarea Plan, and by CDFG and USFWS (Section 5.3, page 5-94 through 5-96).

The project would have a substantial adverse effect on riparian habitats and other sensitive natural communities identified in the Otay Ranch RMP, the City's Subarea Plan, and by CDFG and USFWS (Section 5.3, page 5-96 through 5-97).

Explanation:

Implementation of the proposed SPA Plan would result in significant direct impacts to sensitive plant species. These impacts include the following species that are identified as covered under the Subarea Plan: Otay tarplant, variegated dudleya and San Diego barrel cactus. In addition, Otay tarplant and variegated dudleya are identified in the City's Subarea Plan as Narrow Endemics. Impacts to these three species would be significant.

Surveys conducted for the proposed project confirmed the presence of coastal California gnatcatcher, quino checkerspot butterfly, sharp-shinned hawk, rufous-crowned sparrow, loggerhead shrike, California horned lark, and San Diego black-tailed jackrabbit. In addition, one raptor nest in the central portion of the Village Two site was observed. Implementation of the proposed project would result in the direct loss of habitat for all of the sensitive animals discussed in the Biology section (Section 5.3), of the EIR, including twelve pairs of coastal California gnatcatchers and one individual Quino checkerspot butterfly. These impacts are considered significant.

In addition to survey data collected for the proposed SPA Plan, previous biological data is also available for the site, including data used in preparation of the Otay Ranch GDP and RMP and accompanying Otay Ranch GDP Program EIR (Program EIR #90-01). Information on species identified in previous surveys is provided in Section 5.3.1 of Program EIR #90-01, and in Appendix B-1 of the EIR. Impacts to sensitive wildlife species that are expected to occur based on previous occurrence data, but were not found in recent surveys, are considered to be significant due to the loss of potential habitat for these species.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.3, page 125]

- 5.3-1 Prior to recording each final map, the property owner(s) shall either convey land within the Otay Ranch RMP Resource Preserve at a ratio of 1.188 acres for each acre of development area or pay a fee in lieu.
- 5.3-2 Prior to issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable resources, including Narrow Endemic Species, *Plantago erecta* (QCB larval host plant), south coast saltscale and smooth-stemmed fagonia (including plant materials and soils/seed bank), the project property owner (s) shall be required to develop and implement a Resource Salvage Plan. The Resource Salvage Plan shall, at a minimum, evaluate options for plant salvage and relocation, including native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the preserve. The Resource Salvage Plan shall include incorporation of relocation efforts for non-covered species, including south coast saltscale and smooth-stemmed fagonia. Relocation efforts may include seed collection or transplantation to a suitable receptor site and will be based on the most reliable methods of successful relocation. The program shall also contain a recommendation for method of salvage and relocation/ application based on feasibility of implementation and likelihood of success. The program shall include, but not be limited to, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. The program shall be subject to review and approval of the City's Director of Planning and Building.
- 5.3-3 Pursuant to the requirements of the RMP, mitigation beyond the conveyance requirements for impacts to maritime succulent scrub shall consist of on-site restoration at 1:1 ratio. If final design plans indicate that impacts will be avoided, this measure will not be applicable. Prior to issuance of land development permits, including clearing or grubbing and grading permits, that impact maritime succulent scrub resources, the developer(s) shall prepare and implement a restoration plan to restore 3.4 acres of maritime succulent scrub (1.5 acres from impacts within the Otay Ranch Company ownership and 1.9 acres within the Flat Rock Land Company ownership), pursuant to the Otay Ranch RMP restoration requirements. The maritime succulent scrub restoration plan shall be approved by the City's Director of Planning and Building, and shall include an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures.
- 5.3-4 Prior to issuance of land development permits, including clearing or grubbing and grading permits, in portions of the SPA Plan area that are adjacent to the Preserve, the property owner shall install fencing in accordance with CVMC 17.35.030.

Prominently colored, well-installed fencing shall be in place wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary and permanent fencing shall be shown on grading plans. Prior to release of grading bonds, a qualified biologist shall provide evidence that work was conducted as authorized under the approved land development permit and associated plans.

5.3-5 Prior to issuance of grading permits, a Storm Water Pollution Prevention Plan (SWPPP) shall be developed, approved, and implemented during construction to control storm water runoff, such that erosion, sedimentation, pollution, etc. are minimized. The following measures contained in the Edge Plans shall be implemented to avoid the release of toxic substances associated with urban runoff:

- Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.
- Where deemed necessary, storm drains shall be equipped with silt and oil traps to remove oils, debris and other pollutants. Storm drain inlets shall be labeled “No Dumping-Drains to Ocean.” Storm drains shall be regularly maintained to ensure their effectiveness.
- The parking lots shall be designed to allow storm water runoff to be directed to vegetative filter strips and/or oil-water separators to control sediment, oil, and other contaminants.
- Permanent energy dissipaters shall be included for drainage outlets.
- The SPA Plan area drainage basins shall be designed to provide effective water quality control measures. Design and operational features of the drainage basins shall include design features to provide maximum detention time for settling of fine particles; maximize the distance between basin inlets and outlets to reduce velocities; and establish maintenance schedules for periodic removal of sedimentation, excessive vegetation and debris.

5.3-6 Prior to issuance of land development permits, including clearing or grubbing and grading permits, the following notes shall be included on the plans to the satisfaction of the Environmental Review Coordinator:

(1) A qualified biologist shall be on-site to monitor all vegetation clearing and periodically thereafter to ensure implementation of appropriate resource protection measures.

(2) Dewatering shall be conducted in accordance with standard regulations of the RWQCB. A permit to discharge water from dewatering activities will be required. This will minimize erosion, siltation, and pollution within sensitive communities.

(3) During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect sensitive vegetation from being inundated with sediment-laden runoff.

(4) Material stockpiles shall be covered when not in use. This will prevent fly-off that could damage nearby sensitive vegetation communities.

(5) Graded area shall be periodically watered to minimize dust affecting adjacent vegetation.

5.3-7 Lighting of all developed areas adjacent to the Preserve shall be directed away from the Preserve, wherever feasible and consistent with public safety. Where necessary, development shall provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the Preserve and sensitive species from night lighting. Consideration shall be given to the use of low-pressure sodium lighting. In compliance with the Chula Vista MSCP Subarea Plan, all lighting shall be shielded and directed away from the Preserve. Prior to issuance of improvement plans, a lighting plan and photometric analysis shall be submitted to the City's Environmental review Coordinator for review and approval. The lighting plan shall illustrate the location of the proposed lighting standards and type of shielding measures. Low-pressure sodium lighting shall be used if feasible and shall be subject to the approval of the City's Environmental Review Coordinator and City Engineer. No night-time construction lighting shall occur within the Preserve Edge.

5.3-8 Noise impacts adjacent to the Preserve lands shall be minimized. Berms or walls shall be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve. Construction activities shall include noise reduction measures or be conducted outside the breeding season of sensitive bird species. Based on current information, these conditions would be limited to areas within 500 feet of Wolf Canyon. When clearing, grading or grubbing activities occur during the breeding season for coastal California gnatcatcher (February 15 to August 15, annually) or raptors (January 15 to July 31, annually), nesting bird surveys shall

be conducted by a qualified biologist to identify active nest locations. Construction activities shall be restricted such that noise levels related to those activities are below 60 average sound level (L_{eq}) at the location of the active nest site.

5.3-9 Prior to issuance of land development permits, including clearing or grubbing and grading permits, the property owner shall submit evidence showing that the following features of the Preserve Edge Plan have been incorporated into grading and landscaping plans:

- (1) No invasive non-native plant species shall be introduced into areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve shall be planted with native species per the Edge Plan that reflect the adjacent native habitat.
- (2) All fuel modification shall be incorporated into development plans and shall not include any areas within the Preserve.

5.3-10 Prior to issuance of grading permits, the property owner shall submit wall and fence plans depicting appropriate barriers to prevent unauthorized access into the Preserve. The wall and fence plans shall illustrate the locations and cross sections of proposed walls and fences along the Preserve boundary, subject to the approval the City's Director of Planning and Building.

Finding:

As identified in Section 5.0, Subchapter 5.3 of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

Impact: Effects on Federal and State Protected Wetlands

The project would have a direct, significant adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act, including jurisdictional waters and vernal pools (Section 5.3, pages 5-97 and 5-98).

Explanation:

Impacts to jurisdictional waters would occur as a result of implementation of the proposed SPA Plan, consisting of 0.5 acre of ephemeral and intermittent unvegetated stream channels, in addition to the 0.2 acre of alluvial scrub, mentioned above. Impacts to ephemeral and intermittent unvegetated waters and alluvial scrub are considered significant.

In Village Two, two vernal pools on the M2 mesa will be impacted by the proposed project, and one vernal pool within the K17 complex in Village Three will be impacted. Impacts to these

three vernal pools are considered significant under CEQA. The total surface area of the three pools is 203 square feet.

Avoidance and minimization of impacts to all of the vernal pool resources within Otay Ranch was considered in the development of the GDP. Because of the lack of resources and relative quality of the M2 and K17 pool complexes, these pool complexes were not included in the conservation planning. Instead, it was determined that enhancement and restoration of the J23, J24 or J25 pools on Otay Mesa would provide the best overall strategy for conservation of vernal pool resources within Otay Ranch.

The M2 and K17 pool complexes lack sensitive resources and were not identified for preservation in the RMP Mitigation for impacts to these pool complexes is identified in Section 5.3.5 of the EIR. The proposed mitigation option consisting of restoration within the J23, J24 or J25 pools on Otay Mesa would be consistent with mitigation identified in the RMP. In addition, optional mitigation is provided in consideration of proposed changes in conservation strategies for vernal pool complexes within Village 13.

Indirect, adverse edge effects to jurisdictional waters and vernal pools include potential runoff, sedimentation, erosion, exotics introduction, and habitat type conversion in the short and long term, particularly within the Wolf Canyon drainage. Indirect impacts to jurisdictional waters are considered significant.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.3, pages 128].

5.3-11 The City requires that impacts to wetlands be avoided to the maximum extent possible. When avoidance is not feasible, the property owner(s) shall be required to minimize impacts to the greatest extent possible and mitigate for loss of wetland habitat, including wetland habitat creation of at a 1:1 ratio for unvegetated waters of the U.S. and 3:1 for impacts to alluvial scrub. To mitigate direct impacts to jurisdictional waters, the following conditions would be required prior to issuance of land development permits, including clearing or grubbing and grading permits for any area impacting jurisdictional waters:

A total of 1.1 acres of wetlands shall be created. Prior to issuance of land development permits, including clearing or grubbing and grading permits that impacts jurisdictional waters, the developer(s) shall prepare a Wetlands Mitigation Plan to the satisfaction of the wetland resource agencies and the City's Director of Planning and Building. This plan shall include, but not be limited to, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures.

Prior to issuance of land development permits, including clearing or grubbing and grading permits for areas that impact jurisdictional waters, the property owner shall provide evidence that all required regulatory permits, such as those required under Section 404 of the federal Clean Water Act, Section 1600 of the California Fish and Game Code, and the Porter Cologne Water Quality Act.

5.3-12 One of the following options shall be implemented by the property owner(s) prior to issuance of land development permits, including clearing or grubbing and grading permits for areas impacting vernal pools:

- (1) **Option #1:** The property owner(s) shall restore 406 square feet of vernal pools within the J23, 24, or 25 pools (eastern Otay Mesa) or within the Village 13 (resort) planning area. The restoration would involve reconfiguration and reconstruction of the mima mounds and basins, removal of weedy vegetation, revegetation of the mounds with upland sage scrub species and inoculation of the pools with vernal pool species. The property owner shall prepare a Vernal Pool Mitigation Plan to the satisfaction of the resource agencies (if applicable/jurisdictional) and the City's Director of Planning and Building. The Plan shall include, but not be limited to an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures.
- (2) **Option #2:** The project property owner(s) shall purchase vernal pool mitigation bank credits within an approved mitigation bank. Evidence of the purchase and appropriate monitoring and maintenance requirements shall be provided to the Director of Planning and Building.

Finding:

As identified in Section 5.0, Subchapter 5.3 of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

CULTURAL RESOURCES

Thresholds of Significance:

Threshold 1: Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5. Including resources that are eligible for the California Register of Historic Resources and the National Register of Historic Places; and resources that are locally designated as historically significant; or the City of Chula Vista finds the resource historically significant based on substantial evidence.

Criteria for determining a resource is “historically significant” typically includes: (1) resources that are associated with an event or person of recognized significance; (2) resources that can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions; (3) resources that have a special or particular quality such as the oldest, best example, largest, or last surviving example of its kind; and (4) resources that are least 100 years old and possess substantial stratigraphic integrity; and/or involve important research questions that historical research has shown can be answered only with archaeological methods.

Threshold 2: Disturb any human remains, including those interred outside of formal cemeteries.

Impact: Historic or Archaeological Resources

One prehistoric site (CA-SDI-12,291B) and one historic site (11,384H) would be impacted by the proposed project (Section 5.4, pages 5-136 through 5-5-139).

Explanation:

There were 16 prehistoric sites identified within the SPA Plan area. As a result of the testing of these sites, only one site, CA-SDI-12,291B, was determined to be a significant historic resource. Impacts to CA-SDI-12,291b would be considered significant. The remaining 15 sites were determined not to be significant historic resources, however, grading and excavation activities associated with the proposed project could result in direct, significant archaeological impacts to unknown subsurface deposits. There was one historic site identified within the SPA Plan area. The historic site, located on the Village Two project area, consists of the remains of the Otay Ranch Farm Complex. Appendix I, of the February 2004(a) report for cultural resources at the Otay Ranch Village Two SPA, concluded that no historically significant remaining components were visible during site testing. However, the proposed project could result in significant archaeological impacts because the site may contain masked subsurface deposits that may be encountered during grading and excavation activities for the proposed project.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.4, pages 140].

Preservation is the preferred means of avoiding impacts to archaeological site SDI-12,291B. This approach would involve redesign of the project to avoid impacts to Site SD-12,291B. The following measures outline a procedure for ensuring that adverse impacts are avoided for the proposed SPA Plan.

Preservation is the preferred means of avoiding impacts to archaeological site SDI-12,291b. This approach would involve redesign of the project to avoid impacts to Site SD-12,291b. In the

event that preservation on-site is infeasible, the following measures outline a procedure for ensuring that adverse impacts are avoided for the proposed SPA Plan.

5.4-1 In the event that in place preservation is infeasible, the following data recovery program will mitigate adverse impacts to SDI-12,291b. These tasks need to be completed prior to the issuance of grading permits for the portion of Village Three on which the site is located.

- a) Prior to the issuance of grading permits, a Registered Professional Archaeologist (RPA) shall prepare a research design for the data recovery of Site SDI-12,291b to the satisfaction of the Environmental Review Coordinator. This research design shall identify specific research questions to be addressed through the data recovery process, the data collection and analyses needed to address those questions, and the means and location of curation of recovered materials. This research design shall be prepared prior to the initiation of the field investigation to the satisfaction of the Environmental Review Coordinator of the City of Chula Vista.
- b) Based on the approved research design, an excavation program shall be implemented that will result in a reliable sample of the site. It is anticipated that between two and four percent of the surface area of the mapped resource would be excavated, and that excavation would be completed by hand excavated one-by-one meter units, unless the questions developed for the research design require a modified sampling strategy. All materials should be passed through a one-eighth-inch mesh screen, with all recovered materials catalogued and analyzed. If datable materials, faunal or floral remains, pollen, or other cultural significant materials are found, appropriate special analysis shall be completed.
- c) A detailed report of findings shall be completed and the results made available to the public and scientific community. Curation of recovered materials shall be accomplished to the satisfaction of the Environmental Review Coordinator of the City of Chula Vista. Curation of collections from the project will be curated in a facility approved in advance by the City.

5.4-2 A qualified archaeological monitor shall be on-site during initial grading of CA-SDI-11,384H. If historic archaeological material is encountered during grading, all grading in the vicinity as determined and defined by the archaeologist shall stop and its importance shall be evaluated, and suitable mitigation measures shall be developed and implemented, if necessary. Cultural material collected shall be permanently curated at an appropriate repository. Curation of collections from the project will be curated in a facility approved in advance by the City.

Finding:

As identified in Section 5.0, Subchapter 5.4 of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that

will substantially lessen or avoid the significant effect as identified in the EIR to a level of insignificance.

GEOLOGY AND SOILS

Thresholds of Significance:

Threshold 1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault,
- Strong seismic ground shaking,
- Seismic-related ground failure, including liquefaction, or
- Landslides;

Threshold 2: Result in substantial soil erosion or the loss of topsoil;

Threshold 3: Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;

Threshold 4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating a substantial risk to life or property; and

Threshold 5: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for disposal of wastewater.

Impact: Result in substantial soil erosion or the loss of topsoil; be located on expansive soil; or have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for disposal of wastewater.

The presence of compressible and expansive soils and the potential for settlement and landslides to occur at the project site is considered a potentially significant direct impact. The current project design would require mass grading above portions of the tunnel that contains the San Diego waterline, which would be a direct, significant impact (Section 5.5, pages 5-152 and 5-153).

Explanation:

Significant impacts to geology and soils could result from project development on compressible and expansive soils. Expansive soils, which include alluvium, colluvium, and claystone occur throughout the project site. Expansive soils may adversely impact structural slabs and foundations and roadways due to their swelling characteristics. The adverse effects of slope creep, landslides or lateral fill extension may also occur with expansive soil fills and cuts.

Additionally, the current conceptual design would require mass grading above portions of the tunnel that contains the San Diego waterline, including excavation of formational soils and the placement of fill soils. A potentially significant impact could result from the grading above portions of the existing City of San Diego waterline. Implementation of project-specific design mitigation measures, as described below, would reduce or avoid significant impacts. Impacts resulting from the grading above portions of the waterline would be eliminated if the waterline were relocated.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings (EIR, Subchapter 5.5, pages 5-155 through 5-156).

- 5.5-1 Prior to the issuance of the grading permit, the applicant(s) shall verify that the applicable recommendations of the preliminary geotechnical investigations for Villages Two and Three prepared by Geocon (August 18, 2003 and September 3, 2003, respectively) and the preliminary geotechnical investigation for the Parcel A portion of Village Three, prepared by Pacific Soils Engineering, Inc., (October 24, 2003) have been incorporated into the project design and construction documents to the satisfaction of the City Engineer. Recommendations include, but are not limited to:
- a) During construction liquefiable soils within the colluvium/alluvium shall be removed and replaced with compacted fill.
 - b) During construction highly expansive soils shall be kept below finish grade. Where excavations expose highly expansive materials at finish grade, these materials shall be excavated a minimum of four feet below finish grade. Where excavations expose very highly expansive material at finish grade, these materials shall be excavated a minimum of five feet below finish grade. The excavations shall be replaced with a compacted fill soil that has a low to moderate expansion potential.
 - c) During construction, the developer shall remove loose, compressible soils and replace as compacted fill in areas that will be subjected to new fill or structural loads.

- d) During grading the developer shall construct earthen buttresses on unstable slopes with drains installed, as warranted, at the rear of the buttresses to control groundwater.
- e) Grading of building pads shall be designed so that foundations bear entirely on a relatively uniform depth of compacted fill. This may be accomplished by overexcavating the cut portion of the building pad.

5.5-2 If the existing City of San Diego waterline is not relocated, the following mitigation measure shall be required to reduce impacts associated with grading above portions of the existing waterline:

Prior to the issuance of the grading permit, the applicant(s) shall consult with a pipeline specialist to evaluate the structural integrity of the existing City of San Diego waterline pipe and tunnel and the effect of the fill loads. A deformation analysis shall be performed once final grades have been determined.

5.5-3 Prior to the issuance of the grading permit, the applicant(s) shall verify that the design of any structures would comply with the requirements of the Uniform Building Code and standard practices of the Association of Structural Engineers of California.

Finding:

As identified in Section 5.0, Subchapter 5.5 of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

PALEONTOLOGICAL RESOURCES

Thresholds of Significance:

The proposed project could have a significant effect on paleontological resources, if it would:

Threshold 1: Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Impact: Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

The proposed grading of the Otay Formation sandstone, the San Diego Formation, and the Sweetwater Formation would move material with high sensitivity for paleontological resources, which is considered a direct, significant impact (Section 5.6, page 5-160)

Explanation:

The project site is underlain by the Otay Formation, San Diego Formation, and Sweetwater Formation, which are characterized by an upper portion with high paleontological resource sensitivity and a lower portion with moderate resource sensitivity. The occurrence of fossils within the covered bedrock cannot be evaluated prior to exposure. Areas of the Otay Formation with accumulations of colluvial and alluvial deposits in the drainage course bottoms, the San Diego Formation, the Sweetwater Formation, and Terrace Deposits may be exposed during grading and construction activities. The proposed grading of the Otay Formation sandstone, the San Diego Formation, and the Sweetwater Formation would move material with high sensitivity for paleontological resources. Exposure of these formations would likely result in the unearthing of fossil remains, which could damage the fossils if they were not recovered and salvaged. Destruction of the paleontological resources from these formations would be a direct, long-term, potentially significant impact.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.6, page 160]:

5.6-1 Prior to approval of the grading permit, the applicant(s) shall incorporate into grading plans to the satisfaction of the City of Chula Vista's Engineer and Environmental Review Coordinator, the following:

- a) Prior to issuance of any grading permits, the applicant(s) shall confirm to the City of Chula Vista that a qualified paleontologist has been retained to carry out the following mitigation program. The paleontologist shall attend pregrade meetings to consult with grading and excavation contractors. (A qualified paleontologist is defined as an individual with a M.S. or Ph.D. in paleontology or geology who is familiar with paleontological procedures and techniques.)

- b) A paleontological monitor shall be on-site at all times during the original cutting of previously undisturbed sediments of highly sensitive geologic formations (i.e., Otay, Sweetwater, and San Diego Formations) to inspect cuts for contained fossils. The paleontological monitor shall work under the direction of a qualified paleontologist. The monitor shall be on-site on at least a half-time basis during the original cuts in deposits with a moderate resource sensitivity (i.e., Terrace Deposits). (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.)

In the event that fossils are discovered in unknown sensitive formations, it may be necessary to increase the per-day field monitoring time. Conversely, if fossils are not discovered, the monitoring may be reduced.

- c) When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In instances where recovery requires an extended salvage time, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Where deemed appropriate by the paleontologist (or paleontological monitor), a screen-washing operation for small fossil remains shall be set up.
- d) Prepared fossils, along with copies of all pertinent field notes, photographs, and maps, shall be deposited (with the applicant(s) permission) in a scientific institution with paleontological collections. A final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussion of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.

Finding:

As identified in Section 5.0, Subchapter 5.6 of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

AGRICULTURE

Impact:

The proposed project will result in the direct loss of Farmland of Local Importance and Grazing Land to urban uses. The loss of agricultural land and land suitable for the production of crops associated with the project will also contribute to the cumulatively significant impact identified in the GDP Program EIR (EIR #90-01) due to the incremental and irreversible loss or impairment of such agricultural resources.

Explanation:

Development of the SPA Plan and the Composite TM would result in a significant impact to agricultural resources, due to the loss of 858.8 acres of Farmland of Local Importance and the conversion of 321.72 acres of Grazing Land to urban uses. The loss of this acreage would result in a significant unavoidable impact due to the incremental and irreversible loss or impairment of Farmland of Local Importance and Grazing Land. This was previously addressed in the Otay Ranch GDP Program EIR and was determined to be significant and not fully mitigated. At that time, a statement of overriding considerations was adopted for this impact. Furthermore, noise, odors, insects, rodents, and chemicals associated with agricultural operations would create indirect, short-term, potentially significant impacts between the agricultural uses and urban uses.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.7, page 166]:

The following mitigation measure has been identified for the SPA Plan and the Composite TM to reduce the potentially significant, short-term impacts caused by adjacency of ongoing agricultural uses and urban uses:

5.7-1 The Agricultural Plan included in the SPA Plan shall be implemented as development proceeds in the proposed SPA Plan area. The following measures shall be implemented by the developer(s) to the satisfaction of the City of Chula Vista's Director of Planning and Building:

- a) A 200-foot buffer between developed property and ongoing agriculture operations shall be maintained. The use of pesticides shall comply with federal, state, and local regulations;
- b) Vegetation shall be used to shield adjacent urban development (within 400 feet) from agriculture activities where pesticides are to be applied;
- c) Notification shall be given to adjacent property owners of potential pesticide application through newspaper advertisements; and
- d) Fencing shall be installed, where necessary, to ensure the safety of the SPA Plan area residents.

Finding:

As identified in Section 5.0, Subchapter 5.7, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen some of the significant environmental effects as identified in the EIR. However, despite the above mitigation, the incremental and cumulative loss of agricultural lands is considered a significant unmitigable impact, and no other feasible mitigation measures are available to reduce these impacts to below a level of significance. This impact is discussed below in Section X, Cumulative Significant Effects and Mitigation Measures.

WATER RESOURCES AND WATER QUALITY

Thresholds of Significance

Threshold 1: Substantially alters the existing drainage pattern of the site or area, in a manner which would result in substantial erosion or siltation or substantially increases the rate or amount of surface runoff in a manner which would result in flooding or which would exceed the capacity of existing or planned storm water drainage systems or provides substantial additional sources of polluted runoff or otherwise substantially degrades water quality;

- Threshold 2: Violates any water quality standards or waste discharge requirements, including City of Chula Vista Engineering Standards for storm water flows and volumes;
- Threshold 3: Substantially depletes groundwater or interferes substantially with groundwater recharge;
- Threshold 4: Alters an existing 100-year floodplain or places structures within a 100-year flood hazard area which would impede or redirect flood flows; and
- Threshold 5: Exposes people or structures to a significant risk of loss, injury, or death involving flooding, and/or exposes people or structures to inundation by seiche, tsunami, or mudflow.

Impact:

Project implementation will introduce landscaping, impermeable surfaces, and urban activities to undeveloped land, as well as new pollutant sources, such as automobiles and household products, which will result in significant long-term, direct and cumulative impacts. Impermeable surfaces will decrease the amount of infiltration occurring at the project site and will lead to increased runoff rates and the potential for pollutants to be introduced to water sources (Section 5.9, page 5-179 through 5-181).

Explanation:

The proposed SPA Plan and Composite TM would convert an existing undeveloped site to an urban landscape with multiple land uses. In doing so, impermeable surfaces would be introduced to the project site, as well as new pollutant sources, such as automobiles and household products. Impermeable surfaces would decrease the amount of infiltration occurring at the project site and would lead to runoff rates and the potential for pollutants to be introduced to water sources. Therefore, the proposed SPA Plan and Composite TM has the potential to contribute to significant water quality impacts. Drainage at the site would be altered to direct stormwater runoff into the municipal storm drain system.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.9, page 5-183]:

- 5.9-1 Prior to issuance of a grading permit, a detailed drainage system design study shall be prepared to the satisfaction of the City Engineer and shall include but not be limited to:
- a) Peak runoff at each inlet, outlet, interceptor, concentration, or confluence point, both predevelopment and postdevelopment conditions; and

- b) The integration of the proposed system with the existing and proposed downstream drainage facilities to effectively control flows within the entire system.
 - c) Maps showing existing and postdevelopment conditions for existing topography and proposed grading plans incorporating a drainage system design with main lines and detention/desilting facilities pursuant to Section 3-202.1 of the Chula Vista Subdivision Manual; and on-site detention/desilting facilities shall be incorporated in the design for the various phases of construction and postconstruction.
- 5.9-2 Prior to the issuance of the first grading permit, the applicant(s) shall submit a SWPPP including assignment of maintenance responsibilities for review and approval by the City Engineer and the Director of Public Works. The SWPPP shall be consistent and fully comply with the requirements of the Clean Water Act and all requirements set forth in the General Construction Permit, the City of Chula Vista Storm Water Management and Discharge Control Ordinance (Storm Water Management Manual Ordinance), the City of Chula Vista Standard Urban Stormwater Management Plan (SUSMP) and the City of Chula Vista Development and Redevelopment Projects Storm Water Management Standards Requirements Manual (Storm Water Management Manual). BMPs identified in the SWPPP shall include but shall not be limited to the following:
- a) Temporary erosion control measures designed in accordance with the Chula Vista Grading Ordinance shall be employed for disturbed areas and shown on the grading plans.
 - b) No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.
- 5.9-3 Prior to the issuance of all subsequent permits and approvals associated with the project including but not limited to improvement plan approvals, construction permits, site plan approvals, design review approvals, conditional use permits, grading permits, the applicant of such permits, and/or approvals shall comply with the Clean Water Act, the Municipal permit, the General Construction Permit, and the Storm Water Management Ordinance and submit a SWPPP prior to the issuance of such permits and/or approvals in compliance with the City's Storm Water Management Manual and the SUSMP.

Finding:

As identified Section 5.0, Subchapter 5.9, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

TRAFFIC, CIRCULATION, AND ACCESS

Thresholds of Significance:

The criteria utilized to determine if a traffic impact at an intersection, street segment, or freeway is considered significant is based on City of Chula Vista standards. Both project specific and cumulative project impacts can be significant impacts. Additionally, the criteria differs depending on whether the timing of impacts are near-term or long-term. These criteria are outlined below.

Near Term (Study Horizon Year 0 to 4)

Intersections

A direct project impact to an intersection would occur if both of the following criteria are met:

1. Intersections
 - a. Project specific impact if both the following criteria are met:
 - i. Level of service is LOS E or LOS F
 - ii. Project trips comprise 5% or more of entering volume.
 - b. Cumulative impact if only #1 is met.
2. Street Lines/Segments

If the ADT methodology indicates LOS C or better, the impact is not significant. If the ADT methodology indicates LOS D, E, or F, the Growth Management Oversight Committee (GMOC) criteria should be used, which includes the following:

Project specific impact if all the following criteria are met:

- Level of service is LOS D for more than 2 hours or LOS E/F
- Project trips comprise 5% or more of segment volume
- Project adds greater than 800 ADT to segment
- Cumulative Impact if only No. 1 is met

3. Freeways

Project specific impact if both the following criteria are met:

- Freeway segment LOS is LOS E or LOS F
- Project comprises 5% or more of the total forecasted ADT on that freeway segment.
- Cumulative impact if only No. 1 is met.

1. Intersections

a. Project specific impact if both the following criteria are met:

- i. Level of service is LOS E or LOS F
- ii. Project trips comprise 5% or more of entering volume.

b. Cumulative impact if only No. 1 is met.

2. Street Lines/Segments

Use the planning analysis using the volume-to-capacity ratio methodology only. The GMOC analysis methodology is not applicable beyond a four-year horizon.

- Project specific impact if all three of the following criteria are met:
- Level of service is LOS D for more than 2 hours or LOS E/F
- Project trips comprise 5% or more of segment volume
- Project adds greater than 800 ADT to segment

Cumulative Impact if only No. 1 is met. However, if the intersections along a LOS D or LOS E segment all operate at LOS D or better, the segment impact is not considered significant since intersection analysis is more indicative of actual roadway system operations than street segment analysis. If segment Level of Service is LOS F, impact is significant regardless of intersection LOS.

Notwithstanding the foregoing, if the impact identified in paragraph a. above occurs at study horizon year 10 or later, and is off-site and not adjacent to the project, the impact is considered cumulative. Study year 10 may be that typical SANDAG model year which is between 8 and 13 years in the future. In this case of a traffic study being performed in the period of 2000 to 2002, because the typical model will only evaluate traffic at years divisible by 5 (i.e., 2005, 2010, 2015, and 2020) study horizon year 10 would correspond to the SANDAG model for year 2010 and would be 8 years in the future. If the model year is less than seven years in the future, study horizon year 10 would be 13 years in the future.

In the event a direct identified project-specific impact in paragraph a. above occurs at study horizon year 5 or earlier and the impact is off-site and not adjacent to this project, but the property immediately adjacent to the identified project-specific impact is also proposed to be developed in approximately the same time frame, an additional analysis may be required to determine whether or not the identified project specific impact would still occur if the development of the adjacent property does not take place. If the additional analysis concludes that the identified project-specific impact is no longer a direct impact, then the impact shall be considered cumulative.

3. Freeways

Project specific impact if both the following criteria are met:

- Freeway segment LOS is LOS E or LOS F
- Project comprises 5% or more of the total forecasted ADT on that freeway segment.
- Cumulative impact if only No. 1 is met.

Impact:

As shown on Tables 5.10-14 of the EIR (page 5-235), one intersection is projected to result in a significant direct impact at buildout of the proposed SPA Plan. As shown on Table 5.10-15 of the EIR (page 5-236), three street segments are projected to result in a cumulative traffic impact at buildout of the proposed SPA Plan. Additionally, implementation of the SPA Plan will result in significant cumulative impacts to six segments of I-805. These impacts are discussed in Section 5.10, pages 5-198 through 5-234, of the EIR.

Explanation:

Based on the peak hour intersection, segment and freeway analyses, the significance of impacts under each analysis timeframe was determined. The intersection at Rock Mountain Road and La Media Road is projected to result in a significant impact at buildout of the proposed SPA Plan, as shown on Table 5.10-14. Implementation of the proposed SPA Plan will result in significant, cumulative street segment impacts at the following three segments:

- Rock Mountain Road
- Main Street to La Media Road
- La Media Road to SR-125
- SR-125 to Eastlake Parkway

Significant cumulative impacts are calculated on I-805 since LOS F is calculated for six segments along this freeway, and the proposed project adds traffic to this freeway. In addition, access-related impacts would occur if appropriate lane configurations are not provided at the project driveways.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.10, page 5-234]. Mitigation of cumulative impacts to freeways are not feasible due to the fact that they are beyond the control of the City of Chula Vista. The mitigation of cumulative impacts to freeways is discussed in Section X below.

- 5.10-1 Prior to the issuance of building permits, the applicant(s) shall pay the applicable Transportation Development Impact Fee (TDIF), as amended to design, construct, and secure a fully actuated traffic signal, including interconnect wiring, mast arms, signal heads and associated equipment, underground improvements, standards and luminaries at the Rock Mountain Road/La Media Road intersection. The design of the signal shall be to the satisfaction of the City Engineer. Turn lane storage lengths shall be provided as indicated in Table 5.10-16.

- 5.10-2 Prior to the issuance of building permits, the applicant(s) shall pay the applicable Transportation Development Impact Fee (TDIF), as amended, towards widening Rock Mountain Road from La Media Road to Eastlake Parkway to six lanes or toward an intersection improvement along Rock Mountain Road to the satisfaction of the City Engineer by year 2015.

- 5.10-3 Prior to the issuance of building permits, the applicant(s) shall pay the applicable Transportation Development Impact Fee (TDIF), as amended, toward widening Rock Mountain Road from Main Street to SR-125 to six lanes and SR-125 to Eastlake Parkway to eight lanes or towards an intersection improvement along Rock Mountain Road, to the satisfaction of the City Engineer by year 2030.

Project Access

- 5.10-5 Phasing of the following improvements shall be consistent with the project PFFP and to the satisfaction of the City Engineer, with intersection lane geometry per Figure 5.10-11. Prior to the approval of the final map triggering the construction of the intersection improvements, including installation of a traffic signal, the applicant shall enter into an agreement to design, construct, and secure a fully actuated traffic signal including interconnect wiring, mast arms, signal heads and associated equipment, underground improvements, standards and luminaries at the intersections listed below. The design of the signal shall be to the satisfaction of the City Engineer and conform to City standards. The applicant shall provide turn lane storage lengths as listed in Table 5.10-16.

- Heritage Road/Olympic Parkway
- Heritage Road/Main Street
- Heritage Road/Street “D”
- Heritage Road/Street “F”
- Heritage Road/Street “J” North
- Heritage Road/Street “J” South
- La Media Road/Birch Road
- La Media Road/Santa Luna
- Olympic Parkway/Street “D”

PFFP

5.10-6 Prior to the approval of the final map containing the EDU threshold triggering the construction of street improvements, as defined by the PFFP, the applicant shall enter into an agreement to design, construct, and secure full street improvements to the street segments listed below. Phasing of improvements shall be consistent with the project PFFP and to the satisfaction of the City Engineer.

Heritage Road

Olympic Parkway to Street “D”
 Street “D” to Street “F”
 Street “F” to Street “J” North
 Street “J” North to Street “J” South
 Street “J” South to Main Street
 Heritage Road south of Main Street

Main Street

From Heritage Road to existing improvements
 East of Heritage Road to project SPA boundary

Street “D”

Heritage Road to Street E
 Street E to State Street
 State Street to Santa Venetia
 Olympic Parkway to Heritage Road

Street “E”

Street “D” to Street “B”

Street “B” to La Media Road

La Media Road

Santa Venetia to Birch Avenue

South of Birch Road to community park entrance (or Santa Luna)

5.10-7 No units within the project area shall be constructed which would result in the total number of units within the Eastern Territories exceeding 8,990 units, prior to the construction of SR-125 between SR-54 and the International Border. The City may issue additional building permits if the City Council determines that each of the following conditions have been met: (1) SR-125 is constructed and open between SR-54 and Olympic Parkway; and (2) traffic studies, prepared to the satisfaction of the City Engineer and the City Council, demonstrates that the opening of SR-125 to Olympic Parkway provides additional capacity to mitigate the project’s cumulative significant impacts to a level below significance without exceeding Growth Management Oversight Committee traffic threshold standards. Additionally, the City may issue building permits if the City Council has approved an alternative method to implement the City’s Growth Management Ordinance, as amended from time to time.

Finding:

As identified Section 5.0, Subchapter 5.10, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

AIR QUALITY

Thresholds of Significance:

Threshold 1: Conflict with or obstruct implementation of the applicable air quality plan;

Threshold 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

Threshold 3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Threshold 4: The City uses the following SCAQMD thresholds to assess the significance of air quality impacts (SCAQMD 1993) (Table 5.11-5):

**TABLE 5.11-5
SCAQMD THRESHOLDS**

Pollutant	Project Construction		Project Operation
	Pounds/Day	Tons/Quarter	Pounds/Day
Carbon Monoxide	550	24.75	550
Reactive Organic Compounds	75	2.5	55
Oxides of Nitrogen	100	2.5	55
Oxides of Sulfur	150	6.75	150
PM ₁₀	150	6.75	150

Threshold 5: Expose sensitive receptors to substantial pollutant concentrations; or

Threshold 6: Create objectionable odors affecting a substantial number of people.

Impact: Conflict with or obstruct implementation of the applicable air quality plan.

Development of the proposed SPA Plan and Composite TM is not consistent with the growth projections of the local regional air quality plan, which represents a direct, significant impact (Section 5.11, page 5-256).

Explanation:

While the project conforms to many of the measures included in the RAQS “Criteria to Guide the Development of Transportation Control Measures,” the proposed SPA Plan project is not consistent with the growth projections of the local regional air quality plan; which is a significant impact. Because the significant air impact stems from an inconsistency between the proposed SPA Plan and the growth projections upon which the RAQS were based, the only measure that can lessen this effect is the review and revision of the RAQS to reflect the general plan with the proposed project. This effort is the responsibility of SANDAG and San Diego APCD and is outside the jurisdiction of the City. Revisions to SANDAG’s RTP are anticipated in 2007.

Mitigation Measures:

Mitigation of this planning impact would require the updating of the RAQS to reflect the General Plan with the proposed project. This effort is the responsibility of SANDAG and outside the role of the City of Chula Vista.

Finding:

Implementation of this mitigation requires the revision of the RAQS. This is the responsibility of SANDAG and outside the jurisdiction of the City. Therefore, pursuant to section 15091(a)(2) of the State CEQA Guidelines, such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes can and should be adopted by such other agency.

Impact: Violate any air quality standard or contribute substantially to an existing or projected air quality violation or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment.

Implementation of the proposed SPA Plan and Composite TM will introduce new sources of air emissions to the San Diego Air Basin (SDAB), which is a non-attainment area. In addition, development of the project will result in a short-term, direct air quality impact from dust generated during construction activities, fumes, and equipment exhaust. Since the region is not in compliance with the PM₁₀ standard and because the average daily emission is anticipated to increase with implementation of the SPA Plan, impacts are significant. PM₁₀ emissions result from construction of projects and from daily operations in the City. The mitigation measures detailed below will reduce PM₁₀ from construction activities. Until the region is in compliance with the PM₁₀ and Ozone standards, impacts from operations remain significant.

Explanation:

As shown in Table 5.11-7 and Table 5.11-8 of the EIR, the proposed SPA Plan will result in a cumulatively significant long-term contribution to regional PM₁₀ and ozone levels as a result of projected emissions of ROG, an ozone precursor. In addition, the proposed SPA Plan will also result in a short-term significant fugitive dust impact as a result of emissions stemming from construction.

Mobile and stationary emissions emitted to the SDAB as a result of implementing the proposed SPA Plan is expected to exceed the SCAQMD and the SDAPCD incremental thresholds for PM₁₀, carbon monoxide, and the ozone precursors NOx and ROGs, as shown in Table 5.11-8 the EIR. As such, significant air quality impacts are anticipated due to mobile sources as a result of implementation of the project.

For area source emissions alone, only ROG is anticipated to exceed the applicable thresholds. However, as shown in Table 5.11-8, the total emissions resulting from vehicular traffic and on-site area sources are projected to exceed applicable thresholds for PM₁₀ and ozone precursors. Consequently, occupancy of the proposed project is expected to result in significant air quality impacts.

Because the region is not in compliance with the state PM₁₀ standard, the operational impacts of the development of the land uses associated with the SPA Plan represent a significant cumulative air impact. The following mitigation measures are feasible and are required as a condition of approval and are made binding through these findings. Until the region is in compliance with the PM₁₀ and Ozone standards, impacts from operations remain significant.

As the SDAB is in attainment for carbon monoxide, the projected maximum quarterly emission levels for that pollutant will not cause the region to exceed any applicable federal or state ambient air quality standards.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings (EIR, Subchapter 5.11, page 5-263).

5.11-1 Prior to the approval of building permits for each phase of the project, the applicant(s) shall demonstrate that air quality control and energy conservation measures outlined in the Sectional Planning Area (SPA) Plan Air Quality Improvement Plan pertaining to the design, construction, and operational phases of the project have been implemented.

5.11-2 Prior to the approval of any grading permit, the following measures shall be placed as notes on all grading plans, and shall be implemented during grading of each phase of the project to minimize construction emissions:

- Minimize simultaneous operation of multiple construction equipment units;
- Use low pollutant-emitting equipment construction equipment as practical;
- Use electrical construction equipment as practical;
- Use catalytic reduction for gasoline-powered equipment;
- Use injection timing retard for diesel-powered equipment;
- Water the construction areas a minimum of twice daily to minimize fugitive dust;
- Stabilize graded areas as quickly as possible to minimize fugitive dust;
- Pave permanent roads as quickly as possible to minimize dust;
- Use electricity from power poles instead of temporary generators during building, as feasible;
- Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry;
- Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads;
- Remove any visible track-out into traveled public streets within 30 minutes of occurrence;
- Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred;

- Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads;
- Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling; and
- Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph.

Finding:

Pursuant to section 15091(a)(3) of the State CEQA Guidelines, specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR. While mitigation measure 5.11-1 and 5.11-2 are feasible and will be completed, they do not substantially lessen the significant environmental effect as identified in the final EIR. Because there are no applicable or feasible mitigation measures within the control of the City to reduce mobile source emissions to below a level of significance, those operation-related impacts to air quality would remain significant and unmitigated. Adoption of a Statement of Overriding Consideration will be required should the decision makers choose to approve the proposed project.

NOISE

Thresholds of Significance:

- Threshold 1: Expose persons to or generation of noise levels in excess of standards established in the Chula Vista General Plan or noise ordinance, or applicable standards of other agencies;
- Threshold 2: Expose persons to or generation of excessive groundborne vibration or groundborne noise levels;
- Threshold 3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Threshold 4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- Threshold 5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing \or working in the project area to excessive noise; or
- Threshold 6: For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Impact: Expose persons to or generation of noise levels in excess of standards established in the Chula Vista General Plan or noise ordinance, or applicable standards

of other agencies or Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

Construction activities would create short-term noise increases near construction areas. Additionally, traffic-generated noise along Olympic Parkway, Birch Road, La Media Road, Heritage Road, and several internal streets will cause a significant direct noise impact on proposed residential uses within the project area. Noise levels from active uses associated with the high school stadium and the proposed community park, and from traffic noise from the industrial uses may exceed noise level standards and impact the adjacent residential uses (Section 5.12, pages 5-269 through 5-281).

Explanation:

Potential sources of noise related to the proposed project include construction noise, traffic generated noise, noise from activities at the high school, noise from the community park, and noise from industrial uses.

Construction activities, especially heavy equipment, would create short-term noise increases near construction areas. However, compliance with the existing City's Municipal Code would reduce this impact to below a level of significance.

Noise within the proposed SPA Plan area would be affected by traffic on Olympic Parkway, Birch Road, La Media Road, Heritage Road, and several internal streets. The traffic on area streets could generate noise levels greater than the City's residential exterior standard of 65 CNEL at adjacent ground-level sensitive receptors, which could cause a significant impact without mitigation.

Proposed residential units to the south of the high school stadium would be affected by activities at the stadium. Exterior noise levels at receivers 2 through 8 in Village 2 are projected to exceed 65 CNEL. This could cause a significant impact without mitigation.

Active uses in the community park are not expected to exceed noise ordinance standards for Village Two to the north. However, noise levels may exceed standards for the residential zone to the south of the park. This could cause a significant impact without mitigation.

Traffic noise levels are not projected to exceed 75 CNEL in industrial use areas. Noise levels produced on the industrial properties have the potential to affect adjacent residential uses and adjacent wildlife. Depending on the specifics of the industrial uses, this may be a significant impact.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and is made binding on the applicant through these findings (EIR, Subchapter 5.12, page 5-281 through 5-284).

5.12-1 Noise barriers shall be constructed as shown on Figure 5.12-4 of the EIR with the following provisions:

- Prior to the issuance of any building permit for those lots within the noise contour of 65 CNEL or greater, the applicant(s) shall construct the noise barriers as shown on Figure 5.12-4. Required barrier heights may be achieved through the construction of walls, berms, or wall/berm combinations. With the construction of barriers ranging from three to six feet along the edge of pad or top of slope as shown in Figure 5.12-4, noise levels at all ground-floor residential usable areas and the community park site would be at or below 65 CNEL. As indicated in Figure 5.12-4, the noise barrier adjacent to the community park may begin just north of the anticipated driveway at the southeast of the park.

A site design for the multi-family residential area is not available at this time. Mitigation of any exterior use areas could also be achieved through the site design by placing the exterior use areas on the sides of the building opposite the major project roadways (Olympic Parkway, Heritage Road and La Media Road). This would ensure that these areas are adequately shielded from roadway noise.

- Prior to issuance of the rough grading permit noise barriers shall be shown on wall and fence plans to the satisfaction of the Director of Building and Planning and the Environmental Review Coordinator.

5.12-2 Prior to approval of building permits for single-family areas where second floor exterior noise levels exceed 65 CNEL, an acoustical analysis shall be performed ensuring that interior noise levels due to exterior sources will be at or below 45 CNEL. Building plans will be available during design review and will permit the accurate calculation of transmission loss for habitable rooms. (lots 1 through 4, 6, 7 and 9 through 17 in R-6; lots 103, 104, 114, 115, and 129 in R5; lots 11, 12 [or 25-C if this lot will have a building] and 34 in R-25; and lots 3, 5 through 9, 11, 12, 14, 19 and 20 in R-4.) For these lots, it may be necessary for the windows to be able to remain closed to ensure that interior noise levels meet the interior standard of 45 CNEL. Consequently, the design for these units may need to include a ventilation or air conditioning system to provide a habitable interior environment with the windows closed based on the results of the interior acoustical analysis.

5.12-3 As stated in Title 24 of the State Building Code, prior to approval of design review permits for multi-family areas where first and/or second floor exterior noise levels exceed 60 CNEL, an acoustical analysis shall be performed ensuring that interior noise levels due to exterior sources will be below 45 CNEL. Building plans will be available during design review and will permit the accurate calculation of transmission loss for habitable rooms. (Portions of Neighborhoods R-14, MU-3, R-30, R-13, and R-12.) For these areas, it may be necessary for the windows to be able to remain closed to ensure that

interior noise levels meet the interior standard of 45 CNEL. Consequently, the design for buildings in these areas may need to include a ventilation or air conditioning system to provide a habitable interior environment with the windows closed based on the results of the interior acoustical analysis.

Football Stadium Noise

5.12-4 Prior to the issuance of any building permit for Lots 21, 22, 27, 28, 29, 30, and 53 through 57 (see Figure 5.12-3), the applicant(s) shall construct four-foot-high barriers along the northern property line of the affected lots as shown on Figure 5.12-5.

Community Park Noise

5.12-5 Prior to approval of a precise grading plan, an acoustical analysis shall be performed ensuring that noise levels do not exceed noise ordinance standards.

Industrial Noise

5.12-6 Prior to the issuance of a building permit for an industrial use on lots adjacent to residential uses, or adjacent to the Wolf Canyon wildlife area a noise analysis shall be completed demonstrating that the proposed use will not exceed the noise limits set by the City's Noise Control Ordinance.

Finding:

As identified in Section 5.0, Subchapter 5.12, Noise, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant effect as identified in the EIR to a level of insignificance.

PUBLIC SERVICES AND UTILITIES

POTABLE WATER

Thresholds of Significance:

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on potable water if it would:

Threshold 1: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Threshold 2: Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements needed.

Threshold 3: As part of its General Plan, the City has adopted a Growth Management Ordinance (Chapter 19.09) that imposes water threshold standards and requires

all major development projects to prepare a WCP. A copy of the SPA Plan WCP is available for public review at the City of Chula Vista, Planning and Building Department, 430 F Street, Chula Vista, California, and incorporated by reference in this EIR. These threshold standards are established to ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth.

Therefore, impacts to potable water would be significant if the proposed project would exceed City threshold standards which seek to ensure that adequate supplies of quality water, appropriate for intended use, are available. The standards require the following actions:

- The applicant must request and deliver to the City service availability letters from the appropriate water district for each project at the tentative map level.
- The applicant is required to submit a Water Conservation Plan along with a SPA Plan application.
- The project plans shall ensure an adequate supply of water on a long-term basis prior to the development of each Otay Ranch SPA.

Impact:

The proposed SPA Plan would result in an incremental increase in water consumption and place additional demands on water storage and pumping facilities. If the IID water transfer and other agreements are invalidated, a direct, significant water supply impact would result (Section 5.13, pages 5-301 through 5-309).

Explanation:

The WSAV Report prepared by Dexter Engineering for the proposed SPA Plan indicated that the increase in water demand is consistent with the projected water demand included in the OWD 2000 UWMP and the WRMP. The same finding can also be made under the OWD 2005 UWMP. The WSAV Report relied on water supply forecasts based on the projected potable water demands supplied with imported water received from SDCWA. However, the SDCWA relies in part on the IID water transfer and other agreements that are being challenged in court. As a result, the assumption that the IID water transfer and other agreements will be available is questionable due to litigation uncertainty, and it is possible that the identified water supplies may not be available as anticipated, despite the urban water management planning conducted by MWD, SDCWA, and OWD. If the litigation were to invalidate identified and available water supplies, a direct, significant water supply impact would result.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.13, page 5-310]:

5.13.1-1 Prior to the approval of the first final map, a final Subarea Master Plan (SAMP) shall be required for the project. The SAMP shall include the following:

- Existing pipeline locations, size, and capacity
- The proposed points of connection and system
- The estimated water demands and/or sewer flow calculated
- Governing fire department's fire flow requirements (flow rate, duration, hydrant spacing, etc)
- Agency's Master Plan
- Agency's planning criteria (see Sections 4.1 through 4.3 of the Water Agencies' Standards)
- Water quality maintenance
- Size of system and number of lots to be served

Water facilities improvements shall be financed or installed on-site and off-site in accordance with the SAMP.

5.13.1-2 Prior to the approval of the first final map, the applicant(s) shall secure and agree with the Otay Water District to construct all potable water facilities (on-site and off-site) required to serve the project. These water facilities improvements shall be financed or installed on-site and off-site in accordance with the fees and phasing in the approved Public Facilities Finance Plans for the SPA Plan.

Finding:

While mitigation measure 5.13-1 and 5.13-2 are feasible and will be completed, they do not substantially lessen the significant environmental effect as identified in the final EIR. The water supply impact remains significant because the issue of availability of water that was relied on to determine that there will be a sufficient supply is currently being litigated. Until the resolution of those actions, the anticipated water supply is not assured. The resolution of this issue is outside of the purview of the City. Because there are no applicable or feasible mitigation measures within the control of the City to reduce mobile water supply impacts to below a level of significance, those impacts remain significant and unmitigated. Pursuant to section 15091(a)(3) of the State CEQA Guidelines, specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

RECYCLED WATER

Thresholds of Significance:

- Threshold 1: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- Threshold 2: Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.
- Threshold 3: As part of its General Plan, the City has adopted a Growth Management Ordinance (Chapter 19.09) that imposes water threshold standards and requires all major development projects to prepare a WCP. A copy of the SPA Plan WCP is available for public review at the City of Chula Vista, Planning and Building Department, 430 F Street, Chula Vista, California, and incorporated by reference in this EIR. These threshold standards are established to ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth.

Therefore, impacts to recycled water would be significant if the proposed project would exceed City threshold standards that seek to ensure that adequate supplies of quality water, appropriate for intended use, are available. The standards require the following actions:

- The applicant must request and deliver to the City service availability letters from the appropriate water district for each project at the tentative map level.
- The applicant is required to submit a Water Conservation Plan along with a SPA Plan application.
- The project plans shall ensure an adequate supply of water on a long-term basis prior to the development of each Otay Ranch SPA.

Impact:

The proposed project would result in an incremental increase in the use of recycled water and place additional demands on water storage and pumping facilities. The increase in use of recycled water has been planned for by the OWD and will not have a significant impact (Section 5.13, page 5-313). However, the impact to recycled water storage and distribution facilities would be significant if construction of new facilities does not coincide with the development phasing of the proposed SPA Plan outlines in the project's PFFP.

Explanation:

OWD has master planned a series of pump stations, reservoirs, and transmission lines to integrate recycled water from the South Bay Reclamation Plant into the existing and future

recycled water system. Construction of these facilities is estimated to begin in the fall of 2006. The recycled water system will continue to be supplemented with potable water until the additional source of recycled water supply from the South Bay Water Reclamation Plant is available. Therefore, impacts to recycled water storage and distribution facilities would be significant if construction of new facilities does not coincide with the project's anticipated growth.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.13.2, page 5-317]

5.13.2-1 Prior to the approval of the first final map, a final Subarea Master Plan shall be required for the project. The SAMP shall include the following:

- Existing pipeline locations, size, and capacity
- The proposed points of connection and system
- The estimated water demands and/or sewer flow calculated
- Governing fire department's fire flow requirements (flow rate, duration, hydrant spacing, etc)
- Agency's Master Plan
- Agency's planning criteria (see Sections 4.1 through 4.3 of the Water Agencies' Standards)
- Water quality maintenance
- Size of system and number of lots to be served

Water facilities improvements shall be financed or installed on-site and off-site in accordance with the SAMP.

5.13.2-2 Recycled water facility improvements shall be financed or installed on- and off-site in accordance with the fees and phasing in the approved PFFP for the Villages Two, Three, and a portion of Four SPA Plan.

Finding:

As identified in Section 5.10, Subchapter 5.13, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant effect as identified in the EIR to a level of insignificance.

SEWER

Thresholds of Significance:

- Threshold 1: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Threshold 2: Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and
- Threshold 3: As part of its General Plan, the City has adopted a Growth Management Ordinance (Chapter 19.09) that imposes wastewater threshold standards that require the following:

Sewage Flows and volumes shall not exceed City Engineering Standards as set forth in the Subdivision Manual adopted by City Council Resolution Number 11175 on February 12, 1983, as may be amended from time to time. A copy of the Subdivision Manual is available for public review at the City of Chula Vista, Planning and Building Department, 430 F Street, Chula Vista, California.

The City shall annually provide the San Diego Metropolitan Sewer Authority with a 12- to 18-month development forecast and request confirmation that the projection is within the City's purchases/capacity rights and an evaluation of their ability to accommodate the forecast and continuing growth, or the City Engineering Department staff shall gather the necessary data.

Impact:

Development of the proposed SPA Plan and Composite TM would result in an increase in sewage generation (Section 5.13, pages 5-325 through 5-327). Based on this increase, development of the proposed SPA Plan will require the construction of gravity sewer line to handle increased flow. In addition, Village Three will be served by constructing a gravity sewer line in Heritage Road and connecting to the Wolf Canyon/Salt Creek Interceptor. The development of Village Three cannot occur until the construction of this gravity sewer line is completed.

Explanation:

The proposed SPA Plan would require the construction of new wastewater conveyance facilities. Construction of these conveyance facilities would occur in conformance with the phasing plan in the proposed project's PFFP. Until the sewer line in Heritage Road is constructed, development within Village Two will be limited so as not to exceed the excess capacity in the Poggi Canyon Interceptor sewer. Similarly, development of Village Three cannot proceed until the Heritage Road connection to the Salt Creek Interceptor is complete.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.13.3, page 5-327]

- 5.13.3-1 Sewer facility improvements shall be financed or installed on-site and off-site in accordance with the fees and phasing in the approved Public Facilities Financing Plan.
- 5.13.3-2 Prior to the recordation of the first Final Map or grading permit that creates any parcel located within the Wolf Canyon/Salt Creek Sewer Basin, the City Engineer shall be satisfied that the connections to the gravity sewer system from the southern portion of Village Two have been designed and secured to convey flow to Heritage Road and southerly to the Salt Creek Interceptor.
- 5.13.3-3 In order to ensure the timely construction of the Heritage Road regional facility, prior to the first final map that creates any parcel located within the Wolf Canyon/Salt Creek Sewer Basin, the necessary right-of-way for constructing full street improvements within the SPA Plan boundary shall be granted to the City.

Finding:

As identified in Section 5.0, Subchapter 5.13, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant effect as identified in the EIR to a level of insignificance.

LAW ENFORCEMENT

Thresholds of Significance:

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.

Threshold 2: Additionally, according to the City's Threshold Standards Policy, the project would have a significant impact on police services if it:

- Exceeds the City's threshold standards to respond to Priority One emergency calls throughout the city (within seven minutes in 81 percent of the cases and an average response time to all Priority One calls of 5.5 minutes or less).

- Exceeds the City's threshold standards to respond to Priority Two urgent calls throughout the city (within seven minutes in 57 percent of cases and an average response time to all Priority Two calls of 7.5 minutes or less).

Impact:

Development of the proposed SPA Plan and the Composite TM would result in a direct, significant impact to law enforcement because of the predicted increase in calls for service and the additional travel time required to respond to these calls (Section 5.13, page 5-333).

Explanation:

The Police Department is currently meeting the threshold standards for Priority One calls, but not meeting the threshold standards for Priority Two calls. Development of the proposed project would result in an incremental increase in calls for police service. Given the location of the project, officers would be required to travel additional distances to respond to calls for service. Increased travel time lengthens response time.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.13.5, page 5-334].

- 5.13.5-1 Prior to the approval of each building permit, the applicant(s) shall pay Public Facilities Development Impact Fees (PFDIF). The proposed Public Facilities Financing Plan describes public facilities fees for police services based on equivalent dwelling units by development phase. The applicant(s) shall pay the public facilities fees at the rate in effect at the time building permits are issued.
- 5.13.5-2 The City of Chula Vista shall continue to monitor the Chula Vista Police Department responses to emergency calls and report the results to the Growth Management Oversight Committee on an annual basis.

Finding:

As identified in Section 5.10, Subchapter 5.13, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant effect as identified in the EIR to a level of insignificance.

FIRE PROTECTION

Thresholds of Significance:

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant

environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency services.

Threshold 2: Additionally, the City's Threshold Standards Policy states that the proposed project would have a significant impact on fire protection services if it would:

- Reduce the ability to respond to calls throughout the City within the City's threshold standard to respond to calls within seven minutes in 80 percent of the cases.

Impact:

The Chula Vista Fire Department does not currently meet the threshold standard for response time for the City, including the Otay Ranch community. However, as population growth in the service area warrants, fire stations would be constructed within Village Nine of the Otay Valley parcel and within Village Thirteen of the Proctor Valley parcel to help ensure GMOC threshold standards are met. Implementation of the proposed SPA Plan will result in direct, significant impacts if construction of these facilities does not coincide with the increase in demand (Section 5.13, pages 5-335 through 5-336).

Explanation:

The Chula Vista Fire Department currently exceeds the threshold standards established for response time. Increased response time is attributable, in part, to increased travel time, which results from responding to freeway incidents; the lower density, hilly terrain; and the more circuitous non-grid nature of many streets in new residential developments in eastern Chula Vista, which includes the SPA Plan area. According to the Fire Station Master Plan, a nine-station network at General Plan buildout is needed to maintain compliance with the threshold standard. These stations would help ensure adequate service within the requirements of the GMOC threshold standards. Impacts to fire and emergency medical services would be significant if construction of these facilities does not coincide with the project's anticipated population growth and increased demand for services.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.13, page 5-336]

- 5.13.6-1 Prior to the approval of each building permit, the applicant(s) shall pay Public Facilities Development Impact Fee (PFDIF) at the rate in effect at the time of building permit issuance.
- 5.13.6-2 The City of Chula Vista shall continue to monitor Chula Vista Fire Department responses to emergency fire and medical calls and report the results to the Growth Management Oversight Committee on an annual basis.

Finding:

As identified in Section 5.10, Subchapter 5.13, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant effect as identified in the EIR to a level of insignificance.

SCHOOLS

Thresholds of Significance:

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for educational facilities services.

Threshold 2: According to the Otay Ranch GDP, impacts would be significant if the proposed SPA Plan project locates schools:

- In areas where disturbing factors such as traffic hazards, airports, or other incompatible land uses are present;
- In areas where they are not integrated into the system of alternative transportation corridors, such as bike lanes, riding and hiking trails, and mass transit;
- Where private elementary and secondary schools are not spaced far enough from public schools and each other to prevent an overconcentration of school impacts;
- Without at least 10 usable acres for an elementary school;
- Without a central location to residential development;
- Adjacent to a street or road which cannot safely accommodate bike, foot, and vehicular traffic;
- In areas not adjacent to parks, thereby discouraging joint field and recreation facility uses;
- At an unsafe distance (as required by law) from contaminants or toxins in the soil or groundwater from landfills, fuel tanks, agricultural areas, power lines, utility easements, and so on; or
- Inside of floodplains; on unstable soils; or near fault lines.

Impact:

Project implementation would result in a direct, significant impact to schools unless construction of facilities coincide with student generation and associated service demands (Section 5.13, pages 5-338 through 340).

Explanation:

The proposed project is expected to generate approximately 1,515 students between elementary, middle school, and high school grades as shown on Table 5.13-18 of the EIR. Proposed development and the projected increase in the number of elementary, middle school, and high school students would have a significant impact on the existing schools since they are already near capacity. According to the adopted Otay Ranch GDP School Facility Implementation Plan, schools are planned to be constructed at the time that 50 percent of the projected students reside in the community. Potentially direct, significant impacts to school services would result if construction of new facilities does not coincide with need.

Mitigation Measures:

Provision of school facilities is the responsibility of the school district when additional demand warrants. Government Code 65995(b) provides that the statutory fees are the exclusive means of considering as well as mitigating for school impacts. It does not just limit the mitigation that may be required, but also limits the scope of review and the findings to be adopted for school impacts. Once the statutory fee is imposed, the impact would be mitigated because of the provision that statutory fees constitute full and complete mitigation. Therefore, implementation of the mitigation measures set forth below would reduce the impact to schools to below a level of significance for the proposed SPA Plan and the Composite TM. The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings [EIR Subchapter 5.13.7, page 5-341].

- 5.13.7-1 Prior to the issuance of building permits, the applicant(s) shall pay all required school mitigation fees or enter into an agreement to help finance the needed facilities and services for the Chula Vista Elementary School District to the satisfaction of the School District.

- 5.13.7-2 Prior to the issuance of building permits, the applicant(s) shall pay all required school mitigation fees or enter into an agreement to help finance the needed facilities and services for the Sweetwater Union High School District to the satisfaction of the School District.

Finding:

As identified in Section 5.10, Subchapter 5.13, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

LIBRARY SERVICE

Thresholds of Significance:

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically

altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services.

Threshold 2: Additionally, the City's Threshold Standards Policy states that the proposed project would have a significant impact on library services if it would fail to meet the City's threshold standard of 500 gross square feet of library space, adequately equipped and staffed, per 1,000 population.

Impact:

There is currently a shortfall of approximately 6,500 square feet of library space in the city. The projected increase in population associated with the proposed SPA Plan would result additional demands on library services. Direct, significant impacts to library services would result if construction of new library facilities does not coincide with need (Section 5.13, pages 5-342 through 5-343).

Explanation:

Implementation of the proposed SPA Plan project and Composite TM would generate a greater population and would, therefore, require additional library facilities. An estimated population increase of 8,458 people corresponds to an increased library demand of 4,250 square feet. A potentially significant impact would result from the development of the proposed SPA Plan and the Composite TM if construction of new library facilities and provision of additional documents does not coincide with project implementation and associated population growth.

Mitigation Measures:

The following mitigation measure is feasible and is required as a condition of approval and is made binding on the applicant through these findings. [EIR, Subchapter 5.13.8, page 5-343].

5.13.8-1 Prior to approval of each building permit, the applicant(s) shall pay Public Facilities Development Impact Fees. Prior to the issuance of building permits, Applicants shall pay required Public Facility Development Impact fees at the rate in effect at the time of permit issuance.

Finding:

As identified in Section 5.10, Subchapter 5.13, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

PARKS AND RECREATION

Thresholds of Significance:

Threshold 1: Requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;

Threshold 2: Increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;

Threshold 3: The City's Threshold Standards Policy states that the proposed project would have a significant impact on parks and recreation services if it fails to meet the City's threshold standard of dedicating three acres of neighborhood and community parkland per 1,000 residents.

Impact:

Implementation of the proposed SPA Plan and the Composite TM would generate increased demand for parks and recreation facilities. A direct, significant impact could result if dedication of parkland and construction of new facilities does not coincide with project implementation and project population growth (Section 5.13, pages 5-345 and 5-346).

Explanation:

The proposed SPA Plan area is required to provide 25.4 acres of community/neighborhood parkland. The proposed SPA Plan meets these requirements by providing a centrally located 7.1-acre Neighborhood Park, a 6.9-acre Neighborhood Park in the eastern area of the village, a 1.4-acre Town Square in the Village Core, and 44.2 (net) acres of Community Park in a portion of Village Four for a total of 59.6 acres. However, if construction of new facilities does not coincide with the increase in demand as a result of implementation of the proposed SPA Plan, impacts would be significant.

Mitigation Measures:

The following mitigation measure is feasible and is required as a condition of approval and is made binding on the applicant through these findings. [EIR, Subchapter 5.13.9, page 5-346].

5.13.9-1 Prior to the approval of the first final map, the applicant(s) shall dedicate neighborhood and community parkland. Prior to approval of the final map, or for projects not requiring a final map, prior to building permit, the applicant(s) shall pay park development fees; and prior to building permit the applicant(s) shall pay recreation development impact fees in accordance with the fees and phasing approved in the Public Facilities Financing Plan for the SPA Plan.

Finding:

As identified in Section 5.13, Subchapter 5.13.9, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project

that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

HAZARDS/RISK OF UPSET

Thresholds of Significance:

- Threshold 1: Is located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, a significant hazard to the public or the environment would be created;
- Threshold 2: Creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Threshold 3: Creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Threshold 4: Emits hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Threshold 5: Is located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and would result in a safety hazard for people residing or working in the project area;
- Threshold 6: Is located within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area;
- Threshold 7: Impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan;
- Threshold 8: Exposes people or structures to a significant risk or loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas.

Impacts related to hazards were identified in the Otay Ranch GDP Program EIR. Because the EIR is a second tier of the Otay Ranch GDP Program EIR, the impacts identified in the Program EIR will also serve as the thresholds for determining impacts related to public health and safety for the propose SPA Plan.

- Threshold 9: Increase in urbanization would result in an increase in the uses, transport, storage, and disposal of hazardous waste materials and an associated increase in the risk of an upset condition in the area. Mitigation involves adherence to federal, state, and local laws and regulation regarding hazardous materials, and

emergency evacuation routes. Impacts would be reduced to levels below significance.

Threshold 10: Historic use of pesticides which would result in soil contamination and health effects. Mitigation involves conducting soil testing in appropriate areas. Impacts would be reduced to levels below significance.

Impact: Historic use of pesticides which would result in soil contamination and health effects.

The project will result in a direct impact to public health and safety due to soil contamination at the project site (Section 5.14, pages 5-357 through 5-359).

Explanation:

The extent of petroleum hydrocarbons in soil beneath the former UST on Village Two have been adequately assessed and excavated. Soil samples collected from the bottom and sidewalls of the excavation do not exhibit TPHg/TPHd concentrations at or above the laboratory detection limits and are not considered a risk to public safety or the environment. The Phase I ESA conducted for Village Three concluded that there is a potential for agriculturally developed portions of the subject property to be impacted by residual agricultural, including soil augmenting and chemicals. Elevated levels of organochlorine pesticides were present in the soils at the Village Four site. Fifteen composite soil samples taken from the Village Four Community Park Site exhibited concentrations of toxaphene exceeding one-quarter of the residential PRGs. Concentrations of OCPs exceeding residential PRGs are generally limited to the upper two feet of soil. The concentrations of the pesticides in the soils at the Village Four Community Park Site would be considered a significant risk to public safety and mitigation would be required.

Mitigation Measures:

The following mitigation measures are feasible and are required as a condition of approval and are made binding on the applicant through these findings. [EIR, Subchapter 5.14, page 5-360].

In addition to implementation of BMPs for the protection of water quality (see Chapter 5.9, Water Resources and Water Quality), the following mitigation measures are required to reduce significant impacts associated with the potential exposure to hazardous materials.

Implementation of the proposed SPA Plan and Composite TM could potentially result in public health and safety impacts related to soil contamination at the project site and would require the following mitigation:

- 5.14-1 If soil is to be exported from the site during proposed grading and other construction activities, it should be characterized prior to proposed off-site use or disposal and handled in accordance with applicable environmental laws and regulations. In addition,

contractors performing proposed grading and construction activities should employ adequate dust control measures to minimize exposure to soil and dust at the site.

- 5.14-2 If soil exhibiting hydrocarbon staining and/or odors are encountered at the site during grading and/or construction, the soil should be evaluated by a qualified professional (such as a professional engineer, registered geologist, or registered environmental assessor experienced in hazardous waste evaluations) and handled in accordance with applicable environmental laws and regulations.

Finding:

As identified in Section 5.10, of the EIR, pursuant to section 15091(a)(1) of the CEQA Guidelines, changes or alterations are required in, or incorporated into, the project that will substantially lessen or avoid the significant environmental effect as identified in the EIR to a level of insignificance.

X.

CUMULATIVE SIGNIFICANT EFFECTS & MITIGATION MEASURES

Cumulative impacts are those which “are considered when viewed in connection with the effects of past projects, the effect of other current projects, and the effects of probable future projects” (Pub. Resources Code Section 21082.2 subd. (b)). Several development proposals have been submitted for consideration or have been recently approved by the City of Chula in proximity of the project site. These “current or probable future” development proposals can affect many of the same natural resources and public infrastructure as development of the SPA Plan. Potentially significant cumulative impacts are associated with development of the project in conjunction with these surrounding development projects.

In formulating mitigation measures for the project, regional issues and cumulative impacts have been taken into consideration. Many of the mitigation measures adopted for the cumulative impacts are similar to the project level mitigation measures. This reflects the inability of the Lead Agency to impose mitigation measures on surrounding jurisdictions (i.e., City of San Diego, City of National City, and Caltrans) and the contribution of these jurisdictions to cumulative impacts. The project, along with other related projects, will result in the following irreversible cumulative environmental changes. All page numbers following the impacts refer to pages in the EIR.

The Otay Ranch GDP Program EIR (EIR #90-01) provided a comprehensive examination of the cumulative impacts associated with buildout of the entire Otay Ranch in conjunction with other related projects. The proposed SPA Plan project would not substantially change the conclusions

of the cumulative impact analysis from the Otay Ranch GDP EIR, since the proposed SPA Plan project is consistent with the adopted GDP for Villages Two, Three, and a portion of Four.

Impact: Land Use, Planning, and Zoning

Implementation of the SPA Plan, in conjunction with buildout of the remaining portions of Otay Ranch, and other nearby projects, will contribute to the conversion of over 30,000 acres of undeveloped land to urban uses. The overall loss of agricultural land and change in the character and use of the site from rural agricultural to urban would have a significant cumulative land use impact (EIR, Subchapter 5.0, page 5.4), as identified in the GDP Program EIR (EIR #90-01).

Explanation:

There are no feasible measures that would mitigate the impact to below a level of significance. In adopting the Findings of Fact to approve the Otay Ranch GDP, the City Council found that there are no feasible measures that would mitigate the impact below a level of significant, and a Statement of Overriding Considerations was adopted. The City Council determined that the cumulative land use impacts were acceptable because of the specific overriding considerations.

Mitigation Measures:

The City Council found in adopting the findings to approve the Otay Ranch GDP that there are no feasible measures that would mitigate the impact of the conversion of land to urban uses to below a level of significance. Therefore, the SPA Plan, as a project that implements the GDP, would contribute to this cumulatively significant unmitigable impact.

Finding:

There is no feasible mitigation measure to reduce this impact to below significance. Pursuant to section 15091(a)(3) of the State CEQA Guidelines, specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR..

Impact: Landform Alteration/Visual Quality

Development of the proposed SPA Plan would contribute to a change in the visual quality of the region. In addition, the project would contribute to the cumulative nighttime impacts identified in the Otay Ranch GDP EIR.

Explanation:

The visual quality would be affected by the change in character from a rural to an urban setting and overall landform alteration. Impacts to the nighttime visual setting would also occur from the cumulative addition of lights as Otay Ranch and surrounding proposed projects are implemented.

Mitigation Measures:

Cumulative visual impacts related to the change in visual character for the Otay Ranch and other major projects in the region would remain significant. No mitigation has been identified for the proposed SPA Plan to reduce this impact, and therefore, the Village Two, Three, and Portion of Four SPA Plan would result in significant cumulative impacts related to a change in the visual character of the project area that cannot be fully mitigated.

Finding:

The only mitigation available for this impact is the No Project Alternative. However, this alternative would not meet the goals and objectives of the proposed project as discussed in Section 3.3 of the EIR. Therefore, pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

Impact: Biological Resources

Development of the SPA Plan will contribute to a cumulative loss of raptor foraging habitat. The loss of raptor foraging habitat also was identified as a significant impact in the GDP Program EIR (EIR #90-01).

Explanation:

The GDP Program EIR (EIR #90-01) identified the loss of raptor foraging habitat as a significant cumulative impact. The SPA Plan will result in impacts to non-native grasslands and agricultural lands used by foraging raptors. Therefore, the SPA Plan and Composite TM, as a project that implements the GDP, will contribute to this significant cumulative impact.

Mitigation Measures:

The City Council found in adopting the findings to approve the Otay Ranch GDP that there are no mitigation measures that would reduce the impact of the loss of foraging habitat to below a level of significance. Adoption of the No Project Alternative is the only means to lessen the impact to raptor foraging habitat. However, adoption of the No Project alternative would not achieve any of the objectives of the project as identified in the EIR. The SPA Plan, as a project that implements the GDP, would contribute to this cumulatively significant unmitigable impact. Therefore, pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

Finding:

Pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible. Development of the proposed SPA Plan would contribute to the cumulative loss of raptor foraging habitat identified

in the approved GDP Program EIR #90-01. Adoption of the No Project Alternative is the only means to lessen the impact to raptor foraging habitat. However, adoption of the No Project alternative would not achieve any of the objectives of the project as identified in the EIR. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

Impact: Cultural Resources

Development of the proposed SPA Plan would contribute to a significant cumulative loss of cultural resources.

Explanation:

The Otay Ranch GDP Program EIR made a Finding of Overriding Considerations, whereby the benefits of the Otay Ranch project outweigh the significant cumulative impacts to cultural resources. No new cumulative impacts beyond those previously analyzed in the original GDP Program EIR (#90-01) would occur from implementation of the project. However, because of the continuing depletion of the archaeological record through general development, cumulative impacts to cultural resources would remain significant and unmitigated. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

Mitigation Measure:

No mitigation has been identified for the proposed SPA Plan to reduce this impact. Therefore, the SPA Plan would result in significant cumulative impacts related to cultural resources that cannot be fully mitigated.

Finding:

The only mitigation available for this impact is the No Project alternative. Adoption of the No Project Alternative does not meet the goals and objectives of the proposed project discussed in the EIR. Therefore, pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

Impact: Agricultural Resources

The loss of agricultural land and land suitable for the production of crops would result in a significant cumulative impact due to the incremental and irreversible loss or impairment of limited agricultural resources. Noise, odors, insects, rodents, and chemicals associated with agricultural operations would create indirect, short-term, potentially significant impacts between the agricultural uses and urban uses.

Explanation:

Development of the SPA Plan and the Composite TM would result in a significant impact to agricultural resources, due to the loss of 858.8 acres of Farmland of Local Importance and the

conversion of 321.72 acres of Grazing Land to urban uses. The loss of this acreage would result in a significant unavoidable impact due to the incremental and irreversible loss or impairment of Farmland of Local Importance and Grazing Land. In adopting the Findings of Fact to approve the Otay Ranch GDP, the City Council found that there are no feasible measures that would mitigate the impact below a level of significant, and a Statement of Overriding Considerations was adopted. This impact is identical to that assessed in the Otay Ranch GDP Program EIR (EIR #90-01). The SPA Plan would not result in any new significant adverse impacts to agricultural resources, or an intensification of such impacts, that were not analyzed in GDP Program EIR.

Furthermore, noise, odors, insects, rodents, and chemicals associated with agricultural operations would create indirect, short-term, potentially significant impacts between the agricultural uses and urban uses.

Mitigation Measures:

No mitigation has been identified for the proposed SPA Plan to reduce this impact. Therefore, the SPA Plan would result in significant cumulative impacts related to agricultural resources that cannot be fully mitigated.

Finding:

The incremental and cumulative loss of agricultural lands, which was considered a significant impact in the Otay Ranch GDP Program EIR, remains significant, and no mitigation measures are available to reduce this impact to below a level of significance. This incremental loss remains significant and unmitigated. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

Impact: Traffic, Circulation and Access

The proposed project would contribute to significant cumulative traffic impacts on segments of I-805 [EIR, Subchapter 5.10, pages 5-228].

Explanation:

The analysis contained in Section 5.10 found that cumulative impacts on I-805 would remain significant and unavoidable. LOS F was calculated on I-805 for individual scenarios and the project adds traffic to this freeway. All required improvements to I-805 are the responsibility of Caltrans and SANDAG.

Mitigation Measures:

The following mitigation measure is feasible and is required as a condition of approval and is made binding on the applicant through these findings (EIR, Subchapter 5.10, page 5-234 through 5-242).

5.10-4 For the following freeway segments, additional lanes would be required to maintain acceptable LOS. The City of Chula Vista recommends continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.

- Northbound I-805 from Telegraph Canyon Road to East H Street
- Southbound I-805 from East H Street to Telegraph Canyon Road
- Southbound I-805 from Olympic Parkway to Main Street
- Northbound I-805 from Olympic Parkway to Telegraph Canyon Road
- Southbound I-805 from Telegraph Canyon Road to Olympic Parkway
- Southbound I-805 from Olympic Parkway to Main Street

Finding:

While implementation of the measures described above in addition to adherence with applicable laws and regulations would reduce significant cumulative impacts to freeway segments below a level of significance, improvement to I-805 is the responsibility of SANDAG and outside the jurisdiction of the City. Therefore, pursuant to section 15091(a)(2) of the State CEQA Guidelines, such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes can and should be adopted by such other agency. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

Impact: Air Quality

The proposed project will result in temporary and long-term air quality impacts associated with construction and operation of the proposed project. Once the proposed project is built out, the major source of air pollution will be from project-related traffic. The analysis of air quality impacts contained in Section 5.11 included an analysis of cumulative impacts to air quality and found that the cumulative impacts related to long-term mobile emissions would be significant.

Explanation:

The region is currently classified as attainment for all criterion pollutants except Ozone. As of April 15, the region was classified as non-attainment for Ozone as a result of the application of the eight-hour Ozone standard. Ozone is not emitted directly, but is a result of atmospheric activity on precursors. Nitrogen oxides and hydrocarbons (reactive organic gases) are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone.

Because of the nature of the formation of ozone, it is a regional issue, rather than a localized one. The construction of the proposed project represents a cumulatively considerable contribution to the emission of ozone precursors, and a significant and unavoidable cumulative air quality impact. This impact is identical to the significant and unmitigable impact to air quality that was identified and assessed in the GDP Program EIR (EIR #90-01), and overridden in the City's Statement of Overriding Considerations prepared for the adopted Otay Ranch GDP.

Mitigation Measures:

No mitigation is available to reduce this cumulatively significant impact to less than significant levels.

Finding:

Project-related traffic emissions will exceed the identified significance thresholds for ozone precursors. There is no feasible mitigation available for this cumulative impact because it is a regional issue. Therefore, pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

Impact: Public Services and Utilities

WATER

The proposed project plus cumulative development would incrementally increase regional water consumption, resulting in a significant cumulative impact to water supply.

Explanation:

Cumulative impacts to water supply associated with ongoing development, including the proposed SPA Plan, are anticipated on a regional scale. The WSA&V report prepared by OWD for the proposed project relied on water supply forecasts based on the projected potable water demands supplied entirely with imported water received from the SDCWA. However, the SDCWA relies in part on a water transfer with the Imperial Irrigation District and the agreement that provides for the water transfer is being challenged in court. In light of these cases, the assumption that the IID water transfer water will be available is questionable. Since the IID water transfer is being challenged, it is possible that the water from IID will not be available as anticipated. In the absence of this water a significant water supply impact would result.

Mitigation Measure:

No mitigation is available to reduce this cumulatively significant impact to less than significant levels.

Finding:

Pursuant to section 15091(a)(3) of the State CEQA Guidelines, specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in

the EIR. The water supply impact remains significant because the issue of availability of water that was relied on to determine that there will be a sufficient supply is currently being litigated. Until the resolution of those actions, the anticipated water supply is not assured. The resolution of this issue is outside of the purview of the City. Because there are no applicable or feasible mitigation measures within the control of the City to reduce water supply impacts to below a level of significance, those impacts remain significant and unmitigated. As described in the Statement of Overriding Considerations, however, the City Council has determined that these impacts are acceptable because of specific overriding considerations.

XI.

FEASIBILITY OF POTENTIAL PROJECT ALTERNATIVES

Because the project will cause significant environmental effects, as outlined above, the City must consider the feasibility of any environmentally superior alternative to the project as finally approved. The City must evaluate whether one or more of these alternatives could avoid or substantially lessen the significant environmental effects. Where no significant environmental effects remain after application of all feasible mitigation measures identified in the EIR, the decision makers must still evaluate the project alternatives identified in the EIR. Under these circumstances, CEQA requires findings on the feasibility of project alternatives.

In general, in preparing and adopting findings, a lead agency need not necessarily address feasibility when contemplating the approval of a project with significant impacts. Where the significant impacts can be mitigated to an acceptable (insignificant) level solely by the adoption of mitigation measures, the agency, in drafting its findings, has no obligation to consider the feasibility of environmentally superior alternatives, even if their impacts would be less severe than those of the projects as mitigated (*Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376 [253 Cal.Rptr. 426]; *Laurel Hills Homeowners Association v. City Council* (1978) 83 Cal.App.3d 515 [147 Cal.Rptr. 842]; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692 [270 Cal.Rptr. 650]). Accordingly, for this project, in adopting the findings concerning project alternatives, the City Council considers only those environmental impacts that, for the finally approved project, are significant and cannot be avoided or substantially lessened through mitigation.

If project alternatives are feasible, the decision makers must adopt a Statement of Overriding Considerations with regard to the project. If there is a feasible alternative to the project, the decision makers must decide whether it is environmentally superior to the project. Proposed project alternatives considered must be ones that “could feasibly attain the basic objectives of the project.” However, the CEQA Guidelines also require an EIR to examine alternatives “capable of eliminating” environmental effects even if these alternatives “would impede to some degree the attainment of the project objectives” (CEQA Guidelines, section 15126).

The City has properly considered and reasonably rejected project alternatives as “infeasible” pursuant to CEQA. CEQA provides the following definition of the term “feasible” as it applies to the findings requirement: “feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors” (Pub. Resources Code, section 21061.1). The CEQA Guidelines provide a broader definition of “feasibility” that also encompasses “legal” factors. CEQA Guidelines section 15364 states, “the lack of legal powers of an agency to use in imposing an alternative or mitigation measure may be as great a limitation as any economic, environmental, social, or technological factor” (see also *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 565 [276 Cal.Rptr.410]).

Accordingly, “feasibility” is a term of art under CEQA and thus may not be afforded a different meaning as may be provided by Webster’s dictionary or any other sources. Moreover, Public Resources Code section 21081 governs the “findings” requirement under CEQA with regard to the feasibility of alternatives. Specifically, no public agency shall approve or carry out a project for which an environmental impact report has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless the public agency makes one or more of the following findings:

“Changes or alternations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR” (CEQA Guidelines, section 15091, subd. (a)(1)).

“Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency” (CEQA Guidelines, section 15091, subd. (a)(3)).

“Specific economic, legal, social, technological, or other considerations, including provisions of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR” (CEQA Guidelines, section 15091, subd. (a)(3)).

The concept of “feasibility” also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 [183 Cal. Rptr. 898]). “ ‘[F]easibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors” (Ibid.; see also *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715 [29 Cal.Rptr.2d 182]).

These findings contrast and compare the alternatives where appropriate in order to demonstrate that the selection of the finally approved project, while still resulting in significant environmental impacts, has substantial environmental, planning, fiscal, and other benefits. In rejecting certain

alternatives, the decision makers have examined the finally approved project objectives and weighed the ability of the various alternative to meet objectives. The decision makers believe that the project best meets the finally approved project objectives with the least environmental impact.

The detailed discussion in Section IX and Section X demonstrates that all but seven significant environmental effects of the project have been either substantially lessened or avoided through the imposition of existing policies or regulations or by the adoption of additional, formal mitigation measures recommended in the EIR. The remaining unmitigated impacts are the following:

- Land Use (cumulative - conversion of the site from undeveloped to intensive urban uses);
- Landform Alterations/Aesthetics (direct and cumulative - change in visual character of the site);
- Biological Resources (cumulative – loss of raptor foraging habitat)
- Cultural Resources (cumulative – depletion of the archaeological record)
- Agricultural Resources (cumulative - loss of agricultural lands);
- Air Quality (cumulative – operation-related emissions)
- Public Services and Utilities: Water Supply (cumulative – absence of sufficient water supply to serve the project)

The GDP Program EIR (EIR #90-01) also identified significant and not mitigated impacts for land use, agricultural resources, air quality, landform alterations/aesthetics, and biological resources. The SPA Plan project would contribute to the significant, unmitigated impacts identified above and by the GDP Program EIR. A Statement of Overriding Considerations was previously adopted by City Council for the GDP Program EIR, from which the SPA Plan EIR tiers.

Thus, the City can fully satisfy its CEQA obligations by determining whether any alternatives identified in the EIR are both feasible and environmentally superior with respect to the impacts listed above (*Laurel Hills, supra*, 83 Cal.App.3d at 519-527 [147 Cal. Rptr842]; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731 [270 Cal. Rptr. 650]; and *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 400-403 [253 Cal. Rptr. 426]). Table 10-9 in the EIR (EIR, Chapter 10, pages 10-30 through 10-36) provides a summary table comparing each of the alternatives. As the following

discussion will show, no identified alternative qualifies as both feasible and environmentally superior with respect to the unmitigated impacts.

To fully account for these unavoidable significant effects and the extent to which particular alternatives might or might not be environmentally superior with respect to them, these findings will not focus solely on the impacts listed above, but may also address the environmental merits of the alternatives with respect to all broad categories of impacts – even though such a far-ranging discussion is not required by CEQA. The findings will also assess whether each alternative is feasible in light of the City’s objectives for the project.

The City’s review of project alternatives is guided primarily by the need to reduce potential impacts associated with the project, while still achieving the basic objectives of the project. Here, the City’s primary objective is to comprehensively plan, coordinate, and implement development over a large area. More specific objectives include those previously listed in Section III. The City evaluated four alternatives to the proposed project, which are discussed below (No Project/No Development Alternative, Reduced Development Alternative A, Reduced Development Alternative B, and Reduced Development Alternative C).

No Project/No Development Alternative

Section 15126, subdivision(e), of the CEQA Guidelines requires the evaluation of the “No Project” alternative. Such an alternative “shall discuss the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

Under the “No Project/No Development” alternative, the SPA Plan project site would remain as it is today, and no development would occur. The project site would remain as undeveloped, agricultural land with residential development to the north and planned future urban development to the west, east and south.

The proposed SPA Plan project is consistent with the Otay Ranch GDP. The No Project/No Development alternative would not allow for the development of the SPA Plan as identified in the Otay Ranch GDP. With respect to the unmitigated impacts discussed in Section 5.0 of the EIR, the No Project/No Development alternative would not result in direct impacts to landform alteration, biological resources, cultural resources, geological resources, paleontological resources, traffic and circulation, air quality, utilities and public services, and hazards/risk of upset. Cumulative impacts to landform and aesthetics, biological resources, agricultural resources, transportation and access, and public utilities. However, impacts to land use would occur because the project would not implement the City’s General Plan, MSCP Subarea Plan or the Otay Ranch GDP, and would not provide housing opportunities within the City. With the No Project/No Development alternative, the site would not be permanently removed from future development, since applicable plans for the site identify its development.

Although the No Project/No Development alternative is considered environmentally preferable to the proposed project because it would eliminate many direct and cumulative impacts, it would not accomplish several of the goals and objectives of the proposed project and is therefore not feasible. Additionally, this alternative would result in land use conflicts because it would not allow for implementation of the Otay Ranch GDP for Villages Two, Three, and a portion of Four.

Findings:

The No Project/No Development alternative would not meet any of the basic project objectives as listed in Section 3.3, *Project Objectives*, of the EIR, and in Section III of these Findings of Fact.

The No Project/No Development alternative would not provide housing, conflicting with the housing goals of the General Plan, which recommends that housing be provided for all income groups.

Retention of the project site in its existing state as primarily agricultural fields would be inconsistent with the approved General Plan and existing Otay Ranch GDP land use designations for the site. In addition, key subregional traffic routes established in the Circulation Element would not be implemented.

Retention of the site in its current vacant condition would not implement the goals of the General Plan and would require re-evaluation of the existing GDP. The project proposes to provide regional-serving public facilities designated in the community plan, including Circulation Element roads, parks, open space, water and sewer facilities, and other infrastructure. These facilities would be needed to support surrounding developments whether the project is implemented or not. The No Project/No Development alternative would require that these facilities be provided without the benefit of the dedications and financial participation from private development, which may delay or preclude facilities from being provided. The reduction in dwelling units would result in a loss of anticipated contributions into the Public Facilities Financing Plan (PFFP) from the dwelling units/structures that would otherwise have made payments upon issuance of building permits. The loss of units under the No Project/No Development alternative would result in a shortfall of contributions into the PFFP and potentially lead to insufficient funding for the remaining public facilities currently identified in the PFFP for construction in this area.

The City and County would receive lower long-term revenues in the form of property and sales tax resulting from the non-development of the proposed residential areas.

Implementation of the No Project/No Development Alternative would not achieve any of the objectives established for the project. Although this alternative would at least temporarily preserve land which is currently not developed, agricultural land and other natural features on the project site, it would amount to a failure to plan the site for eventual development, despite the planned community designation contemplated by the General Plan GDP.

The No Project/No Development Alternative is inconsistent with the City's objectives: to plan the project area in a comprehensive manner in a way that deals with the logical extension of public services and utilities; to plan for parks and open space to serve residents; to complete the City's circulation; and to create densities sufficient to pay for all required services and infrastructure. The alternative also fails to meet objectives favoring an accommodation of future projected population in an area reasonable close to future job-growth areas within the City, as well as the construction of affordable housing consistent with the City's goals.

For these reasons, the City Council concludes that the No Project/No Development Alternative is not feasible (see *City of Del Mar, supra*, 133 Cal.App3d at 417; *Sequoyah Hills, supra*, 23 Cal.App.4th at 715).

Reduced Development Alternative A

The Reduced Development Alternative A designates the proposed SPA Plan area for low-medium residential at three to six dwelling units per acre, distributed around a Village Core, which includes higher density single- and multi-family residential use, an elementary school site, a community park site, a mixed-use site, two neighborhood park sites, and research and limited industrial uses. The detail of this land use is provided in Table 10-2 and the layout is provided in Figure 10-1 of the EIR.

Impact

The Reduced Development Alternative A would reduce the available housing within the SPA Plan area by approximately 37 percent relative to the proposed project. The reduction in available housing within the project area would reduce the ability of the City to meet the SANDAG-projected need for an additional 20,823 dwelling units by 2010. The lack of housing concurrent with need as shown in SANDAG forecasts and in the Growth Management Plan would result in a potentially significant impact.

As a result of the development the Reduced Development Alternative A of the Village Three portion of the project, significant impacts to CA-SDI-12,291b, as identified in Section 5.4 of the EIR, would be avoided. Therefore, as a result of completion of the Reduced Development Alternative A, no significant impact will result to cultural resources.

The direct impacts to sensitive biological resources under the Reduced Development Alternative A would be greater than the proposed project's. The current development footprint pursuant to the adopted Subarea Plan permits an impact to 0.98 acre of Otay tarplant, a narrow endemic species, containing 25,000 tarplants. Under the proposed project, the project Boundary Adjustment conserves the estimated 25,000 Otay tarplants that would be otherwise impacted without the Boundary Adjustment.

The development under this alternative would result in higher predestination flows to the Poggi Canyon basin from the Village Two Northwest subbasin. An additional detention basin would be required for peak flow from the Village Two West area. The development of Reduced

Development Alternative A would control the rate of on-site, post-development peak storm water runoff discharges. The Reduced Development Alternative A proposes significant grading modifications as compared to the proposed project. A portion of Wolf Canyon which is located in the MSCP preserve would not be filled in from development of this alternative. As such, there would be a measurable reduction in the volume or quality of the runoff from the site.

The traffic analysis conducted for this project indicated that the cumulative traffic effects of the Reduced Development Alternative A would not impact any intersections in the study area. It would, however, adversely affect eight roadway segments in the vicinity of the project.

In addition, under the Reduced Development Alternative A, the eight segments of I-805 are calculated to deteriorate to LOS E or LOS F (The remaining segments are calculated to operate at LOS D or better.), as discussed in Section 10.2, page 10-8 of the EIR.

Air quality impacts associated with vehicular trips would be reduced under the Reduced Development Alternative A. Short-term air quality impacts associated with construction would be slightly reduced because the area and extent of grading would be reduced because development under this alternative would not extend into a part of Wolf Canyon. There could be a slight decrease in overall long-term air quality impacts associated with power generation and the operation of on-site commercial facilities due to the reduced population. Overall, the reduction in air quality impacts would be minor and the cumulative impact would remain significant and unavoidable.

As with the proposed project, the Reduced Development Alternative A would increase the number of elementary, middle, and high school students beyond the existing demand and would have a significant impact on the existing schools. It does, however, have fewer students than is represented by the proposed project.

Implementation of the Reduced Development Alternative A would result in increased demand on existing library services, including a need for approximately 2,624 square feet of library facilities based on the expected project population of people of 5,249. It does, however, result in a reduction in the demand for library facilities.

Findings:

The Reduced Development Alternative A would reduce impacts to water quality, cultural resources, schools, libraries. However, significant impacts have been identified for land use, housing and population, traffic and air quality. While the alternative would implement some of the project objectives of the proposed project, the following objectives would not be met with this alternative:

- Establish a pedestrian and transit-oriented village with an intense urban core to reduce reliance on the automobile and promote walking and the use of bicycles, buses, and regional transit.

- Implement the goals, objectives, and policies of the adopted Chula Vista General Plan, and particularly, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan.
- Wisely manage limited natural resources.

The Reduced Development Alternative A results in a much less intense development than is the proposed project. The proposed project includes a total of 2786 residential units while this alternative 1791 units. As stated on Page 10-4 of the draft EIR, this alternative was designed with medium and medium-high density residential areas, rather than the more intense development of the proposed project. It also does not place as much residential use in the Village core area. It therefore limits the objective of reducing reliance on the automobile and promotion of a walkable community. In addition, the Reduced Development Alternative A does not place fill in the finger canyon that extends north of the mouth of Wolf Canyon. This area is currently being considered to be removed from the Preserve as part of the proposed Boundary Adjustment. By not filling this area it would not result in the net benefit to conservation of Covered Species and habitats as described on page 10-7 of the EIR. Therefore, pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible.

Reduced Alternative B

The Reduced Development Alternative B designates Village Two as a “transit village” served by the future extension of the Bus Rapid Transit, which integrates SANDAG’s adopted Transit First! Strategy into the Otay Ranch and locates a station within Village Two. The station location in Village Two would serve as a vital stop for travel to other Otay Ranch and regional destinations. The detail of this alternative is provided in Table 10-4 and illustrated in Figure 10-2, of the EIR.

Impact

Development under the Reduced Development Alternative B would reduce the amount of housing available within the SPA Plan area by approximately 10 percent fewer units relative to the proposed project. This would reduce the ability of the City of Chula Vista to meet the projected need for an additional 20,823 dwelling units by 2010. The lack of housing concurrent with needs as shown in SANDAG forecasts and in the Growth Management Plan would result in a potentially significant impact.

As with Reduced Development Alternative A, the direct impacts to sensitive biological resources under the Reduced Development Alternative B would be greater than the proposed project’s. The current development footprint pursuant to the adopted Subarea Plan permits an impact to 0.98 acre of Otay tarplant, a narrow endemic species, containing 25,000 tarplants. Under the proposed project, the project Boundary Adjustment conserves the estimated 25,000 Otay tarplants that would be otherwise impacted without the Boundary Adjustment.

As a result of the development the Reduced Development Alternative B of the Village Three portion of the project, significant impacts to CA-SDI-12,291b, as identified in Section 5.4 of the EIR, would be avoided. Therefore, as for Reduced Development Alternative A, no significant impact will result to cultural resources as a result of implementing this alternative.

As with the proposed project, Reduced Development Alternative B would increase the number of elementary, middle, and high school students beyond the existing demand and would have a significant impact on the existing schools. It does, however, have fewer students than is represented by the proposed project.

Implementation of the Reduced Development Alternative B would result in increased demand on existing library services, including a need for approximately 3,810 square feet of library facilities based on the expected project population of people of 7,620. It does, however, result in a reduction in the demand for library facilities.

Findings:

The Reduced Development Alternative B would reduce impacts to water quality, cultural resources, schools, libraries. However, significant impacts have been identified for land use, housing and population, traffic and air quality. While the alternative would implement some of the project objectives of the proposed project, the following objectives would not be met with this alternative:

- Establish a pedestrian and transit-oriented village with an intense urban core to reduce reliance on the automobile and promote walking and the use of bicycles, buses, and regional transit.
- Implement the goals, objectives, and policies of the adopted Chula Vista General Plan, and particularly, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan.

The Reduced Development Alternative A results in a much less intense development than is the proposed project. The proposed project includes a total of 2786 residential units while this alternative 1791 units. As stated on Page 10-4 of the draft EIR, this alternative was designed with medium and medium-high density residential areas, rather than the more intense development of the proposed project. It also does not place as much residential use in the Village core area. It therefore limits the objective of reducing reliance on the automobile and promotion of a walkable community. In addition, the Reduced Development Alternative A does not place fill in the finger canyon that extends north of the mouth of Wolf Canyon. This area is currently being considered to be removed from the Preserve as part of the proposed Boundary Adjustment. By not filling this area it would not result in the net benefit to conservation of Covered Species and habitats as described on page 10-7 of the EIR. Therefore, pursuant to

section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible.

The Reduced Development Alternative B includes 1,801 multi-family units, no mixed-use units and 709 single-family units. The proposed project includes 1,740 multi-family units, 60 mixed-use residential units and 986 single-family units.

The Reduced Development Alternative B results in a less intense development than is the proposed project. This alternative was designed with less multi family residential use in the Village Core area. As indicated on page 10-12 of the EIR, while this alternative it therefore limits the objective of reducing reliance on the automobile and promotion of a walkable community. In addition, the Reduced Development Alternative B does not place fill in the finger canyon that extends north of the mouth of Wolf Canyon. This area is currently being considered to be removed from the Preserve as part of the proposed Boundary Adjustment. By not filling this area it would not result in the net benefit to conservation of Covered Species and habitats as described on page 10-12 of the EIR. Therefore, pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible.

Reduced Alternative C

The land uses for the Reduced Development Alternative C include approximately 2,393 residential units, of which 1,130 units are single-family and 1,263 units are multi-family and approximately 255.1 acres of industrial development (including 70.8 within the landfill buffer), and the remaining acres would be developed with non-residential uses. The Industrial uses proposed within the landfill buffer are consistent with the adopted GDP. Figure 10-3 shows the land use plan for the Reduced Development Alternative C. Table 10-6 presents a tabulation of the proposed uses for the SPA Plan for this Alternative. There would be no development within Wolf Canyon under this alternative.

Impact

The Reduced Development Alternative C would reduce the amount of housing available within the SPA Plan area by approximately 18.4 percent. This would reduce the ability of the City of Chula Vista to meet the projected need for an additional 20,823 dwelling units by 2010. The Reduced Development Alternative C would not be in conformance with those policies as outlined in SANDAG's Growth Management Plan. The lack of housing concurrent with needs as shown in SANDAG forecasts and in the Growth Management Plan would result in a potentially significant impact.

As with Reduced Development Alternatives A and B, the direct impacts to sensitive biological resources under the Reduced Development Alternative C would be greater than the proposed project's. The current development footprint pursuant to the adopted Subarea Plan permits an

impact to 0.98 acre of Otay tarplant, a narrow endemic species, containing 25,000 tarplants. Under the proposed project, the project Boundary Adjustment conserves the estimated 25,000 Otay tarplants that would be otherwise impacted without the Boundary Adjustment.

As a result of the development the Reduced Development Alternative B of the Village Three portion of the project, significant impacts to CA-SDI-12,291b, as identified in Section 5.4 of the EIR, would be avoided. Therefore, as for Reduced Development Alternative A, no significant impact will result to cultural resources as a result of implementing this alternative.

As with the proposed project, Reduced Development Alternative C would increase the number of elementary, middle, and high school students beyond the existing demand and would have a significant impact on the existing schools. It does, however, have fewer students than is represented by the proposed project.

Implementation of the Reduced Development Alternative C would result in increased demand on existing library services, including a need for approximately 3,590 square feet of library facilities based on the expected project population of people of 7,179. It does, however, result in a reduction in the demand for library facilities.

Findings:

The Reduced Development Alternative C would reduce impacts to water quality, cultural resources, schools, libraries. However, significant impacts have been identified for land use, housing and population, traffic and air quality. While the alternative would implement some of the project objectives of the proposed project, the following objectives would not be met with this alternative:

- Establish a pedestrian and transit-oriented village with an intense urban core to reduce reliance on the automobile and promote walking and the use of bicycles, buses, and regional transit.
- Implement the goals, objectives, and policies of the adopted Chula Vista General Plan, and particularly, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan.
- Establish a land use and facility plan that assures the viability of the SPA Plan area in consideration of existing and anticipated economic conditions.
- Wisely manage limited natural resources.

The proposed project includes 1,740 multi-family units, 60 mixed-use residential units and 986 single-family units. The Reduced Development Alternative C includes 1,130 multi-family units, no mixed-use units and 1263 single-family units. This alternative results in a less intense

development than is the proposed project. This alternative was designed with less multi family residential use in the Village Core area. It therefore limits the objective of reducing reliance on the automobile and promotion of a walkable community. In addition, the Reduced Development Alternative C does not place fill in the finger canyon that extends north of the mouth of Wolf Canyon. This area is currently being considered to be removed from the Preserve as part of the proposed Boundary Adjustment. By not filling this area it would not result in the net benefit to conservation of Covered Species and habitats as described on page 10-24 of the EIR. Therefore, pursuant to section 15091(a)(3) of the CEQA Guidelines, specific economic, legal, social, technological, or other considerations make this alternative infeasible.

Environmentally Superior Alternative

CEQA requires that an EIR identify the environmentally superior alternative among all of the alternatives considered, including the proposed project. If the No Project/No Development alternative is selected as environmentally superior, then the EIR also shall identify an environmentally superior alternative among the other alternatives.

The environmental analysis of project alternatives presented in the EIR indicates, through a comparison of potential impacts from each of the proposed alternative and the proposed project, that the No Project/No Development alternative, if left in its current state, could be considered environmentally superior because no new uses would be introduced to the area and the project site would not result in environmental impacts. However, the No Project/No Development alternative would not implement the City's General Plan, the Otay Ranch GDP, or the RMP, which are primary project objectives. The No Project/No Development alternative would not accomplish any of the objectives of the project.

The Reduced Project Alternative A could be considered the environmentally superior project because it would reduce impacts associated with land use, visual quality/landform alteration, cultural resources, traffic, air quality, noise, utilities and services, and water quality while implementing some of the project objectives. The project objectives are enumerated in Section 3.3 of the EIR.

XII.

STATEMENT OF OVERRIDING CONSIDERATIONS FOR THE PROPOSED VILLAGES TWO, THREE, AND A PORTION OF FOUR SECTIONAL PLANNING AREA PLAN AND TENTATIVE MAPS EIR

The project would have significant, unavoidable impacts on the following areas, described in detail in Section IX of these Findings of Fact:

- Land Use
- Landform Alterations/Aesthetics
- Biological Resources
- Agricultural Resources
- Transportation
- Air Quality
- Water supply

The City has adopted all feasible mitigation measures with respect to these impacts. Although in some instances these mitigation measures may substantially lessen these significant impacts, adoption of the measures will, for many impacts, not fully avoid the impacts.

Moreover, the City has examined a reasonable range of alternatives to the project. Based on this examination, the City has determined that none of the alternatives: (1) meets project objectives, and (2) is environmentally preferable to the proposed project.

As a result, to approve the project, the City must adopt a “statement of overriding considerations” pursuant to CEQA Guidelines sections 15043 and 15093. This provision allows a lead agency to cite a project’s general economic, social, or other benefits as a justification for choosing to allow the occurrence of specified significant environmental effects that have not been avoided. The provision explains why, in the agency’s judgment, the project’s benefits outweigh the unavoidable significant effects. Where another substantive law (e.g., the California Clean Air Act, the Federal Clean Air Act, or the California and Federal Endangered Species Acts) prohibits the lead agency from taking certain actions with environmental impacts, a statement of overriding considerations does not relieve the lead agency from such prohibitions. Rather, the decision-maker has recommended mitigation measures based on the analysis contained in the Final EIR, recognizing that other resource agencies have the ability to impose more stringent standards or measures.

CEQA does not require lead agencies to analyze “beneficial impacts” in an EIR. Rather, EIRs are to focus on potential “significant effects on the environment,” defined to be “adverse.” (Pub. Resources Code Section 21068.) The Legislature amended the definition to focus on “adverse” impacts after the California Supreme Court had held that beneficial impacts must also be addressed. (See, *Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 206 [132 Cal.Rptr. 377].) Nevertheless, decision-makers benefit from information about project benefits. These benefits can be cited, if necessary, in a statement of overriding considerations. (CEQA Guidelines Section 15093.)

The City finds that the proposed project would have the following substantial, social, environmental and economic benefits. Any one of the reasons for approval cited below is sufficient to justify approval of the project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the City Council would stand by its determination that each individual reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings, which are incorporated by reference into this Section, and in the documents found in the Record of Proceedings, as defined in Section IV.

Environmental Protection and Preservation

The SPA Plan will adjust the boundary of the MSCP Subarea Preserve to include a large portion of Wolf Canyon. As identified on Page 10-7 of the EIR, there is net benefit to conservation of Covered Species and habitats as described on page 10-7 of the EIR.

The SPA Plan will convey 1.188 acres of land to the open space preserve for each acre of development area, or pay a fee in lieu. The RMP has established performance standards for achieving an 11,375-acre Otay Ranch open space preserve. Compliance relies on progressive acquisition, or funding for acquisition, of the designated Otay Ranch Preserve areas with each development approval.

The preserve includes an open space system that incorporates public education programs, links community to natural areas, and preserves and restores sensitive habitats, special landforms, and wildlife corridors. In addition, a system of paths and trails will connect the urban villages and their parks, forming a passive and active recreation network throughout the area. The RMP adopted by the Chula Vista City Council has the following functions.

- Serves as a plan-wide multi-species/habitat and cultural resources management program;
- Provides the funding, phasing, and ownership mechanisms necessary to effectively protect and manage on-site resources over the long term;
- Plans for coordinated, controlled public use and enjoyment of the Management Preserve established as part of the RMP consistent with protection of sensitive resources;
- Provides certainty that the open space will be preserved in perpetuity by requiring irrevocable dedications of open space acreage; and

- Preserves/protects cultural resources.

The RMP provides for management, resource enhancement and restoration, research, education, and interpretive activities to ensure that resource values in areas to be preserved are maintained and enhanced in perpetuity. The RMP also addresses cultural, paleontological, recreational, and agricultural resource protection needs in addition to sensitive habitats. Finally, the RMP provides an opportunity to establish large blocks of interconnected natural open space. By linking the Otay Ranch Preserve system to large and adjacent publicly owned open space lands with resource values similar to those found on the Otay Ranch property, the RMP contributes to the creation of an overall regional open space system, providing more than 35,000 acres of interconnected open space in Otay Ranch and the immediate vicinity. The RMP identifies the preservation of sensitive habitats that contain approximately 100 species of sensitive plants and animals.

Community Planning and Development

The Otay Ranch area contributes to air pollution in the San Diego air basin. Most of this pollution is attributable to motor vehicles. The proposed SPA Plan and the Village concept of the Otay Ranch GDP are designed to minimize automobile trip length and thereby reduce pollutant contributions to regional air quality that would otherwise result if jobs and housing were provided for in a typical suburban development pattern.

Otay Ranch's location adjacent to the Otay Mesa industrial area will provide housing proximate to this employment center. A mixed-use development, the GDP will promote linkage of trips, reduce trip length, and encourage use of alternative modes of transportation such as biking, walking and use of transit. The project is part of the GDP that creates a multi-modal transportation network that minimizes the number and length of single-passenger vehicle trips. It is designed to encourage walking, biking, use of transit and reduced reliance on automobiles, the GDP clusters high-density, high-intensity development in villages near transit and light rail terminals. Jobs, homes, schools, parks, and commercial centers are close by and linked by pedestrian and bicycle routes.

Comprehensive Regional Planning

The GDP and the SPA Plan project provide the opportunity to comprehensively plan development that meets the region's needs for housing, jobs, infrastructure, and environmental preservation. These benefits are made possible by Otay Ranch's size and scope. The Otay Ranch GDP includes a provision for regional purpose facilities and public services that are typically not undertaken for smaller development projects. The regional planning process undertaken for the GDP involved long-range inter-jurisdictional coordination, ensuring maximum achievement of policies and regulations of both the City of Chula Vista and San Diego County.

The benefits offered by the regional planning process utilized for the GDP and the SPA Plan include the following:

- Comprehensive consideration of the GDP cumulative effects;
- Consistency in the approach to resolving regional issues such as transportation, air quality, habitat preservation, infrastructure, and public services planning; and
- Long-range coordination of local and regional public facilities.

The GDP includes a provision for designating land for regional public facilities. These facilities are provided by the County and are currently housed in County-owned facilities, where available, but are more commonly located in leased or rented space. Designation of land for regional purposes will facilitate the provision of these services and provide better opportunities for users of these facilities than is currently available with new development.

The SPA Plan will develop a mix of uses that will result in an urban village once the entire Villages Two, Three, and a portion of Four area is developed. The project is consistent with and implements the vision for Villages Two, Three, and a portion of Four, as set forth in the Otay Ranch GDP.

Housing Needs

The GDP and SPA Plan/Composite TM will help meet a projected long-term regional need for housing by providing a wide variety of housing types and prices. In recent years, the cost of housing compared to other uses (e.g., commercial, industrial) has risen disproportionately to the cost of other uses in the Otay Ranch area, reflecting a shortfall in residentially zoned land. The GDP and the SPA Plan will help reduce the cost of housing by designating an adequate supply of suitable land for residential development.

The SPA Plan increases the housing stock in the City by approximately 2,786 dwelling units. This proposed level of development is included in the adopted planning for the City. The project represents a future housing supply for the region. Phasing will occur in response to market conditions, which will help fulfill the demand for housing.

SANDAG has forecasted a need for an additional approximately 20,823 additional dwelling units within the City of Chula Vista. The project will enact the SANDAG policies by providing a pedestrian and trail system, preserving open space, offering new homes, increasing the tax base for the City, and providing right-of-way for the regional transit system.

The SPA Plan provides five percent low-income and five percent moderate-income housing. The proposed 10 percent affordable housing is consistent with the objectives of the City's Housing Element and the Otay Ranch GDP requirements.

Fiscal Benefit

The fiscal impact analysis conducted for the GDP and included in the Otay Ranch Service Revenue Plan concluded that, at buildout, the GDP will have a net positive impact on both the City of Chula Vista and the County of San Diego. Because it is anticipated that during buildout there will be short-term periods in which the costs to service Otay Ranch exceed revenues, the GDP includes a reserve fund program, which protects the City and County by correcting any operating deficiencies incurred by the affected jurisdiction during years where there is a fiscal shortfall. Financing of the reserve program and the cost of annual fiscal reviews will be the responsibility of the applicants.

The project will provide for significant community-wide public facilities. As the plan is implemented, it will be responsible for constructing public facilities and infrastructure to serve the project and incidentally the subregion. These facilities include:

- Improvements to regional backbone circulation system;
- Water and sewer facilities;
- An elementary school and a high school site to serve Villages Two, Three, and a portion of Four and the subregion; and
- A public park and greenbelt and community trails.

The project would also generate new temporary construction-related jobs that would enhance the economic base of the region.

For these reasons, on balance, the City Council finds there are environmental, economic, social, and other considerations resulting from the project that serve to override and outweigh the project's unavoidable significant environmental effects and, thus, the adverse unavoidable effects are considered acceptable.