Otay Ranch

SPA One Public Facilities Finance Plan

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Otay Ranch SPA One

Public Facilities Finance Plan

FEBRUARY 16, 1999

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Executive Summary

Overview

The Growth Management Chapter of the Otay Ranch General Development Plan (GDP)/Subregional Plan (SRP) contains Goals, Policies, Objectives and Implementation Measures governing the phasing of Otay Ranch to assure the efficient and timely provision of public facilities concurrent with need and in compliance with facility-specific policies and thresholds.

The performance-based facility driven thresholds meld the Chula Vista Facility Thresholds, the County Public Facility Element and the draft Regional Growth Management Strategy. The thresholds are contained in the Otay Ranch GDP Facility Implementation Plan.

In addition to the above, this Public Facilities Finance Plan (PFFP) has been prepared under the requirements of the City of Chula Vista's Growth Management Program and Implementation Ordinance No. 2448. The preparation of the PFFP is required in conjunction with the preparation of the Sectional Planning Area Plan (SPA) to ensure that the phased development of the project is consistent with the overall goals and policies of the City's General Plan, Growth Management Program and the Otay Ranch General Development Plan and to ensure that the development of the project will not adversely impact the City's Quality of Life Standards. This PFFP meets the policy objectives of the Otay Ranch GDP.

The PFFP is based upon a revised phasing plan dated September 1, 1998. The Otay Ranch SPA One project is proposed to be developed in eleven phases: Village One - blue, green, brown and purple phases; Village One East/Village Five West - grey and orange phases; Village Five - pink, yellow and red phases; and Village One West – silver and gold phases. The PFFP begins by analyzing the existing demand for facilities based upon the demand from

existing development and those projects with approved final and tentative maps. Projects that currently have a final or tentative map may have committed facility capacity and are the "approved" projects. (It should be noted that the list of "approved" projects is used for analytical purposes only and unless a development agreement or other legal instrument guarantees facility capacity, some projects with Tentative Map approvals only may not have committed capacity). This update of the PFFP uses the revised SPA One Phasing Plan to determine the impacts associated with each phase of the project.

Phasing of the future development of this project predicts when additional or upgraded facilities will be needed to meet or maintain compliance with the City's Quality of Life Standards. When specific thresholds are projected to be reached or exceeded based upon the analysis of the phased development of the Otay Ranch SPA One project, the PFFP provides recommended mitigation necessary for the continued compliance with the Growth Management Program and Quality of Life Standards. This PFFP proposes different development phasing from that identified in the SPA One Plan adopted June 4, 1996 and may indicate that the development phasing should be limited or reduced until certain actions are taken to guarantee public facilities will be available or provided to meet the Quality of Life Standards. Further, this PFFP update was prepared in response to a revised phasing plan and changes in ownership within SPA One. The revised phasing plan proposes non-consecutive phasing. For example, three phases (blue, grey and pink) are currently developing simultaneously, as will future phases. This non-consecutive phasing approach facilitates simultaneous development, while considering the geographic location and logical phasing of backbone infrastructure tied to each development phase. Subsequent changes to the phasing shall require an amendment to the PFFP.

As an applicant receives each succeeding development approval, the applicant must perform required steps leading to the timely provision of the required facility. Failure to

perform the required step curtails additional development approvals. The concept is illustrated below:

Performance of Facility Thresholds

GDP/SRP

- Goals, objectives & policies established.
- Facility thresholds established.
- Processing requirements established.

SPA

- Facility financing refined and funding source identified consistent with GDP goals, objectives & policies.
- Facility demand and costs calculated consistent with adopted land uses and GDP defined methodologies.
- Specific facility financing and phasing analysis performed to assure compliance with Growth Management Thresholds.
- Facilities sited and zoning identified.

TENTATIVE MAP

- Subdivision approval conditioned upon assurance of facility funding.
- Subdivision approval conditioned upon payment of fees, or the dedication, reservation or zoning of land for identified facilities.
- Subdivision approval conditioned upon construction of certain facility improvements.

FINAL MAP

- Tentative Map conditions performed.
- Lots created.

BUILDING PERMIT

- Impact fees paid as required.

The critical link between the thresholds and development entitlements is the Public Facilities Finance Plan. Section C

of the GDP, SPA processing requirements, requires preparation of Public Facility Financing and Phasing Plans as a condition of approval of all SPAs. This PFFP satisfies the GDP requirement. The PFFP requires the preparation and approval of phasing schedules showing how and when facilities and improvements necessary to serve proposed development will be installed or financed to meet the threshold standards, including:

- An inventory of present and future requirements for each facility.
- A summary of facilities cost.
- A facility phasing schedule establishing the timing for installation or provisions of facilities.
- A financing plan identifying the method of funding for each facility required.
- A fiscal impact report analyzing SPA consistency with the requirements and conclusions of the Otay Ranch Service Revenue Plan.

Performance is further assured through the preparation of an annual monitoring report, as governed by the GDP (Page 353). This report analyzes actual compliance with threshold standards and projects the volume and location of future development and facilities to be provided to meet the threshold standards. Failure to comply with a threshold results in the imposition of an appropriate sanction tied to the nature and severity of the shortfall.

Subsection C of Municipal Code Section 19.09.100 (Growth Management Ordinance) requires that if the City Manager determines that facilities or improvements within a PFFP are inadequate to accommodate any further development within that area the City Manager shall immediately report the deficiency to the City Council. If the City Council determines that such events or changed circumstances adversely affect the health, safety or welfare of City, the City

may require amendment, modification, suspension, or termination of an approved PFFP.

General Conditions for Otay Ranch SPA One

1. All development within the boundaries of the PFFP for Otay Ranch SPA One shall conform to the provisions of Section 19.09 of the Chula Vista Municipal Code (Growth Management Ordinance) and to the provisions and conditions of this Public Facilities Finance Plan.

2. All development within the boundaries of the PFFP for Otay Ranch SPA One shall be required to pay development impact fees for public facilities, transportation and other applicable fees pursuant to the most recently adopted program by the City Council, and as amended from time to time. Development within the boundaries of the Otay Ranch SPA One shall also be responsible for fair share proportionate fees that are necessary to meet the adopted facility performance standards as they related to SPA One.

3. The Public Facilities Finance Plan shall be implemented in accordance with Chula Vista Municipal Code 19.09.090. Future amendments shall be in accordance with CVMC 19.09.100 and shall incorporate newly acquired data, to add conditions and update standards as determined necessary by the City through the required monitoring program. Amendment to this Plan may be initiated by action of the Planning Commission, City Council or property owners at any time. Any such amendments must be approved by the City Council.

4 Approval of this PFFP does not constitute prior environmental review for projects within the boundaries of this Plan. All future projects within the boundaries of this PFFP shall undergo environmental review as determined appropriate by the City of Chula Vista.

5. Approval of this PFFP does not constitute prior discretionary review or approval for projects within the boundaries of the Plan. All future projects within the boundaries of the Otay Ranch SPA One PFFP shall undergo review in accordance with the Chula Vista Municipal Code. This PFFP analyzes the maximum allowable development potential for planning purposes only. The approval of this plan does not guarantee specific development densities.

6. The facilities and phasing requirements identified in this PFFP are based on Tentative Maps 96-04, 97-02 and 98-04 that assume that 5,195 units will be constructed. If fewer units are actually constructed, facility and phasing requirements shall be adjusted proportionately.

7. The plan analysis is based upon the phasing presented in this document. Any changes to phasing shall require an amendment to the PFFP.

SPA One Public Facility Cost and Fee Summary

The following tables identify and summarize the various facility costs associated with development of the Otay Ranch SPA One project. The facilities and their cost are identified in detail in Section 3 of this Public Facilities Finance Plan. The tables indicate a recommended financing alternative based upon current City practices and policies. However, where another financing mechanism may be shown at a later date to be more effective, the City may implement such other mechanisms in accordance with City policies. This will allow the City maximum flexibility in determining the best use of public financing to fund public infrastructure improvements.

The total cost of street improvements is $68,912,663 as identified in Table 9. The 20 improvement projects listed include both offsite and onsite improvements. Fourteen of

the 20 improvement projects are eligible for funding through the City's Transportation Development Impact Fee (DIF) program. These eligible improvements total $63,906,663. In the event a DIF improvement is constructed by the developer, the cost of the improvement may be eligible for credit against DIF fees. Construction of non-DIF eligible improvements are the responsibility of the developer.

Transportation DIF Fees generated by SPA One total $22,044,572. Fees are also generated for Pre-SR125 facilities ($4,521,398) and for traffic signals ($773,764). Funding of $63,906,663 for street improvements will be accomplished in one or more possible funding alternatives as follows:

- Payment of Transportation DIF fees.
- Construction of improvements by developer with credit toward DIF fees on building permits.
- Financing through assessment districts or Community Facility Districts over area of benefit larger than SPA One.
- Expenditure of available DIF account funds.
- Construction of improvements by other developers (i.e. Sunbow, etc.)
- Federal Funds

SPA One is anticipated to require three elementary schools, approximately 1/2 of a middle school and approximately 1/2 of a new high school. These school facilities will be constructed with funding through Mello-Roos Community Facilities Districts established by Sweetwater Union High School District and Chula Vista Elementary School District.

Backbone sewer, drainage and water improvements will be funded, in part, through the payment of impact fees and capacity fees established for these purposes. The developer will fund the construction of onsite facilities.

Parks, trails and open space will be funded, in part, through the payment of Park Acquisition and Development Fees (PAD fees), dedication, and developer exactions. SPA One

will generate approximately $23,588,700 in PAD fee revenues.

Police, fire and emergency medical services, library, civic center, corporation yard, and other public facilities will be funded from revenues generated from the payment of Public Facilities Development Impact Fees at building permit issuance. These fee revenues total approximately $12,885,762 from SPA One.

Table 1
SUMMARY OF COSTS/FEES BY PHASE

Phase	Traffic[1]	Sewer	Drainage[2]	Water[3]	Police	Fire
Village 1						
Blue	2,481,060	108,339			133,480	80,088
Green	2,802,428	109,701			148,990	89,394
Brown	1,083,793	49,174			72,850	43,710
Purple	5,054,069	419,038			280,943	168,566
Village 1E/5W						
Grey	4,346,771	187,956			244,024	146,414
Orange	1,866,557	150,753			111,390	66,834
Village 5						
Pink	1,157,273	43,902			55,460	33,276
Yellow	2,772,172	112,792			135,149	81,089
Red	1,300,602	120,830			70,735	42,441
Village 1W/2W						
Silver	1,999,363	75,072			95,880	57,528
Gold	2,385,219	209,308			113,270	67,962
TOTAL	**$27,249,307**	**$1,948,604**	**$2,976,350**		**$1,462,170**	**$877,302**

Phase	Schools[4]	Library	Parks	Civic	Corp. Yard	Other PF	Total
Village 1							
Blue		308,992	$2,263,400	$299,336	$292,520	$61,912	**$6,029,127**
Green		344,896	2,541,070	334,118	326,510	69,106	**6,766,213**
Brown		168,640	1,041,855	163,370	159,650	33,790	**2,.816,832**
Purple		650,352	3,773,580	630,029	615,683	130,310	**11,722,567**
Village 1E/5W							
Grey		564,890	3,667,465	547,237	534,776	113,186	**10,352,719**
Orange		257,856	1,753,555	249,798	244,110	51,666	**4,752,519**
Village 5							
Pink		128,384	1,032,500	124,372	121,540	25,724	**2,722,432**
Yellow		312,854	2,407,480	303,078	296,177	62,686	**6,483,476**
Red		163,744	1,214,045	158,627	155,015	32,809	**3,258,847**
Village 1W/2W							
Silver		221,952	1,785,000	215,016	210,120	44,472	**4,704,403**
Gold		262,208	2,108,750	254,014	248,230	52,538	**5,701,498**
TOTAL		**$3,384,768**	**$23,588,700**	**$3,278,994**	**$3,204,330**	**$678,198**	**$65,310,634**

Notes:

(1) Includes TDIF, Interim SR-125 DIF and Traffic Signal Fees.
(2) Includes Telegraph Canyon Basin Fees
(3) The Otay Municipal Water District collects capacity fees in conjunction with the purchase of water meters

(4) CVESD CFD No.6 has been formed to fully mitigate the impact of development on elementary schools. SUHSD CFD No. 6 has been formed to fully mitigate the impact of development on secondary schools.

Table 2
TIMING/FUNDING SOURCE BY FACILITY

Facility	Description	Timing
Sewer	TC Fees	Building Permit
	Poggi Canyon Fees	Building Permit
Drainage	Fees per Ordinance 2384	Per Ordinance
Water	Pay OWD Capacity Fees	Pay with purchase of water meters
Police	Pay PFDIF	Building Permit
Fire	Pay PFDIF	Building Permit
School	CVESD CFD No. 6	District Formed
	SUHSD CFD No. 6	District Formed
Library	Pay PFDIF	Building Permit
Parks	Pay PAD Fees	Building Permit
Civic	Pay PFDIF	Building Permit
Corp. Yard	Pay PFDIF	Building Permit
Other Public Fac.	Pay PFDIF	Building Permit

1.0 Introduction

1.1 Overview

The City of Chula Vista has looked comprehensively at issues dealing with development and the additional impacts it places on public facilities and services. The approval of the Threshold Ordinance and the General Plan update were the first steps in the overall process of addressing growth related issues. The second step in this process was the development and adoption of a specific Growth Management Element that set the stage for the creation of the City's Growth Management Program.

The Chula Vista City Council adopted the Growth Management Program and Implementing Ordinance No. 2448 on May 28, 1991. These documents implement the Growth Management Element of the General Plan, and establish a foundation for carrying out the development policies of the City by directing and coordinating future growth in order to guarantee the timely provision of public facilities and services.

The Growth Management Ordinance requires a Public Facilities Finance Plan (PFFP) to be prepared for future development projects requiring a Sectional Planning Area (SPA) Plan or Tentative Map. The contents of the PFFP are governed by Section 19.09.060 of the Growth Management Ordinance that requires that the plan show how and when the public facilities and services identified in the Growth Management Program will be installed or financed.

1.2 Purpose

The purpose of the Public Facilities Finance Plan is to implement the City's Growth Management Program and to meet the General Plan goals and objectives as well as the Growth Management Element goals and objectives. The Chula Vista Growth Management Program implements the

City's General Plan and Zoning Ordinance by ensuring that development occurs only when necessary public facilities and services exist or are provided concurrent with the demands of new development.

1.3 Threshold Standards

City Council Resolution No. 13346 identified eleven (11) public facilities and services with related threshold standards and implementation measures. These public facilities and services were listed in a policy statement dated November 17, 1987 and have subsequently been refined based on recommendations from the Growth Management Oversight Commission (GMOC).

The 11 public facilities and services include:

- Traffic
- Police
- Fire/EMS
- Schools
- Libraries
- Parks and Recreation
- Water
- Sewer
- Drainage
- Air Quality
- Fiscal

During development of the Growth Management Program two new facilities were added to the list of facilities to be analyzed in the PFFP:

- Civic Facilities
- Corporation Yard

Threshold standards are used to identify when new or upgraded public facilities are needed to mitigate the impacts of new development. Development approvals will not be made unless compliance with these standards can be met.

These threshold standards have been prepared to guarantee that public facilities or infrastructure improvements will keep pace with the demands of growth.

1.4 The Otay Ranch SPA One Project

Otay Ranch lies within the approximately 37,500-acre Eastern Territories Planning Area of the City of Chula Vista. The Otay Ranch SPA One is located in roughly the center of the Eastern Territories Planning Area. The Otay Ranch SPA One includes all of Village Five and the portion of Village One east of Paseo Ranchero. The SPA One project area contains approximately 1,398 acres and is proposed to be developed in eleven phases. There are currently two major property owners within SPA One; Otay Project, LLC and McMillin – D.A. America Otay Ranch LLC. In order to comprehensively plan for the orderly provision of public facilities, SPA One is analyzed by phases that correspond to property ownership.

Village One includes a total of 1,456 single-family homes and 1,422 multi-family homes along with 6.0 acres for community purpose facilities, 22.7 acres of parks, 8.1 acres of commercial, 10.6 acres for schools, and 93.8 acres of open space. Village Five includes a total of 1,694 single-family homes, 659 multi-family homes, 18.2 acres of parks, 9.5 acres for community purpose facilities, 2.8 acres of commercial, 10.0 acres for schools, and 90.2 acres of open space.

Village One West includes a total of 890 single-family homes, a 5.1 acre neighborhood park, a 10 acre elementary school and 56.0 acres of open space.

Most of the Otay Valley Parcel of Otay Ranch, including the SPA One project area, was annexed into the City of Chula Vista on March 20, 1997.

1.5 Public Facilities Finance Plan Boundaries

Section 19.12.070 of the Growth Management Implementation Ordinance requires that the City shall establish the boundaries of the PFFP at the time a SPA Plan or Tentative Map is submitted by the applicant. The boundaries shall be based upon the impact created by the Project on the existing and future need for facilities. The project boundaries will correlate the proposed development project with existing and future development proposed for the area of impact to provide for the economically efficient and timely installation of both onsite and offsite facilities and improvements required by the development. In establishing the boundaries for the PFFP, the City shall be guided by the following considerations:

- Service areas, drainage, sewer basins, and pressure zones which serve the Project;
- Extent to which facilities or improvements are in place or available;
- Ownership of property;
- Project impact on public facilities relationships, especially the impact on the City's planned major circulation network;
- Special district service territories;
- Approved fire, drainage, sewer, or other facilities or improvement master plans.

The boundaries of the PFFP for the Otay Ranch SPA One project are congruent with the Sectional Planning Area (SPA) Plan boundaries. However, the PFFP does address certain facilities (streets, drainage, sewer, police, fire, etc.) which are impacted beyond the boundaries of the SPA Plan.

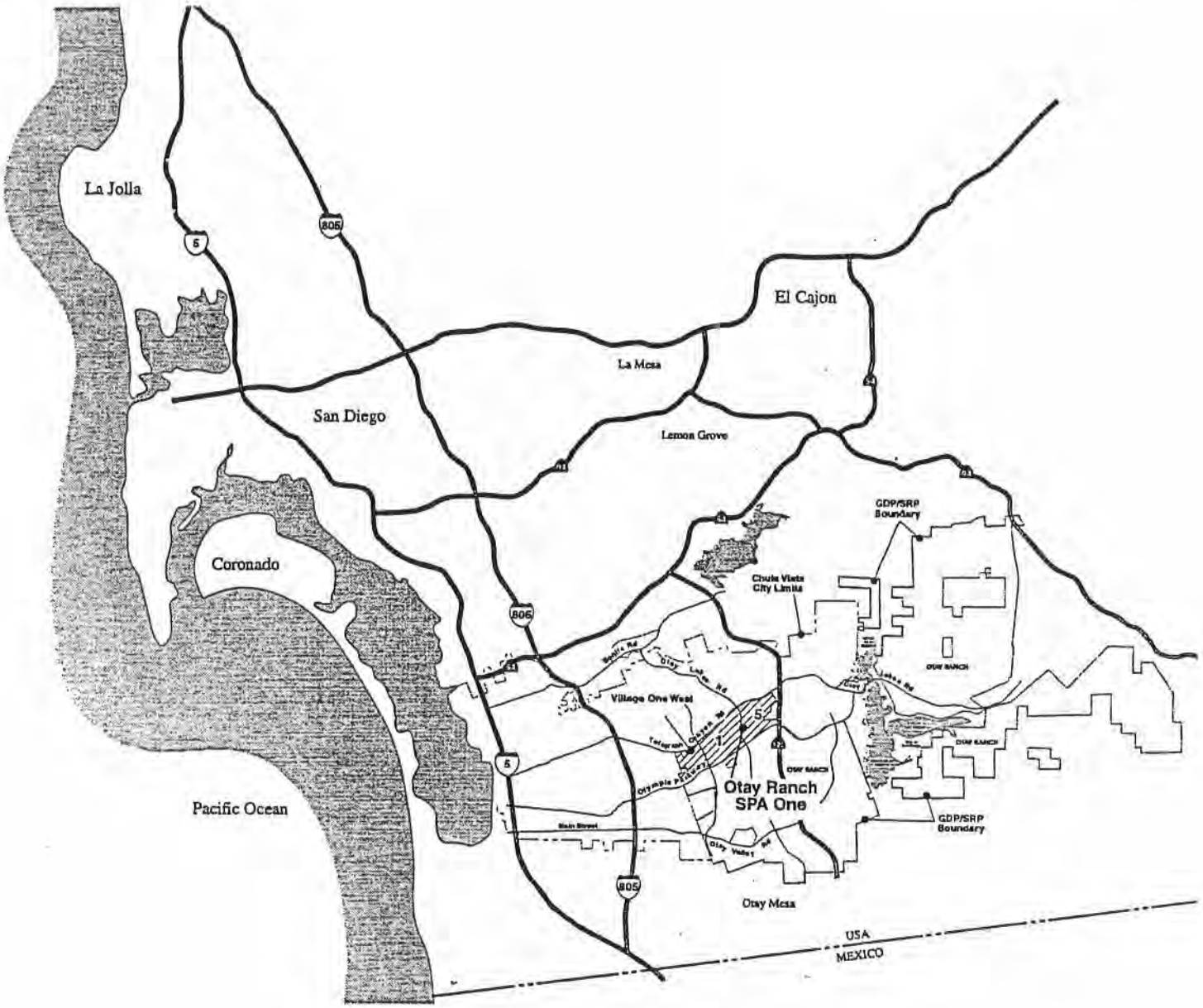


Exhibit I
Regional Location Map

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2.0 Land Use Assumptions

2.1 Purpose

The purpose of this section of the PFFP is to quantify how the Otay Ranch SPA One project will be analyzed in relationship to all other projects which are at some stage in the City's development process. The Growth Management Program addressed the issue of development phasing in relationship to location, timing, and fiscal/economic considerations.

Based upon the overall elements to be considered when projecting the phasing of development and policies contained in the Growth Management Program, the City was able to forecast where and when development will take place and produced a 5 to 7 year Development Phasing Forecast. Since the approval of the Growth Management Program, the development phasing forecast has been updated and will be updated annually as facility improvements are made and the capacity for new development becomes available.

The specific factors which effect the development phasing forecast include the status of development approvals and binding development agreements, and the future construction of State Route 125. These components were reviewed as part of this PFFP in conjunction with the requirement to provide facilities and services, concurrent with the demand created by the Otay Ranch SPA One project, to maintain compliance with the threshold standards.

The management of future growth includes increased coordination of activities of the various City departments as well as with both school districts and water districts that serve the City of Chula Vista. The development phasing forecast enables the City to prioritize and maximize limited staff resources in order to focus efforts on the highest priority projects in the forecast. The development phasing forecast (5 to 7 years) is a method that will be used to effectively and efficiently manage future development.

As indicated in the Growth Management Program, accuracy of the forecast is dependent upon numerous outside influences that affect the overall demand for new development. The first 12 to 18 months of the forecast will be more accurate and subsequent years less accurate due to lower levels of development approval and corresponding agreements to provide public facilities. These later years are subject to change and will become more accurate as development entitlements are obtained and public facilities are guaranteed.

The PFFP for Otay Ranch SPA One will analyze the demand from existing development and those projects with approved final and tentative maps. Projects that currently have a final or tentative map may have committed facility capacity and are therefore considered the "approved" projects. Then, the PFFP uses the proposed phasing of the Otay Ranch SPA One project, as shown in the Sectional Planning Area Plan (SPA), to determine the impacts associated with each phase of the project. (It should be noted that the "approved" project list is used for analytical purposes only and unless a development agreement or other legal instrument guarantees facility capacity, some projects with Tentative Map approvals only may not have committed capacity).

2.2 Existing Development

As a starting point, the PFFP considers all existing development up to July 1997 as the base condition. This information is based upon City of Chula Vista Planning Department growth management monitoring data. According to this data, the population of the City as of July, 1997 was estimated to be 157,427.

For the purposes of projecting facility demands for SPA One, the City of Chula Vista utilizes a population coefficient of 2.88 persons per dwelling unit. This factor is used throughout this Public Facilities Finance Plan to calculate facility demands from approved projects. The Planning Department has confirmed this coefficient for use in the PFFP. The same coefficient will be used for calculating the specific Otay Ranch SPA One project facility demands.

2.3 Approved Projects

The total number of dwelling units remaining for building permit issuance within "Approved" Projects as of July, 1997 was 8,680 dwelling units. Additionally, there are 213.6 acres of industrial and 361.2 acres of commercial land remaining for permit issuance in the "Approved" Project category. An "Approved" Project is defined as any project that has attained approved Tentative Map status, but has not yet been issued a building permit. Approved projects are considered to have committed facility capacity.

A summary of the latest development phasing forecast is shown in Table 3. The table reflects total dwelling units, and industrial and commercial acres remaining for building permit issuance as of July 1997, as well as an estimate of the amount of development activity anticipated to the year 2005 (approx. 5-7 years from 1997).

2.4 Otay Ranch SPA One Development Summary

The Otay Ranch SPA One project is proposed to include a total of 6,121 residential dwelling units and other land uses constructed in eleven (11) phases within SPA One (Villages One, Five and One West) as shown in Exhibits 2, 3, 4 and 5.

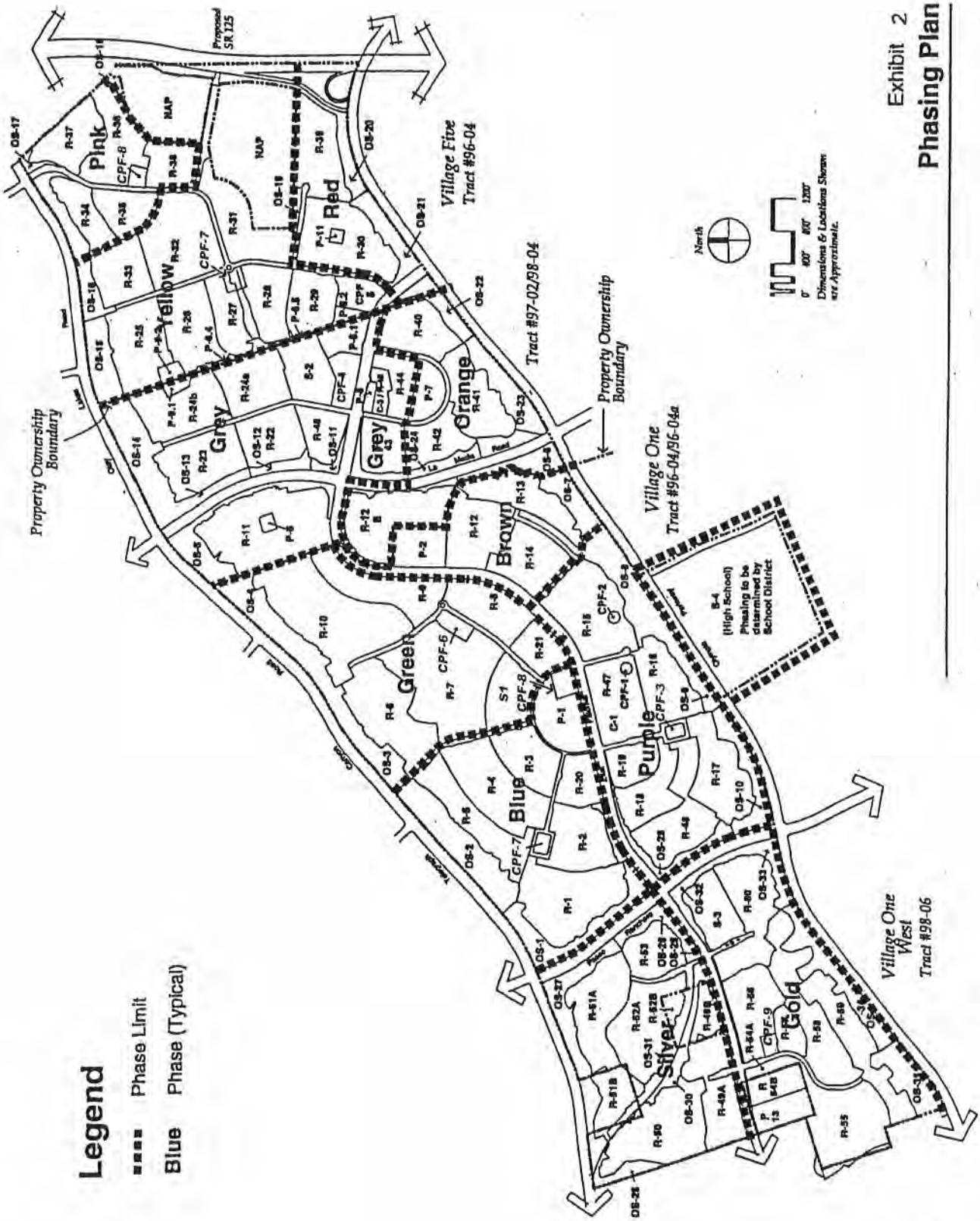
Also included within SPA One are 10.9 acres of commercial, 45.0 acres of neighborhood parks, 15.1 acres of community purpose facilities, 31.3 acres of schools, 240 acres of open space and 113.7acres of circulation facilities.

TABLE 3
DEVELOPMENT PHASING FORECAST (5 TO 7 YEARS) SUMMARY

Development	Assessment District Number	Tract Number	Dwelling Units Remaining on 7-97	Commercial Acres Remaining on 7-97	Industrial Acres Remaining on 7-97	Units to Year 2005	Commercial Acres to Year 2005	Industrial Acres to Year 2005
Brehm Terra Nova		89-14	20			20		
Corona Vista		87-1	2			2		
EastLake Bus. Ctr, Phase 1	88-1	84-9	0		58.8			58.8
EastLake Bus. Ctr. Phase 2	88-1		0		102.6			102-6
EastLake Village Center	90-3	84-9		75.7			37.9	
EastLake Greens[10]	90-3, 94-1		1,641	87.0		1,238		
EastLake Trails			1,143			1,143		
EastLake III Vistas			1,092			433		
East Palomar Estates			7			7		
Olympic Training Center[11]								
Rancho del Rey I	87-1	88-1	54	15.7	15.9	54		
Rancho del Rey II	87-1	89-5	285			285		
Rancho del Rey III		90-2	823			823		
RDR Business Center	87-1		0	10.3	14.5		10.3	
San Miguel Ranch			1,394	13.9		813	7.0	
Salt Creek I (Rancho La Cuesta)	90-1	89-9	0			0		
Salt Creek II (Rolling Hills Ranch)		92-2	2,609			1,310		
Sunbow II	87-8		1,946	11.0	46.0	1,055	5.0	
Telegraph Cyn. Estates		93-3	89			89		
Vista Mother Miguel			43			43		
Bonita Meadows			290			290		
Otay Valley Rd. Redev.		Several			123.4	0		
Otay Ranch	97-2, 97-3		11,484			1,075		
Totals			**22,922**	**361.2**	**213.6**	**8,680**	**60.2**	**161.4**

10 Unit figures based on entitlements of the original TM #88-3 (2,2774 units), and 7/94 amendments to the TM #88-3A which added 97 units. Also includes development for area designated "EastLake Greens Landscap.)

11 OTC map includes 300 beds for athletes.


Exhibit 2
Phasing Plan
Legend
Phase Limit
Blue Phase (Typical)
Village Five
Tract #96-04
Tract #97-02/98-04
Property Ownership Boundary
Village One
Tract #96-04/96-04a
Village One West
Tract #98-06
Proposed SR 125
Pink
Red
Yellow
Grey
Orange
Brown
Green
Blue
Purple
Silver
Gold
S-4 (High School) Phasing to be determined by School District
North
Dimensions & Locations Shown are Approximate.



Village One Land Use Summary

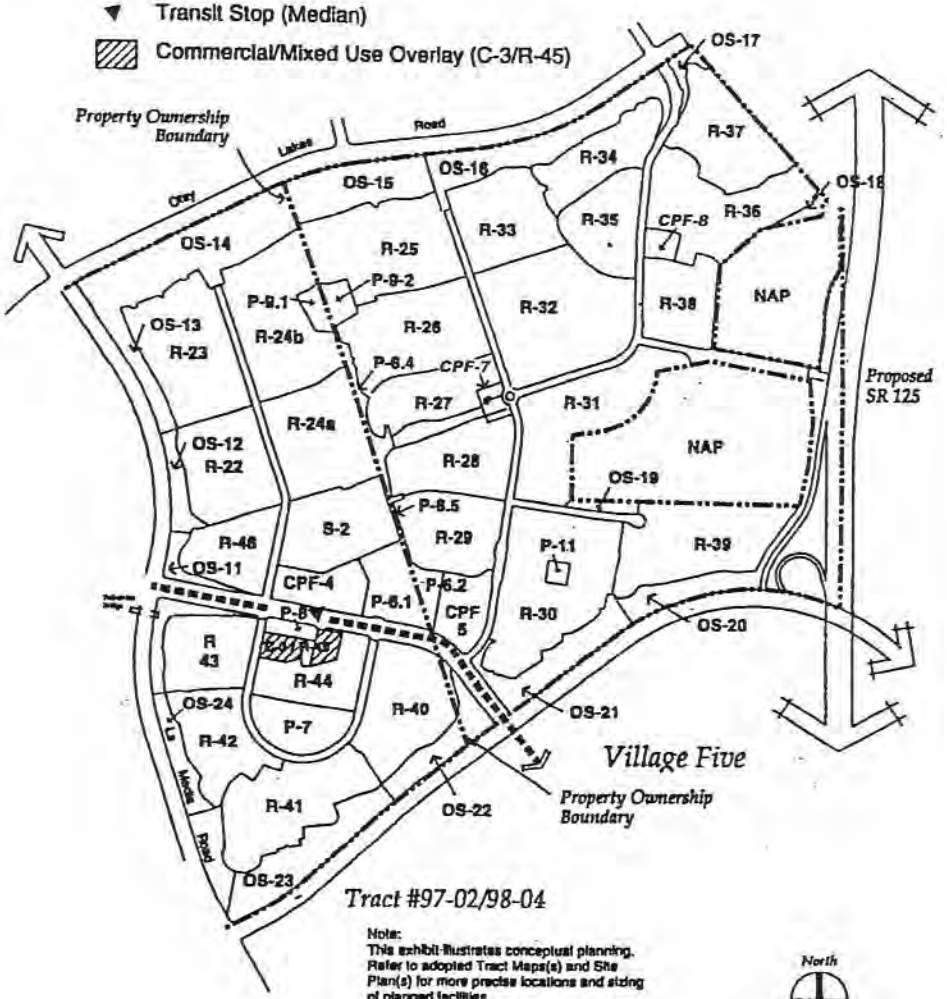
Neighborhood Area	Land Use	Acreage	Dwelling Units	Target DUs/AC
R-1	SF	23.1	86	3.7
R-2	SF	13.4	81	6.0
R-3	SF	10.5	75	7.1
R-4	SF	19.7	94	4.8
R-5	SF	14.9	72	4.8
R-6	SF	21.6	77	3.6
R-7	SF	31.2	131	4.2
R-8	SF	12.5	61	4.9
R-9	SF	16.4	74	4.5
R-10	SF	32.3	123	3.8
R-11	SF	28.3	120	4.2
R-12	SF	14.5	83	5.7
R-12E	SF	16.4	109	6.6
R-17	SF	17.1	99	5.8
R-18	SF	10.3	74	7.2
R-48	SF	16.5	97	5.9
	Subtotal SF	298.6	1,456	
R-13	MF	9.6	88	9.6
R-14	MF	16.6	139	8.4
R-15	MF	16.3	464	28.6
R-16	MF	14.5	115	7.9
R-19	MF	6.8	204	30.0
R-20	MF	6.6	160	24.2
R-21	MF	7.0	168	24.0
R-47	MF	4.4	174	39.5
	Subtotal MF	81.8	1,512	
	TOTAL DUs	380.6	2,968	
P-1	Park	11.8		
P-2	Park	6.4		
	Subtotal Park	18.8		
CPF-1	CPF	1.5		
CPF-2	CPF	4.5		
CPF-3	Park	0.8		
CPF-6	Park	2.2		
CPF-7	Park	0.8		
CPF-8	Park	0.8		
	Subtotal CPF	10.6		
S-1	School	10.4		
OS	O.S.	93.8		
Circulation	Street	57.7		
	Subtotal	161.9		
	Village One Total	591.1		
Village 2				
S-4	School	50.0		

Exhibit 3

Village One Land Use Plan

Legend

- Preferred Trolley Alignment
- Transit Stop (Median)
- Commercial/Mixed Use Overlay (C-3/R-45)



Note:
This exhibit illustrates conceptual planning. Refer to adopted Tract Maps(s) and Site Plan(s) for more precise locations and sizing of planned facilities.

North

0' 400' 800' 1200'

Dimensions & Locations Shown are Approximate.

Village Five Land Use Summary

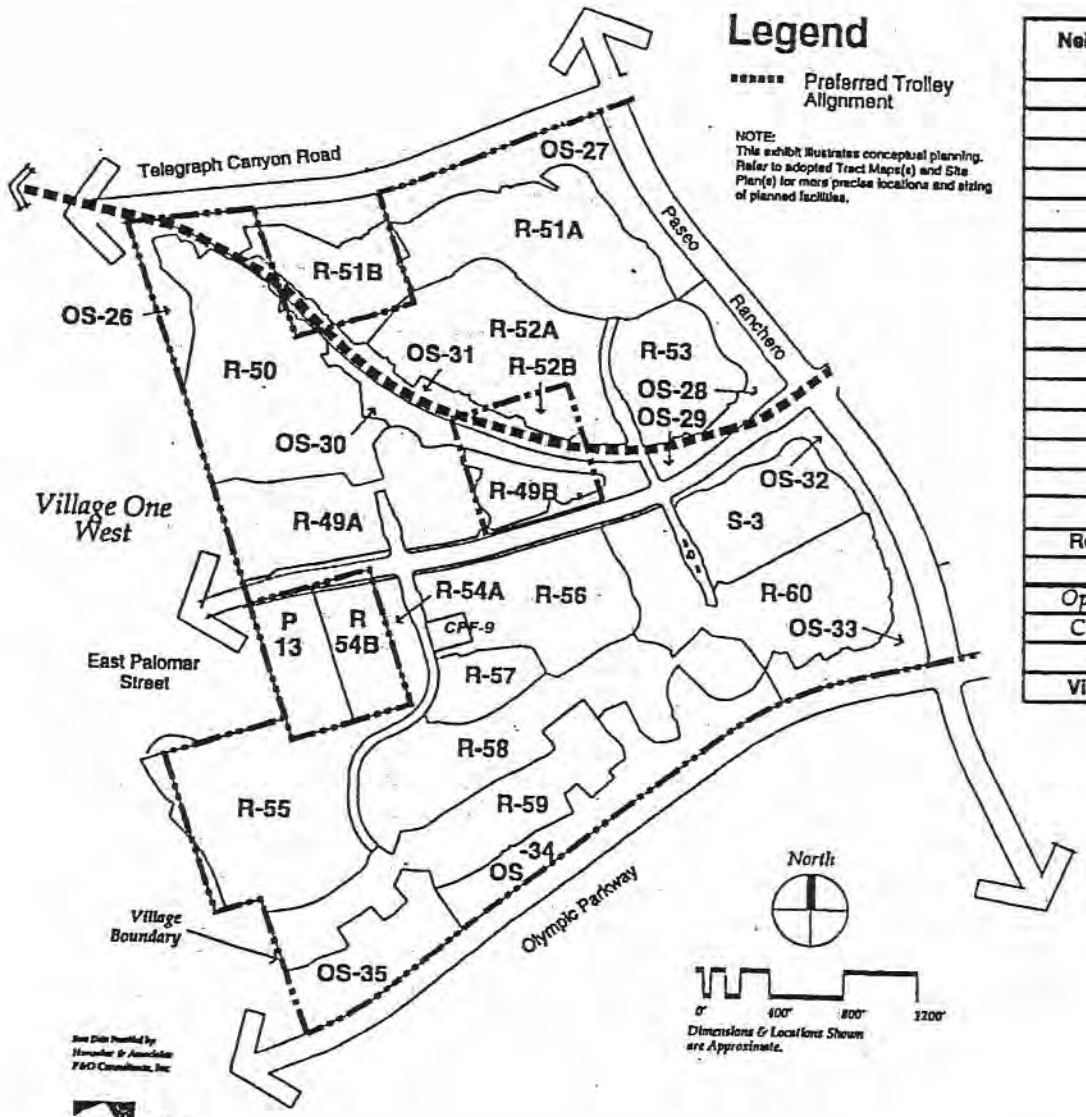
Neighborhood Area	Land Use	Acreage	Dwelling Units	Target DUs/AC
R-23	SF	15.3	87	5.7
R-24	SF	28.9	138	4.8
R-25	SF	16.2	73	4.5
R-26	SF	15.5	78	5.0
R-27	SF	11.8	58	4.9
R-28	SF	11.9	82	6.9
R-30	SF	22.0	145	6.6
R-31	SF	18.5	83	4.5
R-32	SF	23.1	113	4.9
R-33	SF	11.7	55	4.7
R-34	SF	9.0	40	4.4
R-35	SF	9.8	40	4.1
R-36	SF	13.3	69	5.2
R-37	SF	11.9	66	5.5
R-38	SF	7.7	45	5.8
R-41	SF	14.4	90	6.3
	Subtotal SF	241.0	1,262	5.2
R-22	MF	11.4	86	7.5
R-29	MF	10.4	90	8.7
R-39	MF	15.6	182	11.7
R-40	MF	12.4	201	16.2
R-42	MF	9.6	74	7.7
R-43	MF	8.2	240	29.3
R-44	MF	6.8	210	30.9
R-46	MF	7.2	117	16.3
	Subtotal MF	81.6	1,200	14.7
C-3/R-45	MU	2.9	18	6.2
	Subtotal MU	2.9	18	6.2
	Total Residential	325.5	2,480	7.6
P-6.1	Park	5.3		
P-6.2	Park	1.5		
P-7	Park	5.7		
P-9.1	Park	1.0		
P-9.2	Park	1.0		
	Subtotal Park	14.5		
CPF-4	CPF	4.8		
CPF-5	CPF	5.3		
CPF-7	CPF	1.3		
CPF-8	CPF	1.1		
	Subtotal CPF	12.5		
S-2	School	10.0		
OS	O.S.	90.2		
Int Circ	Street	20.5		
Ext Circ	Street	20.3		
	Subtotal	141.0		
	Village Five Total	475.6		

Exhibit 4

Village Five Land Use Plan

Base Data Provided by:
Hunsaker & Associates
P&D Consultants, Inc.

Development Design Services & Graphic Arts, Inc.
Village 5.Apr 3/99



Village One West Land Use Summary

Neighborhood Area	Land Use	Acreage	Dwelling Units	Target DUs/AC
R-49A	SF	15.1	89	5.9
R-49B	SF	4	27	6.8
R-50	SF	21.5	84	3.9
R-51A	SF	16.9	65	3.8
R-51B	SF	8	24	3.0
R-52A	SF	17.8	67	3.8
R-52B	SF	1.7	8	4.7
R-53	SF	9.1	36	4.0
R-54	SF	6.2	39	6.3
R-55	SF	21	87	4.1
R-56	SF	16.5	75	4.5
R-57	SF	19.9	94	4.7
R-58	SF	18.2	60	3.3
R-59	SF	18.5	106	5.7
R-60	SF	7.3	49	6.7
Residential Subtotal		201.7	910	4.6
P-13	Park	5.6		
Open Space	OS	63.4		
Circulation	Street	37.3		
CPF-9	CPF	0.5		
Village One West Total		308.5		

Exhibit 5
Village One West Land Use Plan

Table 4
OTAY RANCH VILLAGES ONE, FIVE AND ONE WEST
LAND USE SUMMARY

	PHASE											
	Village 1				Vil 1E/Vil 5 W		Village 5			Village 1 W		
LAND USE	Blue	Green	Brown	Purple	Grey	Orange	Pink	Yellow	Red	Gold	Silver	DUs/ACs
The Otay Ranch Company												
VILLAGE 1												
SF Detached Subtotal	408	466	83	270								1,227
SF Attached Subtotal												0
MF Subtotal	160	168	227	867								1,422
Village 1 Res Subtotal	**568**	**634**	**310**	**1,137**								**2,649**
Commercial				8.1								**8.1**
CPF				6.0								**6.0**
School		10.6										**10.6**
Park	12.4	2.1	7.0	0.8								**22.3**
McMillin Companies												
VILLAGE 1 EAST												
SF Detached Subtotal					120	109						**229**
SF Attached Subtotal												
MF Subtotal												
Village 1 E Res Subtotal					**120**	**109**						**229**
Commercial												
CPF												
School												
Park					0.8							**0.8**
Total SF Detached	***408***	***466***	***83***	***270***	***120***	***109***						***1,456***
Total SF Attached												***0***
Total MF	***160***	***168***	***227***	***867***								***1,422***
TOTAL DWELLING UNITS	***568***	***634***	***310***	***1,137***	***120***	***109***						***2,878***

Table 4 (Continued)

	PHASE											
	Village 1				Village 1E/5W		Village 5			Village 1W		
LAND USE	Blue	Green	Brown	Purple	Grey	Orange	Pink	Yellow	Red	Gold	Silver	DUs/ACs
McMillin Companies												
VILLAGE 5 WEST												
SF Detached Subtotal					225	90						315
SF Attached Subtotal					207	74						281
MF Subtotal					458	201						659
Village 5 West Res Subtotal					**890**	**365**						**1,255**
Commercial					2.8							**2.8**
CPF					4.8							**4.8**
School					10.0							**10.0**
Park					6.2	6.7						**12.9**
The Otay Ranch Company												
VILLAGE FIVE EAST												
SF Detached Subtotal							236	478	119			**833**
SF Attached Subtotal								83	182			**265**
MF Subtotal												**0**
Village 5 East Res Subtotal							**236**	**561**	**301**			**1,098**
Commercial												
CPF								4.7				**4.7**
School												
Park							1.3	2.5	0.6			**4.4**
TOTAL VILLAGE FIVE												
SF Detatched					***225***	***90***	***236***	***478***	***119***			***1,148***
SF Attached					***207***	***74***		***83***	***182***			***546***
MF					***458***	***201***						***659***
TOTAL DWELLING UNITS					***890***	***365***	***236***	***561***	***301***			***2,353***
Commercial					**2.8**							**2.8**
CPF					**4.8**			**4.7**				**9.5**
School					**10.0**							**10.0**
Park					**6.2**	**6.7**	**1.3**	**2.5**	**0.6**			**17.3**
The Otay Ranch Company												
Village One West												
SF Detatched Total										**408**	**482**	**890**
School											**10.7**	**10.7**
Park											**5.1**	**5.1**

Table 4 Continued

	PHASE											
	Village 1				Village 1E/5W		Village 5			Village 1W		
LAND USE	Blue	Green	Brown	Purple	Grey	Orange	Pink	Yellow	Red	Gold	Silver	DUs/ACs
SPA One Combined Total												
SF Detached Totals	408	468	83	270	345	199	236	478	119	408	482	3,494
SF Attached Totals					207	74		83	182			546
MF Totals	160	168	227	867	458	201						2,081
Total Dwelling Units	**568**	**636**	**310**	**1,137**	**1,010**	**474**	**236**	**561**	**301**	**408**	**482**	**6,121**
Commercial				8.1	2.8							10.9
CPF				6.0	4.8			4.7				15.1
School		10.6			10.0						10.7	31.3
Park	12.4	2.1	7.0	0.8	7.0	6.7	1.3	2.5	0.6		5.1	45.5

2.5 Otay Ranch SPA One Equivalent Dwelling Units

Transportation

The following equivalent dwelling units (EDUs) apply to the calculation of impact fees in accordance with Ordinance No. 2580 for Transportation and No. 2579 for Interim Pre-SR125 facilities.

The Transportation Development Impact Fee beginning January 1, 1995 is $3,998 per EDU. Each new single family detached dwelling shall be considered one EDU for the purposes of this fee. A single family attached dwelling shall be 0.8 EDUs. A unit within a multi-family dwelling shall be considered 0.6 EDUs. Commercial/Office shall be charged at the rate of 25.0 EDUs per gross acre of land while Industrial is 20.0 EDUs per acre. Religious Institutional land uses are 4.0 EDUs per acre.

The Interim Pre-SR125 Development Impact Fee beginning January 1, 1995 is $820 per EDU. The same EDU rates apply to the Interim Pre-SR125 Development Impact Fee as for the Transportation Development Impact Fee.

Table 5
EQUIVALENT DWELLING UNITS (EDUS) BY PHASE FOR TRANSPORTATION AND INTERIM PRE-SR 125 FACILITIES

	EDU/Land Use						
Development Phase	SFD	SFA	MF	Com'l	CPF	Ind	EDU/Phase
Village 1							
Blue	408.0	-	96.0				504.0
Gren	466.0	-	100.8				566.8
Brown	83.0	-	136.2				219.2
Purple	270.0	-	520.2	202.5	24.0		1,016.7
Village 1E/5W							-
Grey	345.0	165.6	274.8	70.0	19.2		874.6
Orange	199.0	59.2	120.6				378.8
Village Five							-
Pink	236.0	-	-				236.0
Yellow	478.0	66.4	-		18.8		563.2
Red	119.0	145.6	-				264.6
Village 1W							-
Silver	408.0	-	-				408.0
Gold	482.0	-	-				482.0
TOTAL SPA One	**3,494.0**	**436.8**	**1,248.6**	**272.5**	**62.0**		**5,513.9**

Public Facilities

The following table of equivalent dwelling units (EDUs) applies to the calculation of impact fees in accordance with Ordinance No. 2554 for public facilities. The current Public Facilities Development Impact Fee is $2,150 per EDU. The fee funds, in part, the following facilities:

1.	Civic Center Expansion	$ 526
2.	Police Facility and Equipment	235
3.	Corporation Yard Relocation	235
4.	Libraries	515
5.	Fire Suppression System	141
6.	GIS	49
7.	Computer Systems	23
8.	Telecommunications	32
9.	Records Management System	5
	Subtotal	$2,071
10.	PFDIF Administration	79
	TOTAL	$2,150

Each new single family detached dwelling, single family attached dwelling, or unit within a multi-family dwelling in a Development Project shall be considered one EDU for purposes of this fee. Commercial/Office and Industrial development Projects shall be charged at the rate of 5 EDUs per gross acre of land. The EDU rate for each CPF use shall be charged at the rate of 3 EDUs per gross acre of land.

The calculations of PFDIF due for each facility addressed in the following sections of this report do not include the $79 PFDIF "Administration" fee. However, this amount is collected as part of the $2,150 fee per EUD.

Table 6
EDUS BY PHASE FOR PUBLIC FACILITIES

	EDU/Land Use				Total
Development Phase	Residential	Commercial	CPF	Industrial	EDU/Phase
Village 1					
Blue	568.0				568.0
Green	634.0				634.0
Brown	310.0				310.0
Purple	1,137.0	40.5	18.0		1,195.5
Village 1E/5W					-
Grey	1,010.0	14.0	14.4		1,038.4
Orange	474.0				474.0
Village 5					-
Pink	236.0				236.0
Yellow	561.0		14.1		575.1
Red	301.0				301.0
Village 1W					-
Silver	408.0				408.0
Gold	482.0				482.0
TOTAL SPA ONE	**6,121.0**	**54.5**	**46.5**		**6,222.0**

3.1 Facility Analysis

This portion of the PFFP contains 13 separate subsections for each facility addressed by this report. Of the 13 facilities, 11 have adopted threshold standards, except Civic Center and Corporation Yard.

The following figure highlights the level of analysis for each facility:

Table 7
LEVEL OF ANALYSIS

Facility	Citywide	East of I-805	Service Area Sub-basin	Special District
Traffic	✓	✓		
Police	✓			
Fire/EMS	✓		✓	
Schools				✓
Libraries	✓			
Parks & Recreation		✓		
Water			✓	✓
Sewer			✓	
Drainage			✓	
Air Quality	✓			
Fiscal[13]	✓		✓	
Civic Center[14]				
Corporation Yard[14]				

Each subsection analyzes the impact of the Otay Ranch SPA One Project based upon the adopted Quality of Life Standards. The analysis is based upon the specific goal, objectives, threshold standards and implementation measures. The current master plan or documents that are being used in place of a completed master plan is used to determine facility adequacy and is referenced within the facility section.

13 Fiscal is analyzed on a project-by-project basis.

14 Specific Threshold Standards have not been developed for these facilities.

Each analysis is based upon the specific project processing requirements for that facility, as adopted in the Growth Management Program. These indicate the requirements for evaluating the project consistency with the threshold ordinance at various stages (General Development Plan, Sectional Planning Area Plan/Public Facilities Finance Plan, Tentative Map, Final Map and Building Permit) in the development review process.

A service analysis section is included which identifies the service provided by each facility. An existing facilities inventory is included along with those future improvements which are guaranteed through the conditioning of an "Approved" project or are scheduled to be made in the City's adopted Capital Improvement Budget.

The existing plus approved demands for the specific facility are identified in the subsection based upon the adopted threshold standard.

Each facility subsection contains an adequacy analysis followed by a detailed discussion indicating how the facility is to be financed. The adequacy analysis provides a determination of whether or not the threshold standard is being met and the finance section provides a determination if funds are available to guarantee the improvement. If the threshold standard is not being met, mitigation is recommended in the Threshold Compliance subsection which proposes the appropriate conditions or mitigation to bring the facility into conformance with the threshold standard.

3.2 Traffic

3.2.1 Threshold Standard

1. City-wide: Maintain Level Of Service (LOS) "C" or better, as measured by observed average travel speed on all signalized arterial segments except that during peak hours an LOS of "D" can occur for no more than any two hours of the day.

2. West of Interstate 805: Those signalized intersections which do not meet the standard above may continue to operate at their current LOS, but shall not worsen.

3.2.2 Service Analysis

The City of Chula Vista, through the Public Works Department, is responsible for ensuring that traffic improvements are provided to maintain a safe and efficient street system within the City. Through project review, City staff ensures the timely provision of adequate local circulation system capacity in response to planned development while maintaining acceptable levels of service. Planned new roadway segments and signalized intersections will maintain acceptable standards at the build-out of the City's general plan and circulation element.

The traffic threshold standard will be analyzed by the following:

1. LOS measures shall be for the average weekday peak hour, excluding seasonal and special circumstance variations.

2. The measurement of LOS shall be by the *1985 Highway Capacity Manual* (HCM) method of calculation, using the City's published circulation element design standards.

3. Intersection of City arterials with freeway ramps shall be excluded from this policy.

4. Circulation improvements shall be implemented prior to anticipated deterioration of LOS below established standards.

The Circulation Element of the General Plan serves as the overall facility master plan. Additionally, the Eastern Chula Vista Transportation Phasing Plan (ECVTPP) provides additional information relevant to the phasing of development and necessary improvements required in the area east of Interstate 805.

In March 1990, Urban Systems Associates, Inc. (USA) prepared the report for the Otay Ranch entitled Transportation Analysis for the Otay Ranch General Plan Amendment. That study was expanded for the SPA through the traffic analysis prepared by BRW, Inc, in conjunction with the preparation of the SPA One Environmental Impact Report. This SPA One traffic analysis is entitled Otay Ranch SPA One Transportation Study dated January 1996 by BRW, Inc. A subsequent transportation analysis entitled *Traffic Impact Analysis Otay Ranch SPA One Amendment* dated June, 18, 1998 was prepared by Linscott, Law and Greenspan in conjunction with preparation of the *Second Tier Environmental Impact Report for the Proposed Otay Ranch SPA One and GDP/SRP Amendments*. The SPA One traffic analyses address both existing and planned circulation system conditions. The studies detail necessary improvements and outline the incremental circulation improvements based upon planned project phasing. The studies also include an evaluation of impacts that are considered significant as a result of SPA One development.

Freeway Segments

The California State Department of Transportation (Caltrans) recommends LOS E or better as acceptable for freeways. Caltrans is currently in the process of planning and implementing ramp meters at freeway on-ramps to assist in maintaining acceptable traffic flow on the freeway network. The mitigation of impacts on arterial segments as a result of the implementation of these meters will be the responsibility of Caltrans.

Arterial Roadway Segments

The City of Chula Vista and the County of San Diego recommend that arterial segments located in largely undeveloped areas maintain level of service C or better. However, as discussed in the original *Otay Ranch SPA One Transportation Study,* LOS D or better is considered to be an acceptable level of service during the period 1995 to 2010 (buildout) time frame, given the limited circulation network and the programming of new roadway extensions to provide additional capacity and congestion relief.

Peak Hour Intersections

While roadway levels of service based on daily traffic volumes are useful as a general indication of traffic operating conditions, peak hour operations at major signalized intersections provide a more definitive measure of the actual functional capacity of the circulation network. It is for this reason that intersection performance, which relates to the ability of signalized intersections to operate at acceptable levels of service during peak hours, is considered the primary determinant of adequate operations. For peak hour intersection operations, LOS D or better is considered acceptable.

3.2.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans:

1. Identify phased traffic demand and demonstrate compliance with the "Eastern Chula Vista Transportation Phasing Plan".
2. Identify on-site and off-site impacts and improvements by phase of development.
3. Provide cost estimates for all improvements.

3.2.4 Existing Conditions

The following paragraphs provide a description of the freeway segments, arterial roadway segments, and peak hour intersections in the vicinity of the proposed project and the latest traffic count data. The following paragraphs provide a description of the existing levels of service for the segments in the vicinity of the proposed project.

Freeway Segments

Portions of SR-54, I-805 and SR-905 were analyzed under existing conditions. The results of the analysis found that all facilities operate at acceptable LOS E or better in the vicinity of SPA One. However, portions of I-805 located to the north were found to operate at an unacceptable LOS F during the peak hours including the segments from I-8 to Home Avenue and Imperial Avenue to 47th Street.

Arterial Segments

The existing conditions analysis found that all north-south streets operate at an acceptable level of service. However, several east-west streets currently operate at an unacceptable LOS E or F, including portions of Bonita Road, Sweetwater Road, Central Avenue, H Street (west of I-805) and "L" Street (west of I-805). The majority of these segments are located north of the Otay Ranch project in northern Chula Vista and the communities of Bonita and Sweetwater Valley.

Peak Hour Intersections

Two signalized intersections were found to currently operate at an unacceptable level of service during the peak hours. The Bonita Road/Central Avenue intersection operates at LOS F during the AM and PM peak hour only. Significant delays for certain turning movements results in unacceptable levels of service during the peak hours at five unsignalized intersections. These include Sweetwater Road/Central Avenue, Rutgers Avenue/Otay Lakes Road, I-805

Southbound and Northbound Ramps/Olympic Pkwy. and Briarwood Road/Sweetwater Road.

3.2.5 Transit

Processing Requirements

The Otay Ranch GDP Mitigation Measures provide that "applicants on the Otay Valley Parcel shall contribute their 'fair share' to the capital and operating costs for transit facilities serving the project. This shall be done through processing in facility financing plans at the SPA level."

The measure identifies the establishment of benefit assessment districts to fund new transit routes under MTDB Board Policy No. 40 (Non-Transit Funding of Transit Services). The mitigation measure states the measure is to be interpreted as a requirement that applicants work with MTDB because the Lead Agency cannot mandate MTDB to take an action.

A proposed GDP amendment will require the eventual reservation of right-of-way for the trolley station and light rail transit alignment consistent with the following requirements:

Transit line rights-of-way shall be approximately located at the SPA level and will be conditioned for dedication at the Tentative Map level within Villages One, Five Six, Nine and Twelve.

Trolley stops and/or stations shall be approximately located at the SPA level and will be conditioned for dedication at the Tentative Map level within village core areas.

Background

In March 1993, MTDB accepted the South Bay Public Transportation Plan that identified a "conceptual" transit network for the South County. The network and the GDP transit plans are consistent with each other. The Plan includes the identification of a light rail transit (LRT) line

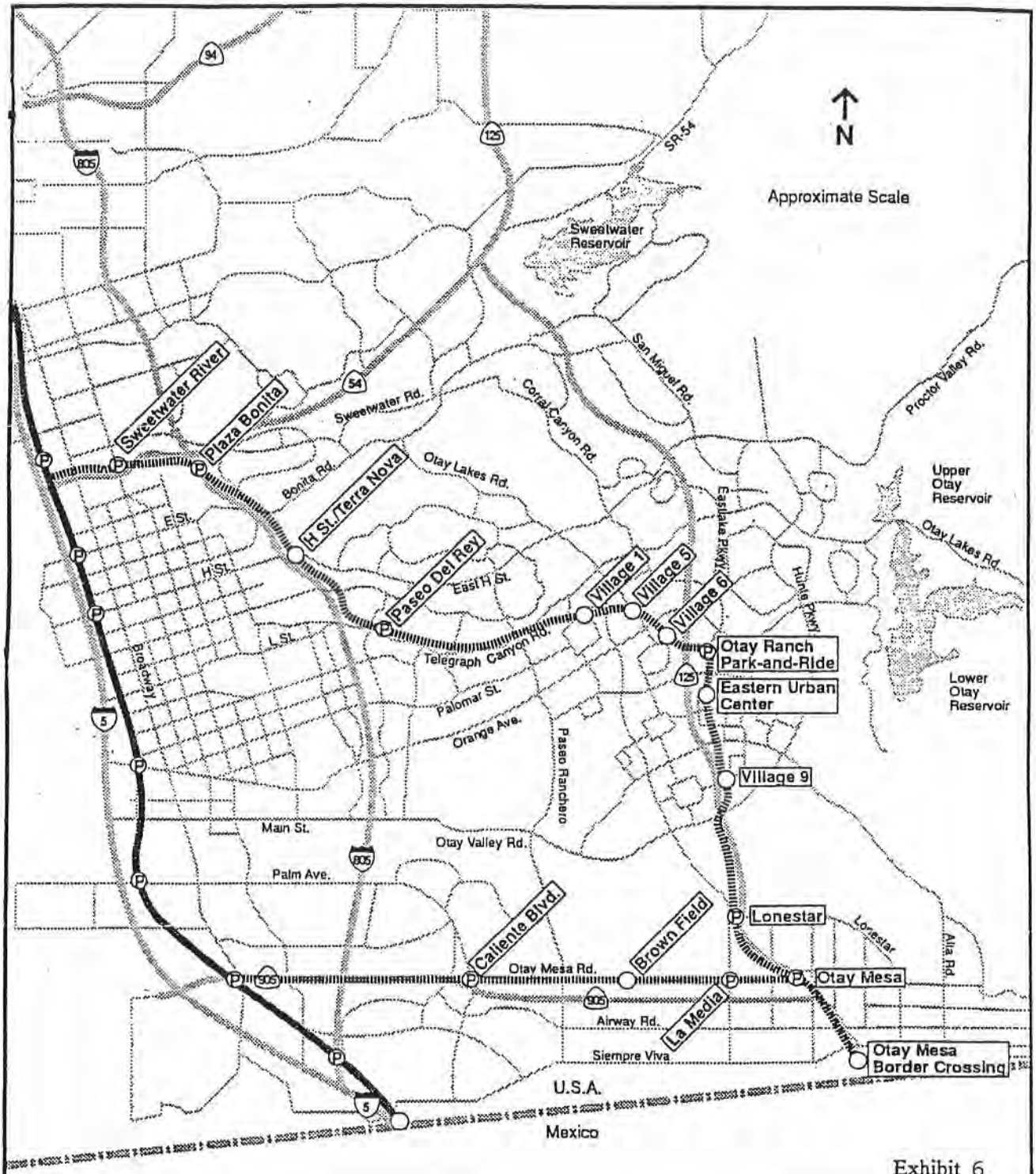
paralleling SR-54 from I-5 to I-805, I-805 from SR-54 to Telegraph Canyon Road, and Telegraph Canyon Road from I-805 to Village One of Otay Ranch. The transit route then traverses Otay Ranch Villages One and Five, the freeway commercial portion and the center of the Eastern Urban Center, Village Nine, the Otay River Valley and connects with I-905 on Otay Mesa. The route then parallels Otay Mesa Road/I-905 to connect with the LRT near I-5. The route is approximately 23 miles long with 17 transit stations. (See Figure 5A, South Bay Conceptual LRT Network.)

Service Area

In addition to crossing Otay Ranch, the proposed LRT line serves two Otay Mesa community planning areas with substantial residentially zoned land and massive industrial areas. The Otay Mesa Community Plan (City of San Diego) calls for an ultimate population of 46,000 residents in 18,000 dwelling units, with accompanying commercial and other public support land uses on approximately 20,000 acres. Industrial land uses would utilize approximately 4,000 acres and create 140,000 jobs. The East Otay Mesa Community Plan (County of San Diego) consists of approximately 2,000 acres that is slated for industrial development and is expected to employ around 42,000 people.

The MTDB identifies six existing activity centers that would be served by a light rail transit line:

- Plaza Bonita (existing commercial center),
- EastLake Business Park (existing employment center),
- H Street/Terra Nova (existing commercial center),
- Southwestern College (existing major destination),
- Otay Mesa Industrial Park (existing major employment center in the City of San Diego),
- Otay Mesa Border Crossing.



MTDB

South Bay Conceptual LRT Network

- Existing Rail
- Proposed Rail
- Rail Station
- Park-and-Ride/Rail Station

MTDB identified two planned activity centers which could be served as more development takes place,

- Otay Ranch Eastern Urban Center,
- East Otay Mesa (future industrial center in the County of San Diego).

Funding Alternatives

The South Bay Public Transportation Plan identifies two potential funding sources for this transit system. The first is a benefit assessment mechanism under MTDB Policy No. 40. The second is the federal funding tied to the implementation of the North American Free Trade Agreement (NAFTA).

Proposition A earmarked one-third of the half-cent sales tax revenues for transit facilities. However, since the Proposition A half-cent sales tax facility pre-dates consideration of a South Bay Public Transportation Plan, that funding source cannot be utilized for construction of this route.

The South Bay Public Transportation Plan estimated that the cost for the light rail transit system would be approximately $833 million (1993 dollars).

Apportionment of Benefit

There are several different methodologies by which a portion of the light rail transit system costs could be allocable to a LRT segment within the boundaries of Otay Ranch. One method ("Mileage") assumes Otay Ranch's allocation is proportionate to the cost of the entire system based upon mileage. That is, the Otay Ranch portion of the LRT system would cover approximately 4.5 miles of the 23 mile system or, 20% of the system.

A second methodology ("Mileage Plus River Valley") is similar to the mileage approach except that the center of the route traversing the planned Otay Valley Regional Park. If this one-mile segment is added to the mileage methodology, Otay Ranch would constitute 5.5 miles of a 23 mile system or about 24% of the system.

A third method ("Stations") calculates the proportionate costs based on the number of stations serving an area. Since six of the system's 17 stations are located within Otay Ranch, the Ranch's proportionate share would be 35% of the system.

Below is a summary of the three methodologies discussed above.

Methodology	Factors	Percentage
Mileage	4.5 miles of 23 miles	20%
Mileage Plus River Valley	5.5 miles of 23 miles	24%
Stations	6 stations of 17 stations	35%

The analysis above outlines ways to allocate the Otay Ranch portion of LRT system costs to Otay Ranch. This is a starting point from which to interpret the "fair share" participation mitigation measure discussed above.

Fair Share Participation

The "fair share" standard raises two significant considerations - nexus and equal treatment.

Nexus

The "nexus" consideration require that an assessment or exaction be reasonably related to the benefit received or the burden created by the assessed property. The "nexus" test must be met as a prerequisite of any assessment, exaction or project condition.

The Otay Ranch GDP/SRP Program EIR and the SPA One EIR used the "worse case" environmental analysis and do not assume less vehicular traffic due to the potential trolley system or the pedestrian friendly village design. In other words, regardless of the future availability of a LRT system, Otay Ranch is still required to plan and pay for the full compliment of roads. The prospect of a future LRT system to serve Otay Ranch does not relieve Otay Ranch from any obligation to provide roads sufficient to serve the project

with or without the trolley. Traffic studies demonstrate the project meets all traffic thresholds without the LRT.

Equal Treatment

The second consideration of the "fair share" standard creates an obligation of equal treatment. That is, no one property may be singled out to pay an assessment or other exaction while similarly situated properties avoid such a burden. This consideration prohibits the imposition of an exaction upon Otay Ranch which is not equally and fairly shared by other properties along the contemplated South Bay LRT corridor, properties along I-54 and I-805, and throughout the Otay Mesa communities. Absent such a system-wide assessment, any exaction placed on parts or all of Otay Ranch does not meet the "fair share" standard.

A primary beneficiary of a South County LRT would be Otay Mesa (both San Diego City and San Diego County portions) because access to the Mesa is severely limited (only Otay Mesa Road). In order to serve all the job producing land uses designated for the Mesa, both SR-125 and SR-905 must be constructed. Even then, at build-out both these facilities would operate at LOS "F" according to the SPA One build-out traffic analysis. Conversely, the job-housing balance analysis performed as part of the Otay Ranch GDP process, documented that the Otay Ranch land plan brought the South County Subregion into much greater balance. That is, without Otay Ranch the massive industrial land uses on Otay Mesa create a major imbalance with too many industrial uses, and too few residential and commercial uses. The adoption of the Otay Ranch plan mitigates this problem, bringing the subregion into greater balance, and presumably reducing the number and length of commuter trips.

The South Bay Transit Extension Study (February 1991, SANDAG) concludes that the right-of-way costs for the four alternative LRT routes studied averages about 26% of the total cost of the system. Therefore, Otay Ranch's existing obligation to dedicate the transit right-of-way and transit stops through Otay Ranch represents about a 26% contribution to the cost of the system. This contribution is not currently required of any other property along the

proposed transit corridor. Significantly, the County's East Otay Mesa Sectional Plan Amendment (SPA) which was processed somewhat concurrently with the Otay Ranch GDP, does not contain a similar "fair share" MTDB participation requirement.

The MTDB utilizes a "rule of thumb" for transit financing, that 20% of the cost of a system must be born locally since it is assumed that 80% of the system cost will come from State and Federal funding programs.

If, as discussed above, the proportionate value of right-of-way is approximately 26% of the cost of a LRT system, Otay Ranch right-of-way contribution more than satisfies the 20% contribution for a system assumed to be born locally.

3.2.6 Trip Generation and Phasing

Transportation Subcommittee

A Transportation Subcommittee was formed by the Interjurisdictional Task Force (City of Chula Vista and County of San Diego representatives) upon the submittal of the original land use plan for the Otay Ranch Property. To remain consistent with the previous Otay Ranch Transportation Analysis completed in 1992, the Otay Ranch Transportation Subcommittee was reestablished for the analysis of interim transportation system impacts associated with the proposed Otay Ranch SPA One Project. In addition to the Project Applicant, several agencies and consultants were members of the Transportation Subcommittee. the following is a summary of involved parties:

AGENCIES:

City of Chula Vista/Otay Ranch Project Team
County of San Diego
SANDAG
CALTRANS
MTDB
California Transportation Ventures (CTV)

CONSULTANTS:

Cotton/Beland/Associates
BRW, Inc.
Urban Systems Associates

PROJECT APPLICANT:

Otay Project, LLC
McMillin, D.A America Otay Ranch LLC

As was the case for the previous Otay Ranch Transportation Analysis, the subcommittee acted as a reviewing body to ensure all relevant transportation issues were addressed. Specifically, the subcommittee reviewed and provided technical direction to the Otay Ranch Project staff and BRW concerning the following topics, all of which are discussed in the Transportation Analysis:

- Transportation Analysis Scope of Work
- Definition of Alternatives
- On-site and Off-site Land Use Inputs
- On-site and Off-site Network Inputs
- Modeling Procedures
- Review of Model Inputs
- Review of Impact Analysis
- Mitigation Recommendations
- Review of Technical Analyses/Reports

Network Analysis

The analysis of network performance under the Otay Ranch SPA One alternatives was based on the traffic forecasting methodologies and land use forecast information contained in the Series 8 Version 1.0 Transportation Model, developed and operated by SANDAG. SANDAG's Series 8 (Year 2015) regional projections for population and employment

were utilized in the Otay Ranch SPA One traffic forecasting model runs. The model also assumed the partial buildout of approximately 6,000 acres of industrial land in Otay Mesa, located to the south of the project site. SANDAG staff performed all transportation modeling for the Otay Ranch SPA One Transportation Analysis under the direction of BRW.

The proposed project will generate approximately 53,713 average daily trips with 36,812 trips resulting from residential trips and 16,901 resulting from non-residential land uses.

The purpose of conducting a detailed transportation phasing analysis for SPA One is to develop a recommended set of transportation system improvements for each phase of development. For purposes of the traffic analysis, SPA One was subdivided into three phases: Phase I is defined as Years 1995 to 2000; Phase II as Years 2000 to 2005; and the buildout of SPA One with the end of Phase III in Year 2010. The phasing analysis also determined the amount of development that can be accommodated by the transportation system during each phase.

The phasing analysis incrementally loads cumulative and project-only trips to segments and intersections within the Study Area. Only those planned developments that have obtained tentative map approval are included in the phasing analysis.

Phasing Reconciliation

The SPA One project was analyzed in three phases of five year increments each as follows:

Phase I (1995 - 2000)
Phase II (2000 - 2005)
Phase III (2005 - 2010)

This phasing differs from the construction phasing of the SPA One project which is anticipated to proceed in nine phases. Table 8 calculates the trips generated within each village by phase and land use and shows the total trips

generated for each phase of development. This table was used to determine the trigger points indicated in Table 11 for roadway improvements. The circulation system assumed under Phases I - III with the following trigger points based on average daily trips (ADT) taken from the Traffic Analysis of the EIR were used to create the tables:

Phase I	10,746 ADT
Phase II	10,746 + 19,723 = 30,469 ADT
Phase III	30,469 + 27,826 = 58,295 ADT

The total of trips in the Transportation Study (58,295) is greater than the total for SPA One (53,713) as shown on Table 8) due to different land use characteristics used in the study versus the SPA One plan.

Table 8
TRIP CONVERSION BY PHASE AND LAND USE

Phase	SFR @ 7.6 Trips/DU	MF @ 6.4 Trips/DU	Com'l @ 560 Trips/Ac	CPF @ 179.8 Trips/Ac	Parks @46.1 Trips/Ac	Sch @ 145 Trips/Ac	Total Trips
Village 1							
Blue	3,100.8	1,024.0			571.6		4,696
Green	3,541.6	1,075.2			96.8	1,508.0	6,222
Brown	630.8	1,452.8			322.7		2,406
Purple	2,052.0	5,548.8	4,536.0	1,078.8	36.9		13,252
Village 1E/5W							
Grey	4,195.2	2,931.2	1,568.0	863.0	322.7	1,450.0	11,330
Orange	2,074.8	1,286.4		-	308.9		3,670
Village 5							
Pink	1,793.6	-			59.9		1,854
Yellow	4,263.6	-		845.1	115.3		5,224
Red	2,287.6	-			27.7		2,315
Village 1W							
Silver	3,100.8				-		3,101
Gold	3,663.2				235.1	1,551.5	5,450
Total	30,704.0	13,318.4	6,104.0	2,872.6	2,097.6	4,509.5	59,520

3.2.7 Network Performance Assessment Process

The Technical Report prepared by BRW dated September 1995, included the traffic model projections of cumulative traffic volumes by development phase and the identification of the percentage share of daily trips attributable to specific generators allowed for the analysis of network performance based on daily segment levels of service. This performance evaluation was performed for all Study Area arterial and freeway segments. A review of peak hour intersection operations was also performed which required the application of peak hour factors to average daily traffic volumes to develop peak hour turning movements at each of the 49 existing or planned intersections.

3.2.8 Adequacy Analysis

The adequacy of the traffic system is based upon the Transportation Study and the Transportation Phasing Analysis both prepared by BRW, Inc. and both dated September 1995. These studies considered a "worst case" scenario in order to provide adequate mitigation for increased traffic levels for the SPA One project in the event the SR-125 is not completed as scheduled. The approval and subsequent implementation of SR-125 should allow the City to reevaluate the mitigation measures outlined in the analysis. This reevaluation would identify those mitigation measures that could be refined or potentially eliminated due to the provision of this significant north-south facility serving the developing portion of the Southbay area. In any case, maintenance of the City's Growth Management Threshold Standards for level of services is required.

Arterial roadway segments were analyzed to determine whether a project-related impact is "significant" or "less than significant" with regard to the following three levels of criteria.

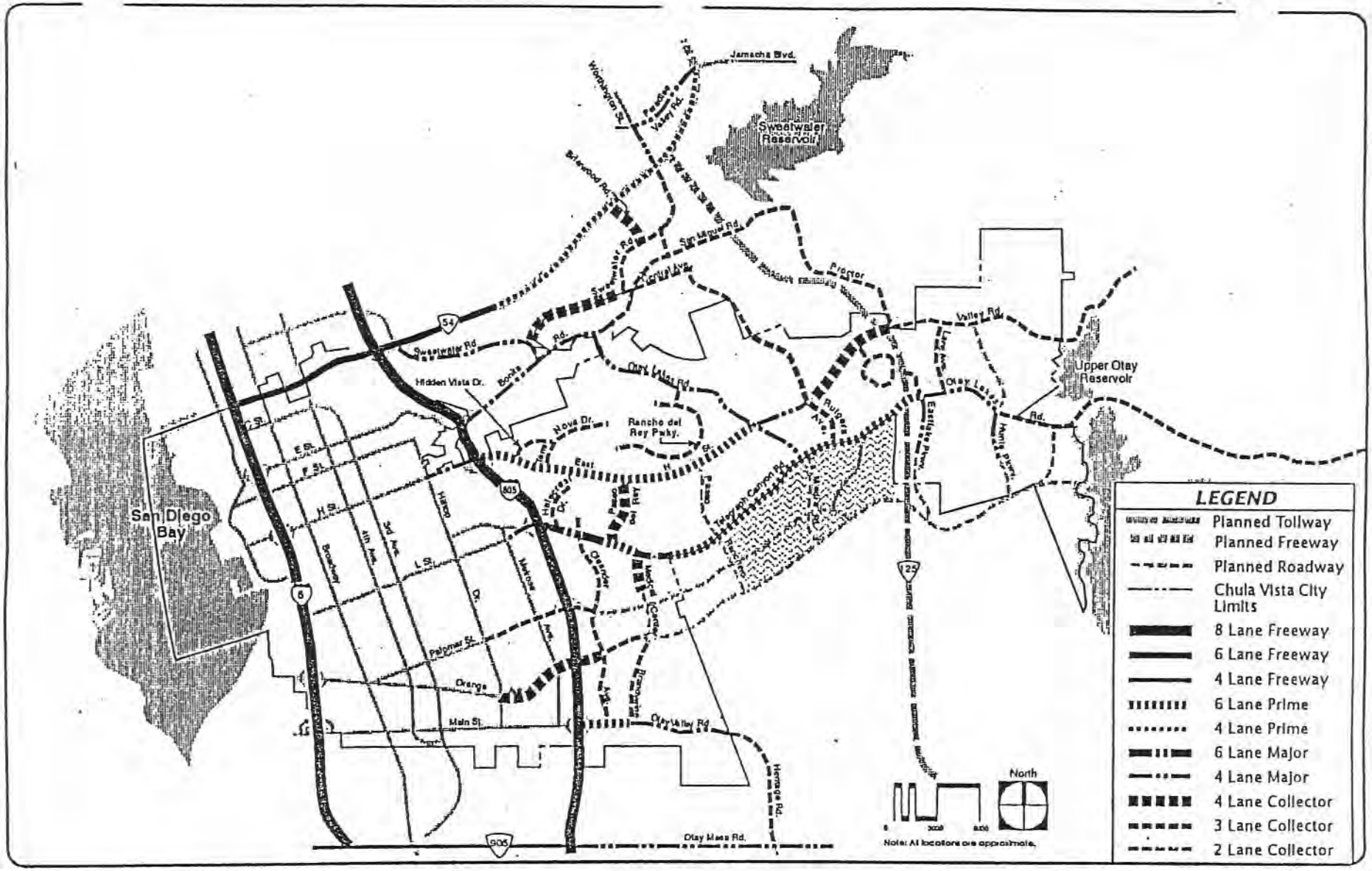
1. Project contribution of 800 or more daily trips to the roadway segment (800 or more daily trips is the CMP threshold for determining a project impact).

2. Five percent (5%) or more project traffic contributed to total ADT projected for Year 2010.

3. Level of Service (LOS) drops from acceptable LOS A through D to LOS E or F; or LOS drops from LOS E to LOS F as compared to Year 2010 No Project conditions.

Criterion 1 is applied to all impacted segments to identify segments that meet the CMP threshold for having a project-related impact. If criterion 1 is not met, then criteria 2 and 3 are not applied. Criterion 2 is then applied to the list of segments with more than 800 daily trips contributed (criterion 1) to cumulative ADT to screen for impacts to be carried forward to criterion 3. If criterion 3 is met in addition to Criteria 1 and 2, the impact is considered a significant project-related impact. If an arterial roadway segment meets criteria 1 and 2, but does not meet criterion 3, is considered a less than significant project-related impact.

The City of Chula Vista General Plan Circulation Element recommends LOS C or better as acceptable for arterial roadway segment ADT volumes. This LOS C is applied to the buildout analysis presented in Chapter 7.0 of the Transportation Study and the Transportation Phasing Analysis by BRW, Inc. and both dated January 1996. These standards are generally used as long-range planning guidelines to determine the functional classification of roadways and maintain quality of life for Southbay residents. It should be recognized that the actual functional capacities of roadway facilities vary by the actual characteristics that exist on each facility under review. Typically, the performance and LOS of a roadway segment is based on the ability of arterial intersections to accommodate peak hour volumes. Special designs of intersections to achieve acceptable levels of service and lower levels of approach

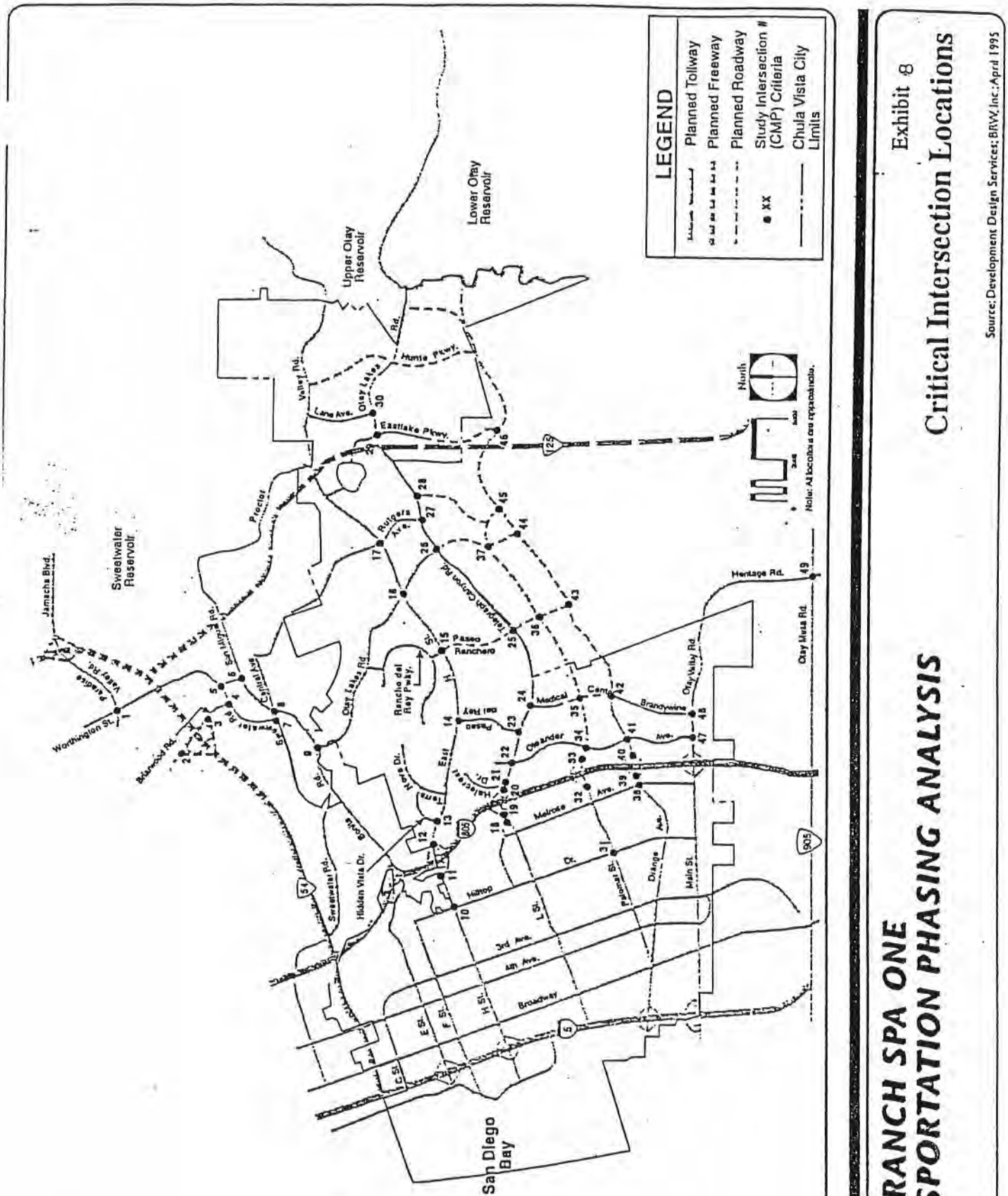


OTAY RANCH SPA ONE
TRANSPORTATION ANALYSIS

Exhibit 7

Existing Functional Classification Map

Source: Development Design Services; HW, Inc.; April 1995


LEGEND
Planned Tollway
Planned Freeway
Planned Roadway
Study Intersection # (CMP) Criteria
Chula Vista City Limits
Exhibit 8
Critical Intersection Locations
OTAY RANCH SPA ONE
TRANSPORTATION PHASING ANALYSIS
Source: Development Design Services; BRW, Inc.; April 1995
Note: All locations are approximate.
North
Upper Otay Reservoir
Lower Otay Reservoir
Sweetwater Reservoir
San Diego Bay
Eastlake Pkwy.
Hunte Pkwy.
Lane Ave.
Otay Lakes Rd.
Rancho del Rey Pkwy.
Paseo Ranchero
Heritage Rd.
Otay Mesa Rd.
Otay Valley Rd.
Brandywine
Melrose Dr.
Orange Ave.
Palomar St.
Main St.
Broadway
Hilltop
Hidden Vista Dr.
Sweetwater Rd.
Bonita Rd.
Bidwell Rd.
Jamacha Blvd.
Worthington St.
Rutgers Ave.
Proctor Valley Rd.
Valley Rd.
Otay Lakes Rd.
Central Ave.
Hollering Canyon Rd.
Medical Center Dr.
Oleander Ave.
Paseo Del Rey
Nacio Dr.
Hollercrest Dr.
Telegraph Canyon Rd.
Sunset Ave.
Proctor Valley Rd.
Jamacha Blvd.
Worthington St.
Bidwell Rd.
Sweetwater Rd.
Bonita Rd.
Hidden Vista Dr.
Broadway
Main St.
Palomar St.
Orange Ave.
Melrose Dr.
Oleander Ave.
Brandywine
Otay Valley Rd.
Otay Mesa Rd.
Heritage Rd.
Paseo Ranchero
Rancho del Rey Pkwy.
Otay Lakes Rd.
Hunte Pkwy.
Eastlake Pkwy.
Lane Ave.
Valley Rd.
Upper Otay Reservoir
Lower Otay Reservoir
Sweetwater Reservoir
San Diego Bay

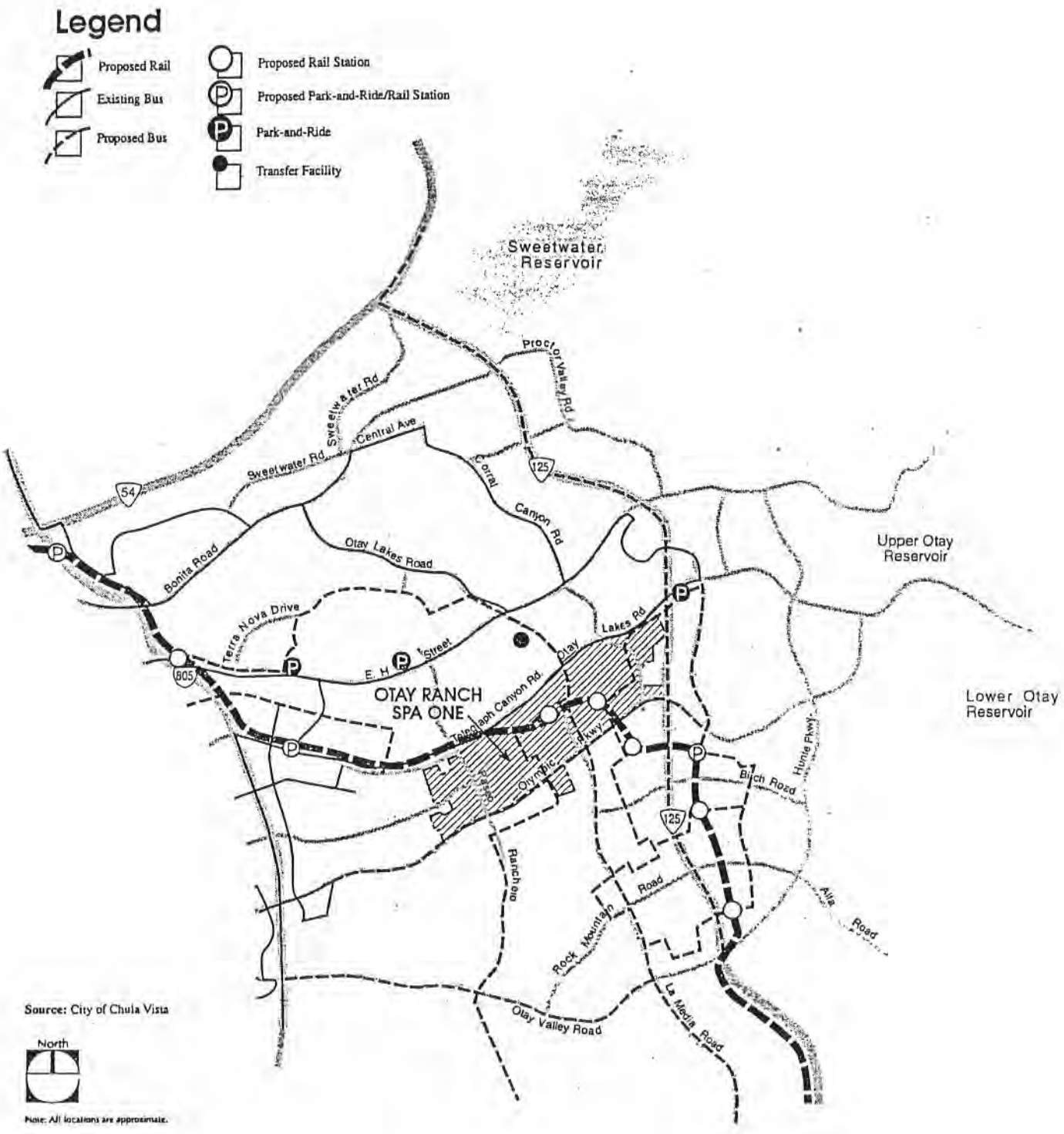


Exhibit . 9
Public Transportation Concept Map

delay could result in higher capacities than those shown in Table 2.2 of the Transportation Study Report for SPA One. Such designs are evaluated in further detail in subsequent chapters of that study report.

Level of Service D is considered acceptable under Existing and Interim Conditions (Year 2010) for roadway segments within the jurisdiction of the City of Chula Vista, assuming adjacent intersection performance is acceptable. Due to the fact that the transportation network in the interim time frame is only partially constructed and the geographic distribution of trip activity is limited, there will be a lack of balance in the assignment of traffic prior to the construction of the full General Plan Circulation Element in the southeastern portion of the general plan area. It is for this reason that the Otay Ranch Subcommittee recommended LOS D as the interim standard for determining significant impacts.

In addition to conformance with the arterial roadway performance standards detailed above, the project will be required to conform to the threshold standards included in the Traffic section of the adopted Growth Management Ordinance. The project's participation in the City's annual review of network performance is mandated as all major circulation element facilities within the City of Chula Vista are included in the annual traffic study prepared by the City Engineering Department and reviewed for conformance by the Growth Management Oversite Commission (GMOC). Finally, utilization of the arterial performance standards presented in the Transportation Study and the required adherence to the Growth Management traffic threshold standards will result in full conformance with the requirements of the mitigation measures described in the Findings of Fact adopted for the Otay Ranch Program EIR related to Transportation, Circulation, and Access.

The County of San Diego has also established standard street classification and level of service standards, and recommends LOS C as acceptable for on-site circulation roadways. The County *Public Facility Element* indicated that new development shall provide off-site improvements designed to contribute to the overall achievement of LOS D. Thus, LOS D is used as the acceptable threshold standard in the

transportation study for roadway segments under County of San Diego jurisdiction.

Peak Hour Intersections were analyzed to determine whether a project-related impact is "significant" or "less than significant" with regard to the following two levels of criteria.

1. Five percent (5%) or more project traffic contributed to projected Year 2010 total entering volumes.

2. Level of Service (LOS) drops from acceptable LOS A through D to LOS E or F; or LOS drops from LOS E to LOS F as compared to Year 2010 No Project conditions.

If an impacted intersection meets Criteria 1 and 2, the impact is considered to be a significant project-related impact. If neither or just one criterion is met, the impact is considered to be less than significant.

Freeway Segment Impacts/Mitigation

Impacts to freeway segments for the portions of I-805, SR-54 and SR-905 in the vicinity of SPA One have been identified and several segments are forecasted to operate at LOS F. Under the regional Congestion Management Plan (CMP) a reduction in freeway segment level of service from LOS E to LOS F is considered a significant impact and requires the development of a Deficiency Plan. This Plan would be developed jointly by SANDAG, Caltrans, APCD, MTDB, the City of Chula Vista and the County of San Diego.

One of the main purposes of the Deficiency Plan is to identify where and when a deficiency is expected to occur before it actually happens. SPA One is one of many development plans for the Southbay which will contribute to the cumulative daily traffic volume growth, especially in the I-805 corridor. The early development of the Deficiency Plan by the multi-agency study team will assist in the identification of project only fair-share contributions for improvements and mitigation.

PHASE I (1995 - 2000)

Development of SPA One contributes 10,746 daily trips during Phase I. Development of the larger Study Area growth components contributes an additional 42,524 daily trips. This results in a cumulative total of 53,270 daily trips loaded onto the circulation network during Phase I.

PHASE II (2000 - 2005)

Development of SPA One contributes 19,723 daily trips during Phase II or 30,469 cumulative trips. Development of the larger Study Area growth components contributes an additional 86,773 daily trips. This results in a cumulative total of 106,496 daily trips loaded onto the circulation network during Phase II.

PHASE III (2005 - 2010)

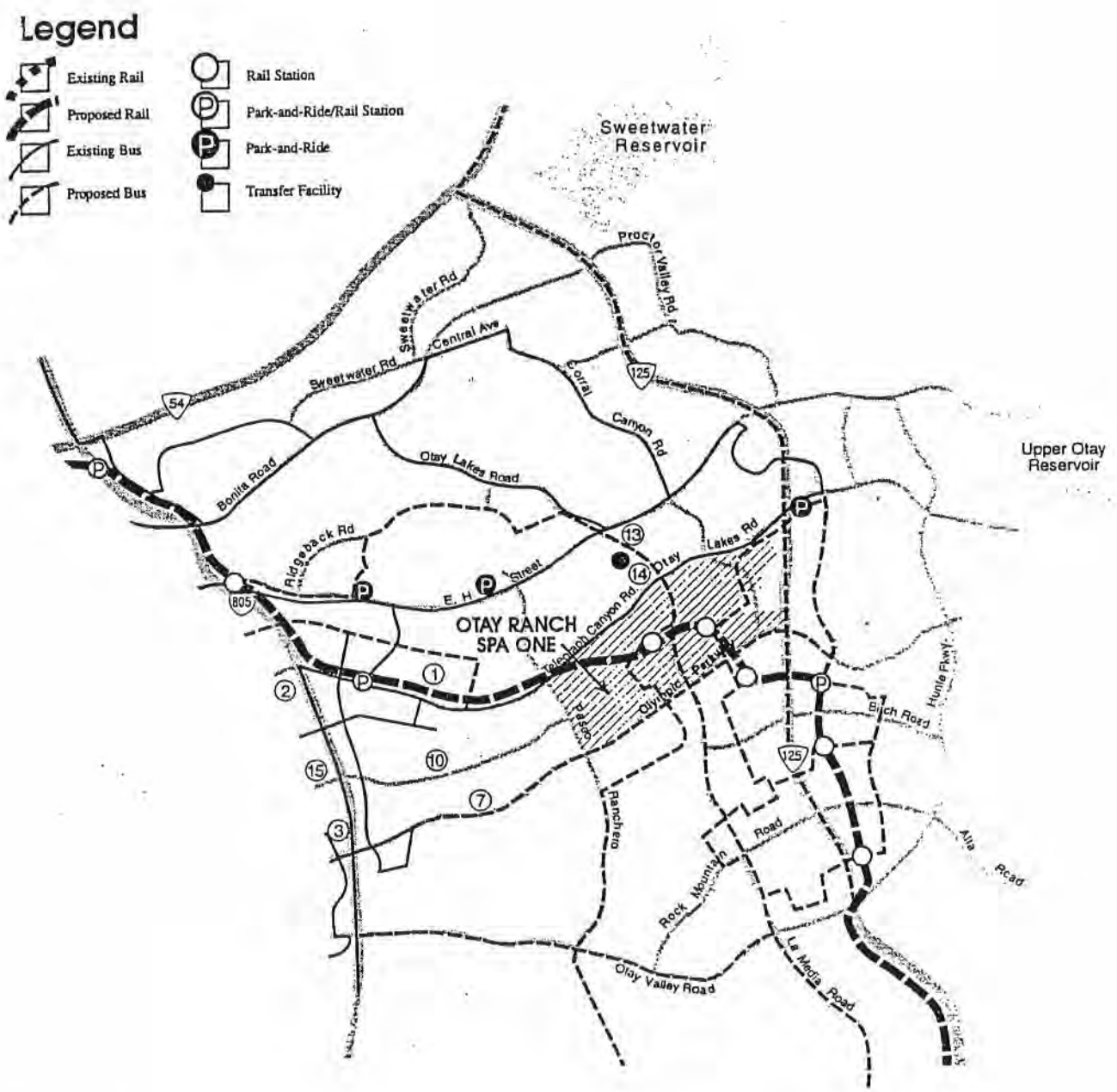
Development of SPA One contributes 27,826 daily trips during Phase III or 58,295 cumulative trips. Development of the larger Study Area growth components contributes an additional 32,471 daily trips. This results in a cumulative total of 69,451 daily trips loaded onto the circulation network during Phase III.

Roadway Segment and Intersection Impacts/Mitigation

Street, intersection and interchange improvements required of SPA One as mitigation are identified in Tables 9 and 10 and geographically shown on Exhibits 11 and 12. Network assumptions are indicated in section 3.2-7 of this document. All of the segments listed in Table 9 are circulation element roadways or facilities except 11, 12 and 15A-C.

TRAFFIC
Exhibit 10
Circulation Plan
Legend
6-Lane Prime Arterial / Scenic Corridor
6-Lane Prime Arterial / Ranch Theme Street
4-Lane Major
Village Core w/ Parking
Village Entry & Core Street with Transit
Village Entry Street
Promenade Street (Core Area)
Promenade Street (Residential Area)
Secondary Village Entry Street
Preferred Trolley Alignment (E. Palomar Street Median)
Transit Stop
SR 125 Community Entry
Ranch Corner Marker
Arterial Community Entry
Village Entry
Proposed SR 125
Property Ownership Boundary
Village Five Tract #96-04
Tract #97-02/98-04
Property Ownership Boundary
Village One Tract #96-04/96-04a
Village One West Tract #98-06
North
0' 400' 800' 1200'
Dimensions & Locations Shown are Approximate.
Base Data Provided by: Hunsaker & Associates P&D Consultants, Inc
Development Design Services & Graphic Access, Inc. Circulation dgn

TRAFFIC



Source: City of Chula Vista

North

Note: All locations are approximate.

Regional Transportation Improvements

Public Facilities Finance Plan

Exhibit 11

TABLE 9[15]
DESCRIPTION OF TRANSPORTATION FACILITIES
FULL IMPROVEMENTS

NO.	DIF[16]	CAT.[17]	STREET	SEGMENT	COST[18]
1	Yes	A	Telegraph Cyn. Rd.	Paseo del Rey to East of Paseo Ladera	(1)
2	Yes	A	Telegraph Cyn. Rd.	I-805 Interchange Phase II	(1)
3	Yes	B	Paseo Ranchero	Telegraph Cyn. Rd to E. Palomar St.	(1)
4	Yes	B	Paseo Ranchero	E. Palomar St. Olympic Pkwy.	1,190,000
5	Yes	B	La Media	Telegraph Cyn. Rd. to E. Palomar St.	(1)
6	Yes	B	La Media	E. Palomar St. to Olympic Pkwy.	1,970,000
7	Yes	B	Olympic Pkwy.	I-805 to Paseo Ranchero	18,566,667[19]
8			Not Used		
9	Yes	A	Olympic Pkwy.	I-805 Interchange Modifications	1,855,000
10	Yes	B	E. Palomar St.	Existing Improvements to Paseo Ranchero	10,500,000
11	No	B	E. Palomar St.	Paseo Ranchero to La Media	(1)
12	No	B	E. Palomar St.	La Media to Olympic Parkway.	2,500,000
13	Yes	A	Intersection	E. "H" St./Otay Lakes Rd.	(1)
14	No	B	Intersection	Telegraph Cyn. Rd/Otay Lakes Rd.	440,000
15	Yes	A	Palomar St.	I-805 1/2 diamond interchange	2,700,000
15A	No	B	Pedestrian Bridge	Between Villages 1 and 5 over La Media	768,000
15B	No	B	1/2 Pedestrian Bridge	Between Villages 1 and 2 over Olympic Pkwy.	632,000
15C	No	B	1/2 Pedestrian Bridge	Between Villages 5 and 6 Olympic Pkwy.	666,000
				Subtotal	**$41,787,667**
21	Yes	B	Olympic Pkwy.	Paseo Ranchero to La Media	14,453,434[19]
22	Yes	B	Olympic Pkwy.	La Media to E. Palomar St.	7,350,751[19]
23	Yes	B	Olympic Pkwy.	E. Palomar St. to SR-125	5,320,811[19]
				TOTAL	**68,912,663**

Note: (1) This facility is already bonded for or under construction.

Exhibit 12 Internal Transportation Improvements

Table 10
DESCRIPTION OF TRANSPORTATION FACILITIES

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15 The improvements listed in Table 9 are those necessary for the construction of the full cross-section of the facility. The improvements listed in Table 10 are partial improvements that would be required prior to buildout of SPA One for each phase. Cost estimates have not been prepared for the partial improvements listed in Table 10 because of their overlap with other improvement projects and the uncertainty as to the ultimate need for the partial improvement.

16 Eligibility for DIF funding or credit against DIF fees.

17 Category of facility where "A" signifies offsite and "B" signifies on-site.

18 Includes cost of signalization at impacted intersections.

19 Cost estimate prepared by Kimley-Horn.

PARTIAL IMPROVEMENTS

Facility No.	Street	Segment	Description
16	Paseo Ranchero	Telegraph Canyon Rd. to East Palomar St.	1/2 street improvements, full grading, center median
17	Paseo Ranchero	East Palomar St. to Olympic Pkwy.	four lanes plus center median, full grading
18	La Media	Telegraph Canyon Rd. to East Palomar St.	1/2 street improvements, full grading, center median
19	La Media	East Palomar St. to Olympic Pkwy.	four lanes plus center median, full grading
20	Olympic Pkwy.	Oleander Ave. to Paseo Ranchero	four lanes plus center median, full grading
21	Olympic Pkwy.	Paseo Ranchero to La Media	full improvements on north half, center median and two lanes south of median, full grading
22	Olympic Pkwy.	La Media to Palomar St.	full improvements on north half, center median and two lanes south of median, full grading
23	Olympic Pkwy.	Palomar St. to eastern subdivision boundary	full improvements on north half, center median and two lanes south of median, full grading
24	East Palomar St.	Paseo Ranchero to La Media	1/2 street improvements, full grading, center median
25	East Palomar St.	La Media to Olympic Pkwy.	1/2 street improvements, full grading, center median

The improvements identified in Tables 9 and 10 for SPA One are further enumerated by phase of development as presented in Table 11. The numbers appearing in the "Facility Needed" column correspond to the facilities listed in Tables 9 and 10. If no timing is indicated, the improvements may be required to be completed at anytime during the phase indicated.

As directed by the Director of Planning and the City Engineer, the applicant shall construct a pedestrian bridge connecting Village One to Village Five at the vicinity of Palomar Street crossing over La Media Road. The timing of the construction of said bridge shall be determined by the City at the time of approval of the first tentative map.

In addition, the SPA One Plan provides for the construction of two pedestrian bridges connecting Village One to Village

Two and Village Five to Village Six. The applicant shall agree to fund half of the cost of constructing the two pedestrian bridges at the time of approval of the first final map. A preliminary cost analysis for prototype bridge structures has been prepared by Simon Wong and is the basis for establishing a Pedestrian Bridge Development Impact fee for SPA One.

The improvements listed by phase in Table 11 shall be constructed or an agreement entered into to construct said improvements prior to approval of the first final map within the designated phase unless otherwise indicated.

Any building permit issued will be counted toward the number of permits allowed for either a single family or multiple family unit. Commercial development shall be considered in the number of lots finaled by converting the estimated average daily trips (ADT) to an equivalent dwelling unit (EDU) where 1 EDU equals 7.6 ADTs.

Subsection C of Municipal Code Section 19.09.100 (Growth Management Ordinance) requires that if the City Manager determines that facilities or improvements within a PFFP are inadequate to accommodate any further development within that area the City Manager shall immediately report the deficiency to the City Council. If the City Council determines that such events or changed circumstances adversely affect the health, safety or welfare of City, the City may require amendment, modification, suspension, or termination of an approved PFFP.

Table 11
Transportation Improvements

		Cumulative	Phase (Footnote or Phase specific EDU trigger)										
Internal Transportation Improvements		EDUs	Blue	Grey	Pink	Grn	Org	Yel	Brn	Red	Purp	Silver	Gold
4	Paseo Ranchero - E. Palomar to Olympic Pkwy.*	1,213	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	300	(2)	(2)
6	La Media - E. Palomar to Olympic Pkwy.*	2,911	(2)	(2)	(2)	(2)	(3)	(2)	(2)	(2)	(2)	(2)	(2)
12B	E. Palomar - Santa Rosa to Olympic Pkwy.	2,911	(2)	(2)	(2)	(2)	(3)	300	(2)	(3)	(2)	(2)	(2)
15A	La Media Pedestrian Bridge	2,911	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
15B	1/2 Olympic Pkwy. Bridge (Village 1 to Village 2)	4,629	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
15C	1/2 Olympic Pkwy. Bridge (Village 5 to Village 6)	4,629	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
21	Olympic Pkwy. - Paseo Ranchero to La Media	2,911	(2)	(2)	(2)	(2)	300	(2)	300	(3)	(3)	(2)	(2)
22	Olympic Pkwy. - La Media to E. Palomar	3,136	(2)	(2)	(2)	(2)	(3)	(2)	(2)	(3)	(2)	(2)	(2)
23	Olympic Pkwy. - E. Palomar to eastern Otay Ranch boundary (5)	5,429	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(3)	(2)	(2)	(2)
Regional Transportation Improvements (1)													
7	Olympic Pkwy. - I-805 to Paseo Ranchero*	1,213	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
10	E. Palomar - existing improvements to Paseo Ranchero	2,911	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(3)	(3)

Footnote Legend:

(1) Interim improvements for any facility can be constructed at the discretion of the City Engineer.

(2) Agree to construct and to secure the facility prior to the Final "B" Map that triggers the cumulative EDUs as defined in this Exhibit.

(3) Agree to construct and to secure the facility prior to first final map in Phase.

(4) To be financed through a local DIF. To be secured by cash on a parcel by parcel basis prior to each corresponding Final "B" Map, until DIF is established.

Notes:

Improvements are triggered by the sooner of phase specific EDUs or cumulative EDUs.

Facilities to be guaranteed prior to the first final map triggering the improvement.

Single Family Residential = 1 EDU per DU

Multi-Family Residential = 0.84 EDU per DU

Commercial = 73.68 EDUs per Acre

CPF = 23.66 EDUs per Acre

3.2.9 Financing Traffic Improvements

Transportation Development Impact Fees (DIF)

On December 7, 1993, the Chula Vista City Council adopted Ordinance 2580 amending Ordinance 2251 which previously commenced collection of development impact fees (DIF) to be used to construct circulation element transportation facilities to accommodate increased traffic generated by new development within the City's eastern territories. The fee is $3,998 per equivalent dwelling unit (EDU) effective January 1, 1995.

Also effective January 1, 1995 is an interim pre-SR-125 development impact fee in the amount of $820 per equivalent dwelling unit to implement the pre-SR-125 strategy as defined in the study entitled "Interim State Route 125 Facility Feasibility Study" dated May 1993.

The Otay Ranch SPA One project is within the boundaries of the Transportation DIF program and, as such, the project will be subject to the payment of the fees at the rates in effect at the time building permits are issued. However, the improvements identified in Tables 9 and 10 will be required to be constructed according to the approved phasing plan. In this case, the DIF ordinance allows for the issuance of credit in lieu of fees when an eligible facility is constructed by the project. If the total eligible construction cost amounts to more than the total required DIF fees as is indicated below, the owner/developer will be given credits toward future building permits outside of SPA One. This will be more fully analyzed in a feasibility study to be prepared prior to formation of the first assessment district for street improvements in SPA One.

The following improvements (as identified in Table 9) are included in the City's Transportation Development Impact Fee program:

NO.	STREET	COST
1	Telegraph Canyon Rd.	(1)
2	Telegraph Canyon Rd.	(1)
3	Paseo Ranchero	(1)
4	Paseo Ranchero	1,190,000
5	La Media	(1)
6	La Media	1,970,000
7	Olympic Pkwy.	18,566,667
9	Olympic Pkwy.	1,855,000
10	East Palomar St.	10,500,000
13	Intersection	(1)
15	Palomar St.	2,700,000
21	Olympic Pkwy.	14,453,434
22	Olympic Pkwy.	7,350,751
23	Olympic Pkwy.	5,530,811
Total		**$63,906,663**
Less SPA One Transportation DIF Fees		27,923,231
Balance from Funding Alternatives Discussed Below		**$35,983,432**

(1) This facility is already bonded for or under construction.

The funding of $63,906,663 identified above will be accomplished in one or more possible funding alternatives as follows:

- Payment of Transportation DIF Fees.
- Construction of improvements by developer with credit toward DIF fees on building permits.
- Financing through assessment districts or Community Facility Districts over area of benefit larger than SPA One.
- Expenditure of available DIF account funds.
- Construction of improvements by other developers (i.e. Sunbow, etc.)
- Federal Funds

The following equivalent dwelling units (EDUs) apply to the calculation of impact fees in accordance with Ordinance No's. 2580 for Transportation and 2579 for Interim Pre-SR125 facilities.

The Transportation Development Impact Fee beginning January 1, 1995 is $3,998 per EDU. Each new single family detached dwelling shall be considered one EDU for the purposes of this fee. A single family attached dwelling shall be 0.8 EDUs. A unit within a multi-family dwelling shall be considered 0.6 EDUs. Commercial/Office shall be charged

at the rate of 25.0 EDUs per gross acre of land while Industrial is 20.0 EDUs per acre. Religious Institutional land uses are 4.0 EDUs per acre.

The Interim Pre-SR125 Development Impact Fee beginning January 1, 1995 is $820 per EDU. The same EDU rates apply to the Interim Pre-SR125 Development Impact Fee as for the Transportation Development Impact Fee.

Table 12
EDUS BY PHASE FOR TRANSPORTATION AND INTERIM PRE-125 FACILITIES

	EDU/Land Use					
Development Phase	SFD	SFA	MF	Com'l	CPF	EDU/Phase
Village 1						
Blue	408.0	-	96.0			504.0
Gren	466.0	-	100.8			566.8
Brown	83.0	-	136.2			219.2
Purple	270.0	-	520.2	202.5	24.0	1,016.7
Village 1E/5W						-
Grey	345.0	165.6	274.8	70.0	19.2	874.6
Orange	199.0	59.2	120.6			378.8
Village Five						-
Pink	236.0	-	-			236.0
Yellow	478.0	66.4	-		18.8	563.2
Red	119.0	145.6	-			264.6
Village 1W						-
Silver	408.0	-	-			408.0
Gold	482.0	-	-			482.0
TOTAL SPA One	**3,494.0**	**436.8**	**1,248.6**	**272.5**	**62.0**	**5,513.9**

Table 13
TRANSPORTATION DIF FEES

Development Phase	EDUs	Transportation Fee @$3,998/EDU
Village 1		
Blue	504.0	$ 2,014,992.00
Green	566.8	2,266,066.40
Brown	219.2	876,361.60
Purple	1,016.7	4,064,766.60
Village 1E/5W		
Grey	874.6	3,496,650.80
Orange	378.8	1,514,442.40
Village 5		
Pink	236.0	943,528.00
Yellow	563.2	2,251,673.60
Red	264.6	1,057,870.80
Village 1W		
Silver	408.0	1,631,184.00
Gold	482.0	1,927,036.00
Total	**5,513.9**	**$ 22,044,572**

Table 14
INTERIM PRE-SR125 DIF FEES

Development Phase	EDUs	Interim Pre-SR-125 Fee @$803.60/EDU	DIF Admin Allotment @$16.40/EDU	Interim Pre-SR-125 Fee/Phase
Village 1				
Blue	504.0	$ 405,014	$ 8,266	$ 413,280
Green	566.8	455,480	9,296	464,776
Brown	219.2	176,149	3,595	179,744
Purple	1,016.7	817,020	16,674	833,694
Village 1E/5W				
Grey	874.6	702,829	14,343	717,172
Orange	378.8	304,404	6,212	310,616
Village 5				
Pink	236.0	189,650	3,870	193,520
Yellow	563.2	452,588	9,236	461,824
Red	264.6	212,633	4,339	216,972
Village 1W		-	-	-
Silver	408.0	327,869	6,691	334,560
Gold	482.0	387,335	7,905	395,240
Total	5,513.9	$ 4,430,970	$ 90,428	$ 4,521,398

Traffic Signal Fee

Future development within SPA One will be required to pay Traffic Signal Fees in accordance with Chula Vista Council Policy No. 475-01. The fee is calculated at $13.00 per vehicle trip generated per day for various land use categories. The total traffic signal fees due from SPA One is $773,764.55.

Non-DIF Streets and Signals

The Otay Ranch SPA One project contains residential streets and signals that, by city policy, are not eligible for DIF credit. These streets and signals will be funded by the development.

Table 15
TRAFFIC SIGNAL FEES BY PHASE

Development Phase	SFD	SFA	MF	Com'l	CPF	Parks	Sch	Trips/Phase	Traffic Signal Fee/Phase
Village 1									
Blue	408	-	160			12.4		4,696	$ 61,053.72
Green	466	-	168			2.1	10.6	6,222	80,880.93
Brown	83	-	227			7.0		2,406	31,281.90
Purple	270	-	867	8.1	6.0	0.8		13,252	172,282.24
Village 1E/5W									-
Grey	345	207	458	2.8	4.8	7.0	10.0	11,330	147,291.82
Orange	199	74	201			6.7		3,670	47,710.91
Village 5									-
Pink	236					1.3		1,854	24,095.89
Yellow	478	83	-		4.7	2.5		5,224	67,910.83
Red	119	182	-			0.6		2,315	30,098.38
Village 1W									-
Silver	408							3,101	40,310.40
Gold	482					5.1	10.7	5,450	70,847.53
Total	3,494	546	2,081	10.9	15.5	45.5	31.3	59,520	$ 773,764.55

3.2.10 Threshold Compliance

Threshold compliance will continue to be monitored through the annual intersection monitoring program and the Eastern Chula Vista Transportation Phasing Plan updates.

Based upon the traffic analysis prepared for the Otay Ranch SPA One project, threshold compliance is projected to be maintained with implementation of the improvements identified to have a significant impact in the Otay Ranch SPA One *Transportation Study* and the Otay Ranch SPA One *Transportation Phasing Analysis* both dated September 1995 and with the payment of transportation impact fees or the construction of street improvements identified herein.

The Growth Management Threshold Standards for level of service (LOS) apply to City of Chula Vista Circulation Element roadways. The GDP provides that other roadways

within the SPA are not required to comply with GMO standards.

This PFFP update reflects the revised SPA One Phasing Plan (1998). With implementation of the revised phasing plan, SPA One remains in compliance with the threshold standards

SPA One shall be conditioned to pay Transportation DIF Fees and Interim Pre-SR125 DIF Fees at the rate in effect at the time building permits are issued.

TRAFFIC

Internal Transportation Improvements

Public Facilities Finance Plan

Otay Ranch - SPA One

Exhibit 12

3.3 Police

3.3.1 Threshold Standard

1. Emergency response: properly equipped and staffed police units shall respond to 84 percent of "Priority One" emergency calls within 7 minutes and maintain an average response time to all "Priority One" emergency calls of 4.5 minutes or less measured annually.

2. Respond to 62 percent of "Priority Two Urgent" calls within 7 minutes and maintain an average response time to all "Priority Two" calls of 7 minutes or less measured annually.

3.3.2 Service Analysis

The City of Chula Vista Police Department provides police services. The purpose of the Threshold Standard is to maintain or improve the current level of police services throughout the City by ensuring that adequate levels of staff, equipment and training are provided.

Law enforcement facilities and services are addressed in the *Facility Implementation Plan* dated October 28, 1993, (p.198) as part of the GDP and in the *Otay Ranch SPA One* (p. I-141). Police Facilities are also addressed in *a Master Plan for the Chula Vista Civic Center Solving City Space Needs Through Year 2010*, dated May 8, 1989.

3.3.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Services reviewed consistent with proposed phasing of the project.

2. Demonstrate conformance with *A Master Plan for the Chula Vista Civic Center*, May 8, 1989 and the *Facility Implementation Plan*.

3.3.4 Existing Conditions

The Chula Vista Police Department (CVPD) currently serves the SPA One project area.

Police Facility Inventory

Existing Facility	
Police Headquarters	276 4th Avenue

Future Facilities	
Remodel Existing Facility	276 4th Avenue

3.3.5 Adequacy Analysis

Based upon the Growth Management Oversight Commission 1994 Report submitted May 1995, both measures for Priority II Calls for Service (CFS) were met, while only one of the two measures for Priority I CFS was met. The GMOC submitted recommendations for continued improvement of the response to priority Calls for Service. Among the recommendations is an effort to update the City's master plan for police facilities.

The Otay Ranch SPA One development will increase the demand for police service in the project area. According to the demand methodology identified in the GDP, the projected population increase generated by SPA One (17,628) will require an additional 24 officers (@ 1.38 officers per 1,000) plus 25 support staff (@ 1.74 support staff for every 1.67 officers) at buildout to maintain current levels of police service. Approximately 4,908 sq. ft. of police facilities would be required to house the additional 24 officers.

The Police Department indicated to the GMOC that based upon the proposed development phasing schedule it did not have any specific concerns with its ability to continue to meet the standard but that additional officers/beats will have to be added in the future as the eastern area including Otay Ranch continues to develop.

3.3.6 Financing Police Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista[17]. 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 fees were updated by adoption of Ordinance No. 2554 on April 27, 1993. The current fee established by Ordinance No. 2554 is $2,150 per equivalent dwelling unit.

The portion of the fee attributable to police services in the existing fee program is $235/EDU.

Upon annexation, the Otay Ranch SPA One project will be within the boundaries of the public facilities DIF program and, therefore, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current fee rate, the Otay Ranch SPA One obligation at buildout is $1,517,919.

Table 16
PUBLIC FACILITIES FEES FOR POLICE

Development Phase	EDUs	Police Fee @$235/EDU
Village 1		
Blue	568.0	$ 133,480
Green	634.0	148,990
Brown	310.0	72,850

17 For Police and other facilities discussed throughout this Public Facilities Finance Plan, reference is hereby made to the report titled, *Development Impact Fees for Public Facilities* dated April 20, 1993.

Purple	1,195.5	280,943
Village 1E/5W		
Grey	1,038.4	244,024
Orange	474.0	111,390
Village 5		
Pink	236.0	55,460
Yellow	575.1	135,149
Red	301.0	70,735
Village1W		-
Silver	408.0	95,880
Gold	482.0	113,270
Total	**6,222.0**	**$ 1,517,919**

3.3.7 Threshold Compliance

The City will continue to monitor police responses to calls for service in both the Emergency (priority one) and Urgent (priority two) categories and report the results to the GMOC on an annual basis.

SPA One shall be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.

The developer shall fund studies necessary to update the Development Impact Fee for Public Facilities prior to approval of the first final map to include all areas annexed into the City and the cost of public facilities and services required to serve that area. The applicant shall receive 100% credit toward project DIF funds for funding the DIF update study.

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3.4 Fire and Emergency Medical Services

3.4.1 Threshold Standard

Emergency response: Properly equipped and staffed fire and medical units shall respond to calls throughout the City within seven (7) minutes in 85 percent (current service to be verified) of the cases (measured annually).

3.4.2 Service Analysis

Fire and Emergency Medical Services are provided by the City of Chula Vista Fire Department. The City also has county wide mutual aid agreements with surrounding agencies should the need arise for their assistance. The purpose of the Threshold Standard and the monitoring of response times is to maintain and improve the current level of fire protection and emergency medical services (EMS) in the City. Fire/EMS facilities are provided for in the *Fire Station Master Plan*, dated March 23, 1989. The Fire Station Master Plan indicates that response time is primarily determined by the number and location of fire stations. The Fire Station Master Plan evaluates the planning area's fire coverage needs, and recommends an eight station network at buildout to maintain compliance with the threshold standard.

City Staff recently completed the *1998 Fire Station Master Plan Update* that is reported to adequately address fire needs. The update may be considered for adoption by the City Council in the near future.

Fire facilities and services are addressed in the *Facility Implementation Plan* dated October 28, 1993, as part of the GDP and in the *Otay Ranch SPA One.*

3.4.3 Project Processing Requirements

Developments shall be in accordance with the project guidelines outlined in the Fire Station Master Plan as may be amended from time to time.

In accordance with the Fire Station Master Plan, the City, at its sole discretion, shall determine when a new fire station is required in order to achieve threshold service levels, meet specific project guidelines or maintain general operational needs of the Fire Department.

The requirement to pay for fire station construction and related equipment shall be the sole responsibility of the developer or developers and the City may require said developer or developers to provide a guarantee mechanism to assure the availability of such funding.

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Specific siting of the facility takes place that conforms with the *Fire Station Master Plan*, March 23, 1989.
2. Site reserved.
3. Equipment needs identified.
4. Methods of financing discussed.
5. Timing of construction is consistent with threshold service levels, specific project guidelines and/or general operational needs of the Fire Department.
6. Demonstrate the ability to provide adequate facilities to access required fire stations in conjunction with the construction of sewer and water facilities.

3.4.4 Existing Conditions

There are currently six city stations and one fire protection district station serving the City of Chula Vista. The existing and future stations are listed below:

Table 17
FIRE STATION INVENTORY

Chula Vista Existing Facilities	Location	Cost Estimate
Station #1	447 "F" Street	
Station #2	80 East "J" Street	
Station #3	266 East Oneida	
Station #4	861 Otay Lakes Road	
Station #5	391 Oxford Street	
Interim Station #6	975 Lane Avenue	
Fire Training Tower	850 Paseo Ranchero	
Fire Prevention Bureau	447 "F" Street	
Fire Administration	447 "F" Street	
Fire Protection District Facility		
Bonita/Sunnyside Fire Protection Dist.	4900 Bonita Road	
Planned Facilities		
Station #3 (to be relocated)	Sunbow	$674,000[22]
Station #4 (to be relocated)	850 Paseo Ranchero	$650,000[22]
Station #5 (to be reconstructed)	391 Oxford Street	$650,000[22]
Station #6 (permanent facility)	Salt Creek	$674,000[22]
Otay Ranch #7	Village 2	None Established
EastLake Trails #8	Village 9	None Established
Otay Ranch #9	Village 13	None Established
Other Capital Improvements		
Radio Communications Tower	Otay Mountain	$38,000
Public Safety Communications (CAD/RMS)	Dispatch Center	$1,788,000
Public Safety Communications (800MHz)	Citywide	None Established
Brush Engine	Eastern Territories	$225,000

3.4.5 Adequacy Analysis

The City of Chula Fire Department (CVFD) currently serves areas within the City's municipal boundaries, including the Otay Ranch SPA One Project Area. The closest CVFD stations to the project are:

- Fire Station 4, located on Otay Lakes Road, South of East H street, and

- Fire Station 6, located in the EastLake Business Park.

The City of Chula Vista's Fire Station Master Plan, dated February, 1989 and revised July 10, 1989, provides for an nine station network at build-out.

22 Cost estimate based upon 1995 planning for relocation of Fire Station 4, (base estimate of $598,600 with 3% per year projected cost increases).

The Otay Ranch GDP plans for the location of fire stations in Otay Ranch Villages Two and Nine of the Otay Valley Parcel and within Village Thirteen of the Proctor Valley Parcel. No cost estimates are available at this time. All service responsibility would be transferred to the Chula Vista Fire Department upon annexation of the SPA One project area to the City of Chula Vista.

3.4.6 Financing Fire Service Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. 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 fees were updated by adoption of Ordinance No. 2554 on April 27, 1993.

The portion of the fee attributable to fire and emergency medical services is $141/EDU .

The Otay Ranch SPA One project is within the boundaries of the public facilities DIF program and, therefore, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current fee rate, the Otay Ranch SPA One obligation at buildout is $910,776.

Table 18
PUBLIC FACILITIES FEES FOR FIRE AND EMS

Development Phase	EDUs	Fire Fee @$141/EDU
Village 1		
Blue	568.0	$ 80,088
Green	634.0	89,394
Brown	310.0	43,710
Purple	1,195.5	168,566
Village 1E/5W		
Grey	1,038.4	146,414
Orange	474.0	66,834
Village 5		
Pink	236.0	33,276
Yellow	575.1	81,089
Red	301.0	42,441
Village 1W		
Silver	408.0	57,528
Golf	482.0	67,962
Total	**6,222.0**	**$ 910,776**

3.4.7 Threshold Compliance

The City will continue to monitor Fire Department responses to emergency fire and medical calls and report the results to the GMOC on an annual basis.

No fire facility is included in SPA One. However, it is anticipated that SPA One fire and emergency medical coverage will be provided through the use of existing assets from the Chula Vista Fire Department with no degradation in overall response statistics. In the event that actual conditions vary from predicted conditions to the extent that response times are degraded, the construction of additional fire facilities or the accelerated construction of other planned facilities to serve SPA One properties may be necessary pursuant to Section 3.4.3 of this document. In this case, no development will be allowed to continue until threshold standards are assured to the satisfaction of the City.

SPA One shall be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.

The developer shall fund studies necessary to update the Development Impact Fee for Public Facilities prior to approval of the first final map to include all areas annexed into the City and the cost of public facilities and services required to serve that area. The applicant shall receive 100% credit toward project DIF funds for funding the DIF update study.

3.5 Schools

3.5.1 Threshold Standard

The City annually shall provide the two local school districts with a 12 to 18 month development forecast and request an evaluation of their ability to accommodate the forecast and continuing growth. The Districts' replies should address the following:

1. Amount of current capacity now used or committed.

2. Ability to absorb forecasted growth in affected facilities.

3. Evaluation of funding and site availability for projected new facilities.

4. Other relevant information the District(s) desire(s) to communicate to the City and GMOC.

3.5.2 Service Analysis

School facilities and services in Chula Vista are provided by two school districts. The Chula Vista Elementary School District administers education for kindergarten through sixth grades. The Sweetwater Union High School District administers education for the Junior/Middle and Senior High Schools of a large district that includes the City of Chula Vista, along with four other jurisdictions. The purpose of the threshold standard is to ensure that the districts have the necessary school sites and funds to meet the needs of students in newly developing areas in a timely manner, and to prevent the negative impacts of overcrowding on the existing schools. Through the provision of development forecasts, school district personnel can plan and implement school facility construction and program allocation in line with development.

Chula Vista Elementary School District's Standards and Criteria are used in the place of a defined master plan.

Sweetwater Union High School District utilizes the "Sweetwater Union High School District Long Range Comprehensive Master Plan," dated November 1989 and updated in May, 1993.

School facilities and services are also addressed in the Facility Implementation Plan dated October 28, 1993, as part of the GDP and in the Otay Ranch SPA One.

3.5.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Identify student generation by phase of development.
2. Specific siting of proposed school facilities will take place in conformance with the Sweetwater Union High School District Long Range Comprehensive Plan, November, 1989 and Chula Vista Elementary School District's Standards and Criteria.
3. Reserve school sites, if necessary, or coordinate with the district for additional school classrooms.
4. Provide cost estimates for facilities.
5. Identify facilities consistent with proposed phasing.
6. Demonstrate the ability to provide adequate facilities to access public schools in conjunction with the construction of water and sewer facilities.
7. Secure financing.

3.5.4 Existing Conditions

<u>School Facilities Inventory, Chula Vista Elementary School District</u>

The Chula Vista Elementary School District's inventory consists of 35 existing elementary schools. Table 19 lists existing schools together with the capacity and enrollment of

each as reported in June 1998. School capacity (permanent and relocatable buildings) was 19,730 as of June 1998. Enrollment in June1998 totaled 20,925. Twenty seven of 35 schools are over capacity.

New elementary schools will be needed to meet the educational needs of students generated from the projected development and resultant population increase. The District reported a 5% increase in student population for the 1997-98 school year. This growth was reportedly due to:

1. Demographic changes in older neighborhoods in western Chula Vista;
2. New growth in the Eastern Territories; and
3. Higher student generation rates (students per household) in some new development in the Eastern Territories.

Table 19
CHULA VISTA ELEMENTARY SCHOOL DISTRICT
6/98 ENROLLMENTS VS. PERMANENT CAPACITY

School	6/5/98 Enrollment	Permanent Capacity	Over/Under Capacity
Allen	456	430	26
Casillas	-	670	(670)
Castle Park	582	600	(18)
Chula Vista Hills	658	570	88
Clear View	586	540	46
Cook	535	500	35
Discovery	834	710	124
EastLake	814	750	64
Feaster-Edison	998	950	48
Finney	522	460	62
Halecrest	577	600	(23)
Harborside	752	710	42
Hilltop Drive	574	570	4
Juarez-Lincoln	564	530	34
Kellogg	423	430	(7)
Lauderbach	938	610	328
Loma Verde	706	640	66
Los Altos	498	460	38
Montgomery	425	430	(5)
Mueller	757	610	147
Olympic View	752	740	12
Otay	675	500	175
Palomar	452	500	(48)
Parkview	508	360	148
Rice	731	740	(9)
Rogers/R. Center	555	530	25
Rohr	541	530	11
Rosebank	705	670	35
Silver Wing	629	600	29
Sunnyside	598	570	28
Tiffany	730	610	120
Valle Lindo	525	500	25
Valley Vista	669	570	99
Vista Square	656	540	116
TOTAL	**20,925**	**19,730**	**1,195**

School Facilities Inventory, Sweetwater Union High School District

The Sweetwater Union High School District currently administers ten (10) junior high/middle schools and ten (10) senior high schools plus one continuation high school within the District. Of the nine junior highs, six have been converted to middle schools serving grades seven and eight. As the population grows, the District is projecting a need for 3 middle schools and 3 high schools throughout the District's boundaries.

Table 20
SWEETWATER UNION HIGH SCHOOL DISTRICT ENROLLMENT VS. PERMANENT CAPACITY

School	Total Permanent & Temp Capacity "Adjusted"[23]	Oct-98 CBEDS Enrollment Projections "Unofficial"[24]	Over/Under Capacity
High Schools			
Bonita Vista	2,070	2,319	-249
Castle Park	2,010	1,984	26
Chula Vista	2,220	2,198	22
EastLake	2,610	1,814	796
Hilltop	1,830	1,915	-85
Mar Vista	1,770	1,828	-58
Montgomery	2,190	2,179	11
Southwest	2,280	2,190	90
Sweetwater	2,070	1,965	105
Palomar	570	558	12
Subtotal	***19,620***	***18,950***	***670***
Junior High/Middle Schools			
Bonita Vista Middle	1,710	1,302	408
Castle Park Middle	1,530	1,283	247
Chula Vista Middle	1,440	1,405	35
Granger Jr.	1,170	1,117	53
Hilltop Middle	1,440	1,239	201
Mar Vista Middle	1,440	1,343	97
Montgomery Middle	1,500	1,080	420
National City Middle	990	851	139
Rancho del Rey Middle	1,680	654	1,026
Southwest Jr.	1,320	1,212	108
Subtotal	***14,220***	***11,486***	***2,234***
TOTAL	**33,840**	**30,436**	**3,404**

23 Adjusted capacity accounts for classrooms assigned for special education programs and learning centers. These students are not calculated in the CBEDs enrollment.

24 Unofficial enrollment is the October 1998 enrollment reported to the State of California.

Sweetwater Union High School District		
Future Schools	**Capacity**	**Target Date**
Junior/Middle School in EastLake Trails	1,400	2003
Otay Ranch[25]		
Two Middle Schools	1,570 each	unknown
Two High Schools	2,400 each	unknown
Otay Mesa		
One High School	2,400	2002

3.5.5 School Sizing and Location

The Otay Ranch SPA One is proposed to consist of 6,121 dwelling units at buildout. At the student generation factors shown below, this would translate into approximately 1,837elementary students, 613 middle school students, and 1,163 high school students as shown in Table 21. At completion, the proposed Otay Ranch SPA One project could generate approximately 3,787 students.

Student Generation Factors:

Elementary (K-6)	=	.30	students/dwelling unit
Middle School (7-8)	=	.10	students/dwelling unit
High School (9-12)	=	.19	students/dwelling unit

By phase and school category, Otay Ranch SPA One is expected to generate the following students:

25 Otay Ranch GDP, Facility Implementation Plan, pg 246.

Table 21
STUDENT GENERATION BY DEVELOPMENT PHASE

Development Phase	Dwelling Unit	Elementary .3/DU	Middle .10/DU	Sr. High .19/DU	Total
Village 1					
Blue	568	170	57	108	335
Green	634	190	63	120	374
Brown	310	93	31	59	183
Purple	1,137	341	114	216	671
Subtotal Village 1	*2,649*	*795*	*265*	*503*	*1,563*
Village 5					
Pink	236	71	24	45	139
Yellow	561	168	56	107	331
Red	301	90	30	57	178
Subtotal Village 5	*1,098*	*329*	*110*	*209*	*648*
Village 1E/5W					
Grey	1,010	303	101	192	596
Orange	474	142	47	90	280
Subtotal Village 1E/5W	*1,484*	*445*	*148*	*282*	*876*
Village 1W					
Silver	*408*	122	41	78	241
Gold	*482*	145	48	92	284
Subtotal Village 1W	*890*	*267*	*89*	*169*	*525*
TOTAL SPA ONE	6,121	1,837	613	1,163	3,613

School Size Standards:

Elementary	700	students
Middle	1,400	students
Senior High	2,400	students

As established in the GDP for the Otay Ranch Project, Facility Implementation Plan, school facilities should be sited according to the following criteria. The ideal site should be:

1. At least ten (10) usable acres for an elementary school, twenty-five (25) net usable acres for a middle/junior high school, and at least fifty (50) net usable acres for a senior high school, to adequately accommodate the loading and

unloading of students, future expansion of facilities and offer design flexibility.

2. Centrally located to residential development to reduce bussing requirements, reduce walking distances for young children, encourage after-hours use of facilities by the public and discourage vandalism.

3. Adjacent to a street or road which can safely accommodate bike, foot and vehicular traffic. Middle school and high school sites should have no less than two sides with street frontage. Urban high schools are best located adjacent to collectors that can handle the increased traffic volume of student drivers and the entrance to the school should be signaled.

4. Topography and environmentally safe and suitable to reduce site preparation costs and permit maximum use of the site for physical activities.

5. Of sufficient usable acreage on one level and configuration to not limit the design of buildings and provide field and parking space.

6. Surrounded by land uses that produce a minimum of noise and traffic often associated with commercial and heavy industrial areas.

7. Located adjacent to parks to enable joint field and recreation facility uses.

8. Vacant and undeveloped with utilities stubbed to the site in order to reduce financial and costs of site acquisition.

9. Located such that utilities and services (e.g. cable television, fire protection, emergency medical services) are or will be readily available, to reduce site development costs.

10. Near imminent development of adjacent properties to insure road and other necessary off-site improvements are available in a timely manner.

11. In a location acceptable to the State Division of Aeronautics with regard to distance from Brown Field.

12. A safe distance, i.e., as required by law, from contaminants or toxins in the soil or groundwater from landfills, fuel tanks, agricultural areas, power lines, utility easements, et. al.

13. Outside of floodplains; on stable soils; away from fault lines.

14. Integrated into the system of alternative transportation corridors, i.e., bike lanes, riding and hiking trails, and mass transit, where appropriate.

In addition, while it is acceptable and desirable, according to Sweetwater Union High School District, to locate junior high/middle schools near high schools, it is not desirable that either be located near an elementary school. The Chula Vista Elementary School District staff also stated a preference for this separation to avoid the mixing of older students with younger students.

Elementary Schools

Based on maximum elementary school capacity levels, it is anticipated that the projected 1,837 elementary students will create a demand of approximately 2.6 or 3 elementary school facilities using an "average" school size of 700. There are no existing elementary schools within SPA One. The Otay Ranch SPA One land plan identifies one ten acre elementary school site within the Village One and Village Five village cores and a third site within Village One West.

Elementary Schools

It is anticipated that elementary school facilities will be constructed in the following manner:

1. First school in Village One

    - The applicant shall deliver a graded school site to the District, including utilities provided to the site and an all weather road acceptable to the Fire Department and District, prior to issuance of the 500th building permit. This schedule is subject to modification by the District based on District facilities needs.

2. Second school in Village Five

    - The applicant shall deliver a graded school site to the District, including utilities provided to the site and an all weather road acceptable to the Fire Department and District, prior to issuance of the 2,500th building permit. This schedule is subject to modification by the District based on District facilities needs.

3. Third school in Village One West

    - The applicant shall deliver a graded school site to the District, including utilities provided to the site and an all weather road acceptable to the Fire Department and District, prior to issuance of the 4,500th building permit. This schedule is subject to modification by the District based on District facilities needs.

Middle Schools

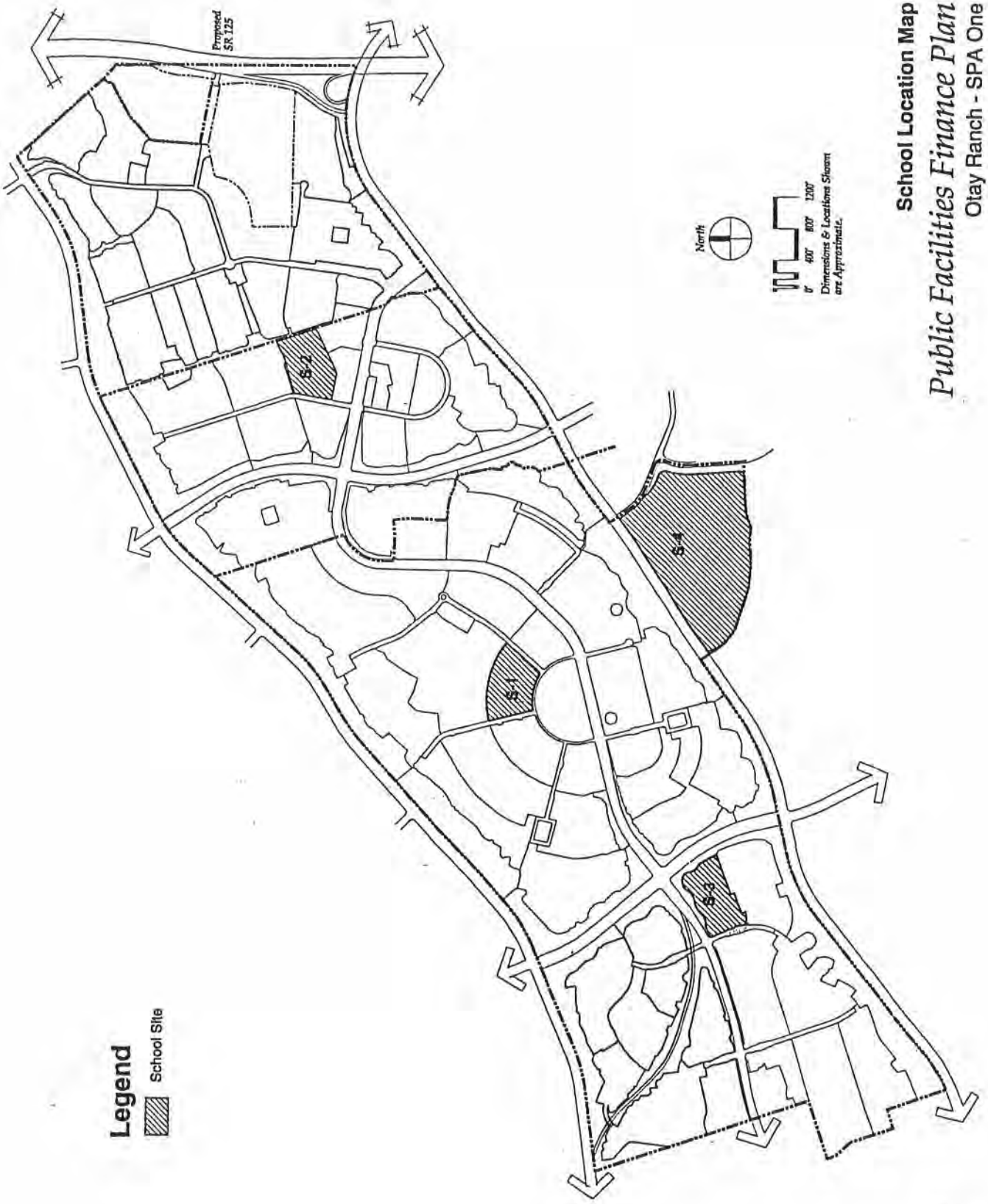
Based on the maximum middle school capacity of 1,400 students, it is anticipated that the 613 middle school students will be served at existing facilities (Rancho del Rey Middle School) until the first Otay Ranch middle school is

constructed. The Otay Ranch GDP School Facilities Implementation Plan is based on the premise that schools will be constructed when half of the school's projected students reside in the community.

High Schools

Based on the maximum high school capacity of 2,400 students, it is anticipated that the 1,163 students generated from SPA One will be served by a new high school in Otay Ranch.

The Sweetwater District has requested that grading for the high school site commence when 352 SPA One high school students are generated.



School Location Map

Public Facilities Finance Plan

Otay Ranch - SPA One

Exhibit 13

It is anticipated that the high school site will be delivered to the Sweetwater Union High School District in the following manner:

1. At the threshold of 1,400 DUs, deliver a rough graded 50 net usable acre high school site to the district. Utilities and an all weather access road shall be provided to the property line.

3.5.6 Financing School Facilities

California Government Code section 65995 and Education Code Section 53080 authorize school districts to impose facility mitigation exactions on new development as a way to address increasing enrollment caused by that development.

The current developer fee for the Sweetwater Union High school District is $1.08 and $0.17 per square foot for residential and non-residential, respectively. The current (1998-2000) developer fee for the Chula Vista Elementary School District is $0.85 and $0.14 per square foot for residential and non-residential, respectively.

Although the collection of school fees is one method available to defray the cost of new development, it is not an acceptable solution since the maximum amount which could be collected by law represents less than one-fourth the cost to construct schools.

In recognition of this funding deficiency, it is the policy of each district to fully mitigate the facility impacts caused by a master planned community via the creation of a Mello-Roos Community Facilities District as a condition of approval of the SPA Plan (CVESD) or prior to recordation of a final map (SUHSD). The following Mello-Roos Districts have been created by each district:

SUHSD

CFD No. 1	EastLake
CFD No. 2	Bonita Long Canyon
CFD No. 3	Rancho del Rey
CFD No. 4	Sunbow
CFD No. 5	Mission Verde/Annexable
CFD No. 6	Otay Ranch
CFD No. 8	Coral Gate: (Otay Mesa)
CFD No. 9	Ocean View Hills (Otay Mesa)
CFD No. 10	Remington Hills/Annexable
CFD No. 11	Lomas Verde

CVESD

CFD No. 1	EastLake
CFD No. 2	Bonita Long Canyon
CFD No. 3	Rancho del Rey
CFD No. 4	Sunbow
CFD No. 5	Territory for Future Annexations
CFD No. 6	Otay Ranch
CFD No. 10	Annexable
CFD No. 11	Lomas Verde

The school facilities construction costs are based on historical data available from each district. Both districts follow state standards for determining the costs and size for school construction. The costs, including land acquisition, for a high school is approximately $17,960 per student (1998 dollars). Excluding land, the cost is $13,960 per student. The costs, including land acquisition, for a middle school is approximately $16,333 per student (1998 dollars). Excluding land, the cost is $13,000 per student. The costs, including land acquisition, for an elementary school is approximately $13,489 per student (1998 dollars). Excluding land, the cost is $10,289 per student. Land value is calculated at $200,000/acre sheet graded (10 acre elementary school site).

Using the above costs per student together with the school size, the following costs per facility can be anticipated.

Elementary School Cost

(625 students)($10,289/student w/o land cost) =	$6,430,525
(625 students)($13,489/student w/ land cost)=	$8,430,625

Middle School Cost

(1,400 students)($13,000/student w/o land cost) =	$19,500,000
(1,400 students)($13,401/student w/ land cost) =	$18,761,400

High School Cost

(2,400 students)($13,960/student w/o land cost) =	$34,900,000
(2,400 students)($17,960/student w/land cost) =	$44,900,000

Table 22
ESTIMATE OF SCHOOL FACILITY COSTS

Facility	Segment	SPA One Responsibility	Unit Cost	Cost
Elementary Schools	N/A	2.6 ea.	$8,430,525	$21,919,365
Middle School	N/A	0.5 ea	19,500,000	9,750,000
High School	N/A	0.5 ea	44,900,000	22,450,000
			Subtotal Schools	**$54,119,365**

3.5.7 Threshold Compliance

As future development applications are processed in the Eastern Territories, the City shall coordinate with each school district to ensure that development does not occur until acceptable school site(s) are identified and a financing mechanism satisfactory to each district is in place.

Chula Vista Elementary School District CFD No. 6 has been established to fully mitigate the impact of development on elementary schools within Otay Project, LLC's SPA One ownership.

Sweetwater Union High School District CFD No. 6 has been established to fully mitigate the impact of development on high school and middle schools with Otay Project, LLC's SPA One ownership.

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3.6 Libraries

3.6.1 Threshold Standard

Population ratio: 600 square feet (gross) of library adequately equipped and staffed facility per 1,000 population.

3.6.2 Service Analysis

Library facilities are provided by the City of Chula Vista..

The Otay Ranch Facilities Implementation Plan identifies the Eastern Urban Center as the future location of the library.

Library facilities and services are also addressed in the Facility Implementation Plan dated October 28, 1993, as part of the GDP and in the Otay Ranch SPA One.

3.6.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Identify phased demands in conjunction with the construction of streets, water and sewer facilities.
2. Specifically identify facility site in conformance with the Chula Vista Library Master Plan, April 30, 1987.

3.6.4 Existing Conditions

Inventory

The City provides library services through the Chula Vista Public Library at Fourth and "F" Street (Civic Center), the South Chula Vista Library in the Montgomery/Otay planning area, and the library at the EastLake High School. The Castle Park and Woodlawn Libraries have been closed. The existing and future libraries are listed on the following tables.

Table 23
EXISTING LIBRARY FACILITIES

Existing Libraries	Square Footage
Chula Vista (Civic Center)	55,000
South Chula Vista	37,000
EastLake	10,000
Total Existing Square Feet	**102,000**

Table 24
FUTURE LIBRARY FACILITIES

Future Libraries	Square Footage	Estimated Cost
Sweetwater/Bonita	29,000	$ 11,153,440
Eastern Territories (17,000 sf total - 10,000 sf @ EastLake existing)	7,000	6,758,770
Total Planned Square Feet	**36,000**	**$ 17,912,210**
Total Planned Library Square Feet	**138,000**	

3.6.5 Adequacy Analysis

Using the threshold standard of 600 square feet of library space per 1,000 population, the demand for library space based on a July 1997 population of 157,427 is 78,714 square

feet. Chula Vista currently provides 102,000 square feet of library space. This represents a 23,287 square foot surplus.

The demand generated by the "approved" dwelling units is 14,999 square feet. The demand for library space generated by existing and approved dwelling units totals 93,713 (78,714 + 14,999) square feet. Comparing the existing library square footage of 102,000 square feet, there would still be a surplus of 8,287 square feet after build-out of the 8,680 approved dwelling units.

The following table highlights existing plus approved project demands for library space as compared to the existing and scheduled library space as well as the impact of the Otay Ranch SPA One project on library facilities.

Table 25
LIBRARY SPACE DEMAND VS. SUPPLY

		Population	Demand Sq. Ft.	Supply Sq. Ft.	Above/ Below Standard
Existing (Citywide)		157,427	78,714	102,000	23,287
Approved Projects		24,998	14,999		8,287
(8,680* x 2.88)					
	Subtotal	**182,425**	**93,713**	**102,000**	**8,287**
SPA One Phases					
Village 1					
Blue	568	1,636	981		
Green	634	1,826	1,095		
Brown	310	893	536		
Purple	1,137	3,275	1,965		
Subtotal Village 1	***2,649***	***7,629***	***4,577***		
Village 5					
Pink	236	680	408		
Yellow	561	1,616	969		
Red	301	867	520		
Subtotal Village 5	***1,098***	***3,162***	***1,897***		
Village 1W					
Silver	408	1,175	705		
Copper	298	858	833		
Subtotal Village 1W	***1,188***	***3,421***	***1,538***		
Village 1E/5W					
Grey	1,010	2,909	1,745		
Orange	474	1,365	819		
Subtotal Village 1E/5W	***1,484***	***4,274***	***2,564***		
SUBTOTAL SPA ONE	**6,419**	**18,487**	**10,577**		
TOTAL		**200,054**	**104,290**	**102,000**	**-2,290**
*Approved Projects on July 1997					
Note: Existing City Population as of July 1997					

Otay Ranch SPA One will have a total library demand of 10,577square feet. The Otay Ranch GDP plans for the location of a 36,758 sq. ft. main library in the Eastern Urban Center (EUC). The demand for 10,577 sq. ft. of library facilities generated by the build-out of SPA One will

ultimately be satisfied by the 36,758 sq. ft. main library in the EUC. However, the timing of construction of this library it is not known at this time.

3.6.6 Financing Library Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for nine categories of public facilities within the City of Chula Vista. 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 fees were updated by adoption of Ordinance No. 2554 on April 27, 1993. The current fee is $2,150 per equivalent dwelling unit.

The Otay Ranch SPA One project is not within the boundaries of the current public facilities DIF program. However, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current library fee rate, the Otay Ranch SPA One library obligation at buildout is $$3,384,768.

Exhibit 26
PUBLIC FACILITIES FEES FOR LIBRARIES

Development Phase	EDUs	Library Fee @ $544/EDU
Village 1		
Blue	568.0	308,992
Green	634.0	344,896
Brown	310.0	168,640
Purple	1,195.5	650,352
Subtotal	***2,707.5***	***1,472,880***
Village 1E/5W		
Grey	1,038.4	564,890
Orange	474.0	257,856
Subtotal	***1,512.4***	***822,746***
Village 5		
Pink	236.0	128,384
Yellow	575.1	312,854
Red	301.0	163,744
Subtotal	***1,112.1***	***604,982***
Village 1W		
Silver	408.0	221,952
Gold	482.0	262,208
Subtotal	***890.0***	***484,160***
Total	**6,222.0**	**$3,384,768**

3.6.7 Threshold Compliance

Based upon the analysis contained in this PFFP, it is projected that the library threshold standard will be maintained throughout the development of the Otay Ranch SPA One project. The existing library space totals 102,000 square feet, while the total "approved" projects and Otay Ranch SPA One project demand is 104,290 square feet. This results in City-wide deficit of 2,290 square feet. Consistent with the recently adopted *Library Master Plan*, this deficit will be remedied through construction of a 30,000 square foot library facility within the Rancho del Rey community.

No mitigation is required other than the payment of the Public Facilities Fee for library facilities at the rate in effect at the time building permits are issued.

LIBRARY

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3.7 Parks, Trails and Open Space

3.7.1 Threshold Standard

Three (3) acres of neighborhood and community parkland with appropriate facilities shall be provided per 1,000 residents east of Interstate 805. In addition, the Otay Ranch GDP requires twelve (12) acres of other active and passive recreation and open space per 1,000 residents. (Ref: Otay Ranch GDP, Page 250).

3.7.2 Service Analysis

The City of Chula Vista provides public park and recreational opportunities through the Planning, Public Works and Library/Recreation Departments which are responsible for the acquisition and development of parkland. All park development plans are reviewed by City staff and presented to the Parks and Recreation Commission for review. A recommendation is made by the Parks Commission to the deciding body, the City Council.

The Parks and Recreation Element of the General Plan dated July 1990 and revisions through September 5, 1995 serves as the master plan for park facilities. While there is currently no existing citywide detailed park master plan, the City is nearing completion of a new Park Master Plan which will be forwarded to the City Council for approval. The Otay Ranch GDP required as a condition of SPA approval that a Parks Master Plan be prepared. As a result, the Applicant prepared the Parks, Recreation, Open Space and Trails Master Plan for the initial SPA One dated June 4, 1996. In November 1998, this document was revised to include the expanded SPA One development area.

Parks, recreation and open space facilities and services are also addressed in the Facility Implementation Plan dated October 28, 1993, as part of the GDP and in the Otay Ranch SPA One.

3.7.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Identify phased demands in conformance with street improvements and in coordination with the construction of water and sewer facilities.
2. Specific siting of the facility will take place in conformance with the Chula Vista General Plan Park and Recreation Element.
3. Site reserved.

3.7.4 Existing Conditions

The existing and future parks as depicted in the Park and Recreation Element of the General Plan are listed in Tables 31 and 32.

3.7.5 Otay Ranch SPA One Park Requirements

Compliance to Public Park Standards

All new development in the City of Chula Vista is subject to the requirements contained in the City's Parkland Dedication Ordinance revised June 22, 1991, which is confirmed in Municipal Code Chapter 17.10. The Ordinance establishes land development fees for park acquisition and development, sets standards for dedication and establishes criteria for acceptance of parks and open space by the City of Chula Vista.

Parkland dedication requirements are shown Table 28.

Table 27
PARKLAND DEDICATION STANDARDS

Dwelling Unit Type	Land Dedication per Unit	Dwelling Units per Park Acre
Single-Family Detached	423 sf/du	102.9 du/ac
Single-Family Attached	366 sf/du	119.0 du/ac
Multiple-Family	288 sf/du	151.0 du/ac

Table 28
PARKLAND DEDICATION REQUIREMENTS PER CITY ORDINANCE

Dwelling Unit Type	Parkland Required/DU	DUs	Park Acres Required
SFD	423 SF/DU	3,494	33.9
SFA	366 SF/DU	546	4.6
MF	288 SF/DU	2,081	13.7
TOTAL		**6,121**	**52.2**

Table 29
CHULA VISTA EXISTING LOCAL PARK INVENTORY

	Acres[27] West of I-805	East of I-805
Community Parks		
Eucalyptus Park	19.8	
Chula Vista Community Park		12.9
Greg Rogers Park		52.1
Rohr Park		62.2
Discovery Park		14.5
Total Existing Community Acres:	**19.8**	**141.7**
Neighborhood Parks		
Marina View Park	4.5	
Friendship Park	8.4	
Memorial Park	8.0	
Explorer Park		5.0
Norman Park	1.7	
Hilltop Park	10.9	
Lauderbach Park	4.0	
Palomar Park	3.1	
Orange Avenue Fields	4.0	
Reinstra Ball Field	6.0	
Loma Verde Park	6.2	
SDG&E Park	18.0	
Otay Park	5.2	
Los Niños Park	5.2	
Bay Boulevard Park	1.5	
Valle Lindo Park		4.2
Halecrest Park		2.0
Terra Nova Park		7.0
Independence Park		4.1
Tiffany Park	7.2	
Paseo del Rey Park		3.0
Bonita Long Canyon Park		12.5
Sunridge Park		6.0
Sunbow Park		4.0
Rancho del Rey Park		10.2
Connoley Park	.65	
Holiday Estates I	.26	
Holiday Estates II	.26	
Lancerlot Park	.10	
Sherwood Park	.28	
Total Existing Neighborhood Acres:	**95.45**	**58.0**
EXISTING INVENTORY TOTAL	**115.25**	**199.7**

27 Inventory and acreages provided by the Planning & Building Department .

Table 30
CHULA VISTA FUTURE LOCAL PARKS

	Acres[28] West of I-805	East of I-805
Future Community Parks		
San Miguel Ranch		15.0
Salt Creek		19.8
Rolling Hills Ranch		20.0
Eastern Urban Center		20.0
Wolf Canyon		25.0
Sunbow II Community		10.5
Montgomery	24.0	
Total Future Community Acres	**24.0**	**110.3**
Future Neighborhood Parks		
Marisol Park		6.0
Rancho Drive Park	16.0	
EastLake Greens		10.0
Bayfront	7.0	
F Street & Woodlawn	5.0	
Otay Valley Rd. & Brandywine		5.0
EastLake Woods		7.0
EastLake Vista		10.0
Rolling Hills Ranch		7.0
Otay Ranch		
Village 1 – Heritage		11.6
Village 1 – Harvest		6.5
Village 1 West		5.0
Village 2		10.0
Village 4		3.4
Village 5		6.7
Village 5		5.3
Village 5		2.0
Village 5		0.9
Village 6		10.0
Village 7		9.3
Village 8		8.9
Village 11		10.0
Total Future Neighborhood Acres:	**28.0**	**134.6**
FUTURE TOTAL	**52.0**	**244.9**

28 Inventory and acreages provided by the Planning & Building Department.

PARKS, TRAILS AND OPEN SPACE

Exhibit 14

Parks, Recreation, Open Space & Trails Plan

As contained in the SPA One Land Use Summary (Table 4), the park designations and acreage are shown in Table 31. In addition, Table 31 identifies the phase of development in which the park will be constructed and the park acres that the City has determined will be given credit for purposes of measuring the supply of parkland against the demand generated by the Parkland Dedication Ordinance.

Table 31
SPA ONE PARK ACREAGES AND ELIGIBLE CREDITS

Park Identification	Parkland Acreage	Phase	Eligible Credit Acres
Village One			
P-1	10.85	Blue	10.85
P-2	6.40	Brown	6.40
P-3	2.20	Green	
P-4	0.80	Blue	
P-12	0.80	Purple	
Subtotal Village One	***21.05***		***17.25***
Village 1E/5W			
P-5	0.85	Grey	0.43
P-6.1	4.79	Grey	4.79
P-7	5.68	Orange	5.68
P-8	0.90	Orange	0.90
P.9.1	1.0	Grey	0.5
Subtotal Village One East/Five West	***13.22***		***12.30***
Village 5			
P-6.2	1.50	Yellow	1.50
P-9.2	1.00	Yellow	0.50
P-10	1.20	Pink	-
P-11	0.60	Red	-
Subtotal Village Five	***4.30***		***2.00***
Village One West/Two West			
P-13	5.10	Gold	5.10
Subtotal Village One West	***5.10***		***5.10***
Subtotal Neighborhood Parks	**43.67**		**36.65**
Community Park Acreage	**-**		**16.20**
Total Combined Park Acreage	**43.67**		**52.85**

Using the parkland dedication requirements, 52.2 acres of public parkland is required for dedication by the Otay Ranch SPA One development. This differs by 0.7 acres from the 52.9 acres required by the Otay Ranch GDP using 3 acres per 1,000 people requirement due to the variation in the number of persons per dwelling unit used in the Municipal Code versus the factor (2.88) used in Table 32. For purposes of this analysis, the demand shown in Table 32 will be used because it is believed that it more accurately reflects actual distribution of SFA, SFD and MF units.

3.7.6 Adequacy Analysis

The following table provides a comparison of park acreage demands and supply within the phases of the Otay Ranch SPA One project.

Table 32
PARK ACREAGE DEMAND VS. SUPPLY SPA ONE

	DUs	Population	Demand Park Acres	Supply Park Acres	Eligible Park Credits	Net Park Acres +/- Standard	Cumulative Standard /Ownership
Village 1							
Blue	568	1,636	3.3	11.7	10.9	7.6	7.6
Green	634	1,826	3.7	2.2	-	(3.7)	3.9
Brown	310	893	1.8	6.4	6.4	4.6	8.5
Purple	1,137	3,275	6.5	0.8		(6.5)	2.0
Subtotal	***2,649***	***7,629***	***15.3***	***21.1***	***17.3***		
Village 1E/5W							
Grey	1,010	2,909	5.8	6.6	5.7	(0.1)	(0.1)
Orange	474	1,365	2.7	6.6	6.6	3.8	3.7
Subtotal	***1,484***	***4,274***	***8.5***	***13.2***	***12.3***		
Village 5							
Pink	236	680	1.4	1.2	-	(1.2)	(1.2)
Yellow	561	1,616	3.2	2.5	2.0	(1.2)	(2.4)
Red	301	867	1.7	0.6	-	(1.7)	(4.2)
Subtotal	***1,098***	***3,162***	***6.3***	***4.3***	***1.5***		
Village 1W							
Silver	408	1,175	2.4	-		(2.4)	(2.4)
Gold	482	1,388	2.8	5.1	5.1	2.3	(0.0)
Subtotal	***890***	***2,563***	***5.1***	***5.1***	***5.1***		
TOTAL Neighborhood Park	**6,121**	**17,628**	**35.3**	**43.7**	**36.6**	-	
Community Park @1.0 ac/1,000 pop)			**17.6**	**16.2**	**16.2**	**(1.4)**	
TOTAL SPA ONE			**52.9**	**59.9**	**52.9**	**0.0**	**0.0**

Note: At no time after issuance of building permits for the 500th dwelling unit shall there be a SPA-wide deficit in constructed neighborhood park acreage based upon 2 acres/1,000 residents.

Prior to approval of the first final "B" map within Village One West, the Applicant must enter into an agreement to construct the P-13 neighborhood park.

Neighborhood Parks

As shown in Table 32, SPA One generates a population of 1, which translates into a neighborhood and community park demand of52.9 acres using the 3 acres per 1,000 population standard. While Municipal Code Chapter 17.10 does not make a distinction between neighborhood and community park in the application of the 3 acres per 1,000 population standard, the SPA One plan applies 2 of the 3 acres to neighborhood parks and approximately 1 acre to community parks. In so doing, the plan includes 43.7 acres of neighborhood parks ranging in size from 0.6 to 10.9 acres on a total of twelve sites. Four of the sites contain parks ranging in size from 5.3 to 11.6 acres and one site is the Town Square park of 0.9 acres. The remaining six sites are considered pedestrian parks ranging in size from 0.6 to 2.1 acres. Private pedestrian parks located in neighborhoods with attended entrances are not eligible for park credit.

Community Park

The SPA One plan also identifies a 25 acre community park within Otay Ranch Village Two. As shown in Table 32, SPA One generates a community park demand of 17.6 acres applying a 1 acre per 1,000 population standard. However, SPA One will allocate 16.2 acres toward the community park requirement that, together with the neighborhood park acreage provided within the SPA One project area, satisfies the SPA One park demand of 52.9 acres.

In order to secure the Community Park improvements in Otay Ranch, the community park component of the PAD fees will be deposited by the City in a special account to be used for such improvements. Credit for community parks will be charged against the community park portion of the PAD fees. Likewise, credit for neighborhood parks will be charged against the neighborhood park portion of the PAD fees.

3.7.7 Trails and Open Space

Open Space

As indicated in Section 3.7.1, twelve (12) acres of active and passive recreation and open space shall be provided per 1,000 residents of the Otay Ranch.

The Otay Ranch GDP identifies two types of open space: (1) natural open space and (2) other open space such as neighborhood and community parks, buffers, scenic corridors, etc.

Natural Open Space

The majority of the natural open space within Otay Ranch is governed by the Resource Management Plan (RMP), which establishes a Resource Preserve open space system of approximately 11,375 acres to be incrementally conveyed to a non-profit or public "preserve owner/manager" (POM) in acreage proportionate to actual development of Otay Ranch property. The POM is responsible for the maintenance, enhancement and restoration of the land within the preserve. The ongoing maintenance and operation of preserve land and resources will be funded through an assessment or exaction imposed upon Otay Ranch development. No SPA One lands are within the Resource Preserve.

Other Open Space

SPA One generates a need for 240.0 acres of local open space, based on the GDP requirement (GDP Page 250) to provide 12 acres of local open space per 1,000 residents. The GDP Land Use Plan satisfies this requirement on a ranch-wide basis. The SPA One project area is surrounded by a 227.8 acre open space buffer system varying in size from 100 to 700 feet along prime arterials and 30 to 280 feet along major streets. The Otay Ranch GDP requires a 75-foot

average buffer on arterial streets. This requirement is satisfied within SPA One.

Table 33
LOCAL OPEN SPACE ACRES

SPA One Population	Standard	Local Open Space Acres
17,628	12 Acres/1,000 residents	211.5

The maintenance of buffer-type open space will be funded through a Community Facility District.

Trails

A system of local bicycle and pedestrian paths within Villages One, Five and One West connect to regional trails. For additional detail, reference is made to the *SPA One Parks, Recreation, Open Space and Trails Master Plan.*

Trails will be phased in conjunction with adjacent open space. The timing of construction of trail connections outside of a phase of open space will be considered at the Tentative Map stage. These trails will be constructed by the developer within the open space district and maintained by the district or by a homeowner association.

3.7.8 Financing Park Facilities

The financing of parkland and improvements is governed by Chapter 17.10 of the Chula Vista Municipal Code as last amended June 22, 1991. Included as part of the regulations are Park Acquisition and Development (PAD) fees established for the purpose of providing neighborhood and community parks and improvements are included in this regulation. The Ordinance provides that fees are paid to the City prior to approval of a final subdivision map.

The Otay Ranch SPA One project is responsible for the following PAD Fees. However, the applicant may construct

parks and receive credit against the payment of such PAD fees.

Table 34
PARK ACQUISITION AND DEVELOPMENT FEES

	Dwelling Units			SFD @ $4,375	SFA @ $3,810	MFD @ $2,990	Total PAD Fees
	SFD	SFA	MFD				
Village 1							
Blue	408		160	$ 1,785,000		$ 478,400	$ 2,263,400
Green	466	-	168	2,038,750		502,320	2,541,070
Brown	83	-	227	363,125		678,730	1,041,855
Purple	270	-	867	1,181,250		2,592,330	3,773,580
Village 1E/5W							
Grey	345	207	458	1,509,375	788,670	1,369,420	3,667,465
Orange	199	74	201	870,625	281,940	600,990	1,753,555
Village 5							
Pink	236	-	-	1,032,500	-	-	1,032,500
Yellow	478	83	-	2,091,250	316,230	-	2,407,480
Red	119	182	-	520,625	693,420	-	1,214,045
Village 1W							
Silver	408	-	-	1,785,000	-	-	1,785,000
Gold	482	-	-	2,108,750	-	-	2,108,750
TOTAL	**3,494**	**546**	**2,081**	**$ 15,286,250**	**$ 2,080,260**	**$ 6,222,190**	**$ 23,588,700**

3.7.9 Funding Park and Open Space Maintenance

Local park sites and improvements will be provided through the City's Parkland Dedication Ordinance whereby the developer shall receive credit against PAD Fees for the dedication and construction of eligible park improvements.

The maintenance of public park lands will be funded from the City of Chula Vista General Fund. The maintenance of buffer-type open space will be funded through an open space maintenance district.

The ongoing maintenance and operation of the Resource Preserve and resources will be funded through an assessment or exaction imposed upon Otay Ranch development.

3.7.10 Threshold Compliance

Based upon the analysis contained in this section of the PFFP, the parks standard for both neighborhood and community parks measured on an area-wide basis east of Interstate 805 is projected to be met at the completion of SPA One.

On a project-level, the neighborhood parks provided within SPA One meet the demand on a cumulative basis. In order to comply with the City's local park standard, it is the responsibility of the developer to comply with the City's Landscape Manual related to park planning, to grade the sites according to the approved plan, and to install improvements or pay fees, or a combination thereof, as required by the City's Parkland Dedication Ordinance.

In addition, the developer shall participate financially in proportion to other developers in a collaborative study analyzing local parks needs for the area east of I-805 Freeway prior to approval of the first final map.

Community Park Phasing

1. Prior to the issuance of a building permit for the 1,150 DU, a community park site shall be identified to satisfy the SPA local park requirement.

2. Prior to the issuance of a building permit for the 2,650 DU, construction of the 1st phase of the community park shall commence.

3. Prior to the issuance of a building permit for the 3,000 DU, construction of the 2nd phase of the community park shall commence.

4. Prior to the issuance of a building permit for the 3,900 DU, the community park and facilities shall be ready for acceptance by the City for maintenance.

Neighborhood Park Phasing

At no time after issuance of building permits for the 500th dwelling unit shall there be a SPA-wide deficit in constructed neighborhood park acreage based upon 2 acres/1,000 residents.

Where the City elects to construct parks, the City may, at the City's option, act to oversee design and construction of such parks through the City's Parks and Recreation Department. This shall include the selection of the design and engineering consultants as well as the prime contractor.

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3.8 Water

3.8.1 Threshold Standard

1. Developer will request and deliver to the City a service availability letter from the Water District for each project, as defined by the City.

2. The City shall annually provide the San Diego County Water Authority, the Sweetwater Authority, and the Otay Water District with a 12 to 18 month development forecast and request and evaluation of their ability to accommodate the forecast and continuing growth. The District's replies should address the following:

   a) Water availability to the City and Planning Area, considering both short and long term perspectives.

   b) Amount of current capacity, including storage capacity, now used or committed.

   c) Ability of affected facilities to absorb forecast growth.

   d) Evaluation of funding and site availability for projected new facilities.

   e) Other relevant information the District(s) desire(s) to communicate to the City and GMOC.

The growth forecast and water district response letters shall be provided to the GMOC for inclusion in its review.

3.8.2 Service Analysis

Water is provided to the City of Chula Vista through the San Diego County Water Authority, Sweetwater Authority, and the Otay Water District. The City of Chula Vista is working with each of these special districts to ensure that new growth will not reduce the availability of adequate water supplies or jeopardize the water quality standards within the City. Each of these districts is responsible for providing capital facilities necessary to accommodate future growth as well as providing services to existing development within the City of Chula Vista.

The Sweetwater Authority utilizes the Sweetwater Authority Water Master Plan, dated December 1989.

The Otay Water District utilizes the Water Resources Master Plan dated April 1995 and prepared by Montgomery Watson. The document is the planning document used for all future CIP water facility work. An environmental impact report was also prepared to assess the impacts of the Master Plan. Wilson Engineering prepared the *Subarea Master Plan for Potable and Recycled Water for SPA One* (SAMP) dated April 6, 1998, consistent with the Water Resources Master Plan.

Water facilities and services are also addressed in the Facility Implementation Plan dated October 28, 1993, as part of the GDP and in the Otay Ranch SPA One.

3.8.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Identify phased demands in conformance with street improvements and in coordination with the construction of sewer facilities.
2. Identify location of facilities for on-site and off-site improvements in conformance with the master plan of the water district serving the proposed project.
3. Provide cost estimates and proposed financing responsibilities.
4. Identify financing methods.
5. A Water Conservation Plan shall be required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDU's of water demand or greater.

3.8.4 Existing Conditions

Much of the water used in the San Diego County Water Authority (CWA) area is imported from the Metropolitan Water District. MWD receives its water supply through the State Water Project and the Colorado River Aqueduct. The San Diego County Water Authority conveys water from the MWD to local purveyors within San Diego County.

SPA One is located entirely within the Otay Water District's Central Service Area.

Potable water is provided to the Central Service Area by the SDCWA via the Second San Diego Aqueduct. Water is delivered at Aqueduct connections No. 10 and No. 12 and is conveyed by gravity to the District's terminal reservoirs at a grade of 624 feet. One hundred percent of Otay Water District's demand is satisfied by purchases from the SDCWA together with use of recycled water from the Ralph W. Chapman Water Recycling Facility (RWCWRF). A small amount is also purchased from the Helix Water District (HWD).

The delivery and guaranteed availability of water to the City of Chula Vista continues to improve through the cooperative efforts of the water districts and the SDCWA.

3.8.5 Adequacy Analysis

Water Conservation Plan

A Water Conservation Plan is required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDUs of water demand or greater). This plan is required at the Sectional Planning Area (SPA) Plan level, or equivalent for projects which are not processed through a Planned Community Zone.

The *Water Conservation Plan for SPA 1 of the Otay Ranch Project* (April, 1995) and the *Water Conservation Plan for Villages One West and Two West of the Otay Ranch Project* (September 1998) were prepared by Wilson Engineering . These documents provide an analysis of water usage requirements of the proposed project, as well as a detailed plan of proposed measures for water conservation, use of recycled water, and other means of reducing per capita water consumption from the proposed project, as well as defining a program to monitor compliance. The Water Conservation Plan will not be prepared as part of the Public Facilities Financing Plan.

Otay Ranch SPA One Water Demand

SPA One is within the Otay Water District 711 pressure zone. Water demand is projected using unit demand factors from the SAMP. The projected average annual day, maximum day, and peak hour potable water demands for ultimate buildout are 1.74, 3.91, and 6.09 MGD, respectively.

Until recently, the policy of the Otay Water District was to provide emergency storage equivalent to ten average days' demand. However, this policy has recently been revised to provide a maximum of five average days of terminal storage capacity and rely on other storage or supply options to make up the difference. The total average annual day demand for SPA One is 1.74 mgd.

A total volume of 8.7 MG is required to provide five average days of total storage capacity. The SPA One project will comply with the emergency storage requirement by paying water meter capacity fees

Otay Water District Master Plan

The Otay Water District's new water and recycled water master plan includes water demands for this project as part of the overall demands in the area based upon land use data.

3.8.6 Existing Facilities

Potable Water

The recently completed Central Area Pump Station has a total firm pumping capacity of 23.0 mgd. In addition, there are two existing 711 reservoirs: the 711-1 (2.8 MG) and the 711-2 (2.2 MG).

Recycled Water

The District intends to construct the system of pumps, pipelines and reservoirs that will incorporate recycled water distribution to the consumers. Three water reclamation facilities could supply recycled water to the District. In the near term, the amount of recycled water will be limited to the output of the Ralph W. Chapman Water Reclamation Facility. If recycled water demand exceeds supply, potable water will be used to supplement the supply source to assure an uninterrupted supply to recycled water mains.

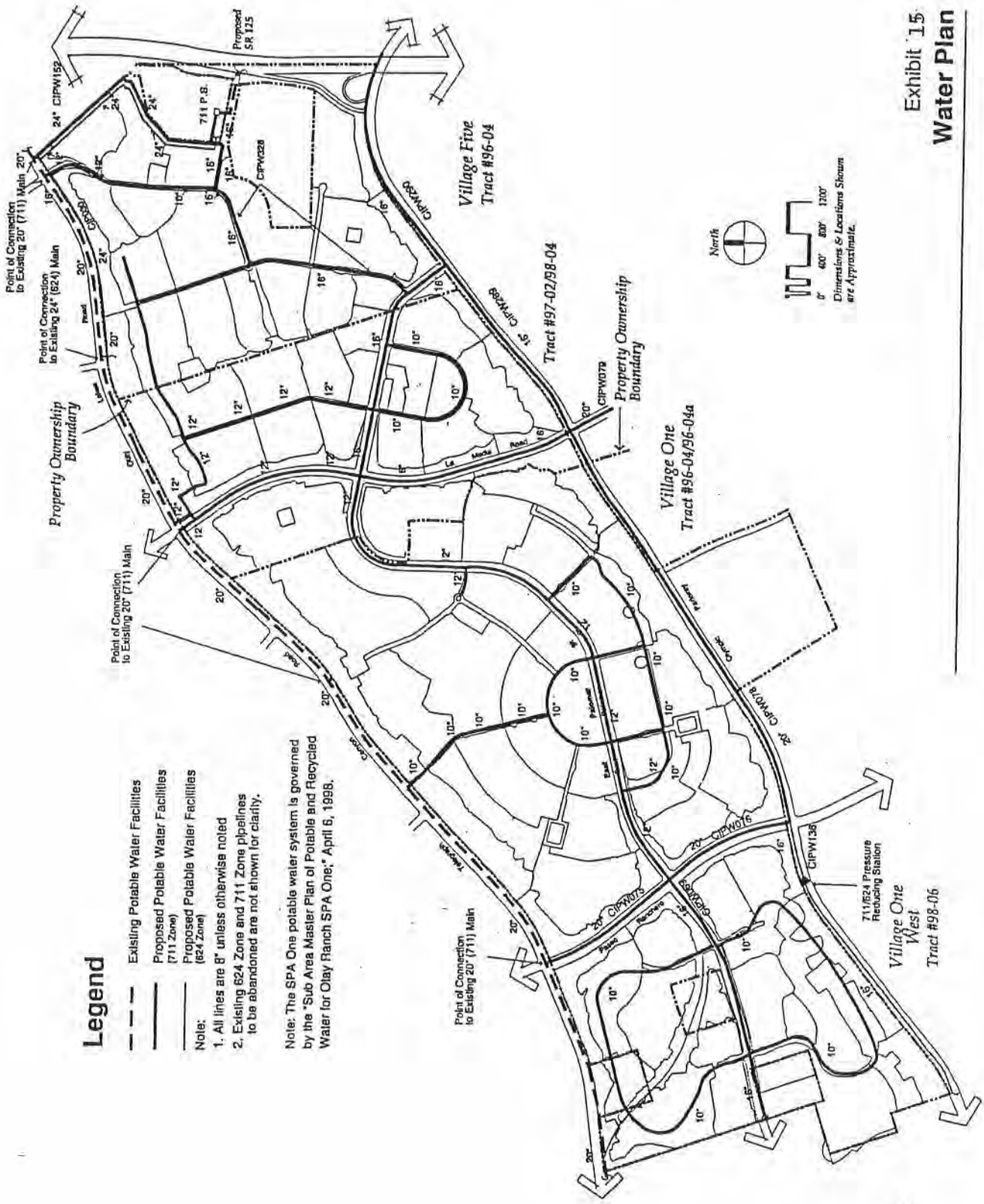
3.8.7 Proposed Facilities

A. Potable Water

Certain Otay Water District water facilities are needed to be constructed in conjunction with the Otay Ranch SPA One project. These facilities include a 711-3 reservoir and transmission mains in accordance with the SPA One SAMP.

Table 35
POTABLE WATER TRANSMISSION MAINS SERVING SPA ONE
(ALL ARE 711 ZONE UNLESS SPECIFIED OTHERWISE)

Existing Transmission Mains	**Size**
Otay Lakes Rd. - SR-125 to Telegraph Canyon Rd.	16- and 20-inch
Telegraph Cyn. Rd. - Otay Lakes Rd. to Paseo Ranchero	20-inch
From P.S. 711-1 to EastLake Parkway	20-inch
From P.S. 711-1 to Otay Lakes Rd. (to be replaced)	18-inch
New Transmission Mains Required	
From reservoir 711-3 or 711-4 to Olympic Pkwy. CIP No. W-130	800 ft of 42-inch
Olympic Pkwy. - 42x36 tee to Eastlake Pkwy. CIP No. W131	2,000 ft. of 36-inch
Eastlake Pkwy - Olympic Pkwy., to exist. 20-inch main CIP No. W131	3,000 ft. or 35-inch
Olympic Pkwy. - La Media Rd. to Paseo Ranchero Park of CIP No. W078	5,700 ft. or 20-inch
Paseo Ranchero - Olympic Pkwy. to E. Palomar St. CIP No. W076	1,900 ft. of 20-inch
Paseo Ranchero - E. Palomar St. to Telegraph Cyn. Rd. CIP No. W075	1,900 ft. of 20-inch
East Palomar St. – west of Paseo Ranchero CIP W069	3,000 ft of 16-inch
Olympic Pkwy. – west of Paseo Ranchero 624/711 Zone Pipeline and Pressure Reducing Station CIP No. W136	3,000 ft. of 16-inch
Future Mains not Required with SPA One	
From future P.S. 711-2 to EastLake Pkwy (path partly parallels existing 20-inch) CIP No. W132	900 ft. of 24-inch
EastLake Pkwy – Olympic Pkwy. to Birch Rd. CIP No. W133	2,500 ft. or 20-inch
Birch Rd. - EastLake Pkwy. to La Media Rd.	5,700 ft. of 20-inch
La Media Rd. - Birch Rd. to Olympic Pkwy.	3,400 ft. of 20-inch
Deleted Main (980 Zone)	
Olympic Pkwy. - EastLake Pkwy. to La Media Rd. CIP No. W159	6,500 ft. of 16-inch


Exhibit 15
Water Plan
Legend
Existing Potable Water Facilities
Proposed Potable Water Facilities (711 Zone)
Proposed Potable Water Facilities (624 Zone)
Note:
1. All lines are 8" unless otherwise noted
2. Existing 624 Zone and 711 Zone pipelines to be abandoned are not shown for clarity.
Note: The SPA One potable water system is governed by the "Sub Area Master Plan of Potable and Recycled Water for Otay Ranch SPA One," April 6, 1998.
Village Five
Tract #96-04
Tract #97-02/98-04
Village One
Tract #96-04/96-04a
Village One West
Tract #98-06
Property Ownership Boundary
Point of Connection to Existing 20" (711) Main
Point of Connection to Existing 24" (624) Main
711/624 Pressure Reducing Station
711 P.S.
Proposed SR 125
North
Dimensions & Locations Shown are Approximate.

Supply Sources

Water supply for SPA One will be provided in Pressure Zone 711 from the new Central Area Pumping Station 711-1, adjacent to the Patzig Reservoir. A pressure reducing station in Olympic Parkway, just west of Paseo Ranchero, will be required for future 624 Zone development.

Pumping Facilities

Pumping facilities are sized to pump the maximum day demand with one standby pump equal in size to the largest pump. Adding the maximum day demand of SPA One gives a total 711 zone pumping demand of 11.3 mgd. Pumping Station 711-1 has an existing firm capacity of 17.3 mgd and space for an additional 4,000 gpm pump to bring the ultimate firm capacity to 23 mgd. Two additional pumps will be provided in future Pumping Station 711-2 (located in the same structure as future Pumping Station 980-2) to bring the buildout firm 711 Zone pumping capacity up to 33.8 mgd.

Since cumulative existing 711 pumping demand plus SPA One is less than the existing firm capacity, no potable water pumping station in the District will require modification to serve SPA One.

Operational Storage

The District's sizing criteria for operational storage is 1.3 times maximum day demand plus fire flow storage. The existing average day demand is 2.54 mgd and existing maximum day demand is 5.08 mgd. Existing fire demand is 1.50 MG calculated using 5,000 gpm times 300 minutes (5 hours).

Multiplying maximum demand day of 5.08 mgd times 1.3 and adding 1.5 MG fire flow gives an existing operational storage requirement of 8.1 MG. The existing 711-1 and 711-2 reservoirs can hold only 5.00 MG and do not have adequate capacity to serve existing customers in Pressure Zone 711. Hence, there is an existing storage deficit in the 711 Zone

and reservoir capacity must be increased to serve SPA One.

An additional 8.1 MG of operational storage will be needed in the 711 zone to serve the buildout water demand from existing buildings and SPA One. The Master Plan indicates two reservoirs to be built for the 711 system, the 10 MG 711-3 reservoir and the 6 MG 711-4. The Master Plan calls for construction of the 10 MG reservoir 711-3 in the first phase of water system improvements and at least 5.7 MG of additional storage will be needed to serve SPA One and existing demand.

Terminal Storage

Earlier District policy was to provide ten average days of storage capacity to provide for emergency storage to meet aqueduct shutdown conditions. Current District policy has been revised from ten average days to provide a maximum of five average days of terminal storage capacity within the system and utilize other options to make up the difference. Terminal storage for SPA One will be provided at the Central Area Reservoirs (624-1, 624-2, 624-3 and 613-1), which will provide suction supply for pumping to the 711 Zone. The total average annual day demand for SPA One is 1.74 mgd. A total volume of 8.7 MG is thus required to provide five average days of total storage capacity.

Transmission Mains

The offsite 711 transmission mains that will serve SPA One are identified in the Wilson Engineering report. Two existing mains cross Village 5 and will need to be rerouted. These mains should be rerouted so that they would lie primarily within street rights-of-way or along the eastern edge of Village 5.

Phasing

Replacement of the existing 18-inch 711 Zone main and the 16-inch 624 Zone main should be completed prior to the first development phase in Village Five. After these are

complete, water mains should be installed in conjunction with street grading operations, to avoid costly pavement removal and replacement whenever possible. Some streets may need to be graded earlier than required for building construction so that critical looping of the water system can be maintained. The first phase within Village Five requires construction of the 12-inch main that runs through the center of Village 5 as well as the 12-inch main in La Media Road connecting to the existing 16-inch main in Telegraph Canyon Road.

The 711-3 or 711-4 reservoir is needed concurrently with or before the construction of the first phase of SPA One, as are the transmission mains connecting the new 711 reservoir to the existing 20-inch main at Eastlake Parkway. Both SPA One project owners have entered into agreements with the Otay Water District to fund construction of the 711 Reservoir and Transmission Mains.

B. Recycled Water

The Otay Water District Master Plan identifies that SPA One would be served by the 700 and 950 recycled water pressure zones. The 700 Pressure Zone has not been developed as yet, since recycled water will not be available until the South Bay WRP is on line, scheduled for 2001. In the interim, the existing 950 Recycled Pressure Zone will be the source of recycled water for SPA One. A pressure reducing valve will be provided between a new 16-inch main in Telegraph Canyon Road and a new 16-inch main serving SPA One.

Exhibit 16
Recycled Water Plan
Legend
Potential Recycled Water Use Area
Proposed Facilities
Existing Facilities
Pressure Reducing Station
CIP071
Capital Improvement Project Number
Note: The SPA One recycled water system is governed by the "Sub Area Master Plan of Potable and Recycled Water for Otay Ranch SPA One," April 6, 1998.
Property Ownership Boundary
Village One Tract #96-04/96-04a
Tract #97-02/98-04
Village Five Tract #96-04
Village One West Tract #98-06
Proposed SR 125
CWA PIPELINE #2
Tank 2 2.2 MG (Future)
Blend Water P.S. (Future)
To Future 680 Zone Reservoir
Temp. Pressure Reducing Station
Point of Connection to Existing 16" Reclaimed Main
Pressure Reducing Station
North
0' 400' 800' 1200'
Dimensions & Locations Shown are Approximate.

Table 36
RECYCLED WATER TRANSMISSION MAINS SERVING SPA ONE
(ALL ARE 700 ZONE UNLESS SPECIFIED OTHERWISE)

Existing Recycled Water Mains	**Size**
Otay Lakes Rd. - EastLake Pkwy. to SR-125 (950 Zone)	16-inch
Otay Lakes Rd. - 600 ft. west of Rutgers Ave. to 600 ft. east of Apache Dr.	16-inch
New Recycled Water Mains	
Otay Lakes Rd. - Existing 16-inch 950 main and new pressure reducing station to existing 16-inch main 600 ft. west of Rutgers Ave. CIP No. R009	4,000 ft. of 16-inch
Telegraph Cyn. Rd - Existing 16-inch at Apache Dr. to Paseo Ranchero CIP No. 071	6,000 ft. of 16-inch
Paseo Ranchero - Telegraph Cyn. Rd. to Olympic Pkwy. CIP No. R027	3,800 ft. of 12-inch
Olympic Pkwy. - La Media Rd. to SR-125 ROW Part of CIP No. R008	5,200 ft. of 18-inch
La Media Rd. - Olympic Pkwy. to Telegraph Cyn. Rd. CIP No. R007	5,500 ft. of 16-inch
Olympic Pkwy. – west of Paseo Ranchero CIP No. R024	3,000 ft. of 16-inch
Future Recycled Water Mains	
Olympic Pkwy. - SR-125 ROW to Tank 2 Part of CIP No. R008	6,000 ft. of 18-inch

3.8.8 Financing Water Facilities

The financing and construction of potable water facilities is provided by two methods:

Capacity Fees:

Otay Water District's Capital Improvement Program (CIP) wherein the District facilitates design and construction of facilities and collects an appropriate share of the cost from developers through collection of capacity fees from water meter purchases. Capital Improvement Projects typically include supply sources, pumping facilities, operational storage, terminal storage, transmission mains and rerouting of existing mains. Specific CIP projects are identified in the SAMP for SPA One and are included herein for information purposes.

CIP projects are paid for by capacity fees collected on the sale of water meters after building permit issuance.

The Otay Water District may use bond debt financing from ID 27 to assist in the financing of the District's CIP program.

SPA One is currently within the boundaries of Improvement District (ID) 10 and 27.

Exaction:

Wherein the developer designs and constructs facilities which serve his development only. When complete, the facilities are dedicated to the District.

Potable Water Improvement Costs

Table 38 contains the costs for CIP facilities such as reservoirs and approximately 30,000 feet of transmission mains required to serve SPA One. The total capital cost for potable water facilities is $8,858,000, of which SPA One will bear a portion. In accordance with District Policy No. 26,

the District will provide reimbursement for construction and design costs associated with development of these improvements

Table 37
REGIONAL POTABLE WATER FACILITY COSTS

Item	CIP No.	Size	Cost
Operational Storage			
711-3 Reservoir	171	10 MG	$4,508,000
New Transmission Mains			
From 711-3 or 711-4 Reservoir to Olympic Pkwy.	W130	800 ft. of 42-inch	280,000
Olympic Pkwy. - 42x36 tee to EastLake Pkwy.	W129	2,000 ft. of 36-inch	536,000
EastLake Pkwy - Olympic Pkwy. to existing 20-inch main	W131	3,000 ft. of 36-inch	804,000
Olympic Pkwy. - La Media Rd. to Paseo Ranchero	W078	5,700 ft. of 20-inch	678,000
Paseo Ranchero - Olympic Pkwy. to E. Palomar Rd.	W076	1,900 ft. of 20-inch	226,000
Paseo Ranchero - E. Palomar St. to Telegraph Cyn. Rd.	W075	1,900 ft. of 20-inch	226,000
E. Palomar St. – west of Paseo Ranchero	W069	3,000 ft. of 16-inch	297,000
Olympic Pkwy. – west of Paseo Ranchero	W136	3,000 ft. of 16-inch	297,000
Replacement Transmission Mains			
From Patzig Reservoir 624-1 to existing 20-inch main @ Telegraph Cyn. Rd.	030	3,800 ft. of 24-inch	562,000
From 711-1 Pumping Station to Telegraph Cyn. Rd.	W152	3,000 ft. of 24-inch	444,000
Total		**20,100 ft.**	**$8,858,000**

Table 38
REGIONAL RECYCLED WATER FACILITY COSTS

Item	CIP No.	Size	Cost
New Recycled Water Transmission Mains			
Otay Lakes Rd. - Existing 16-inch 950 main and new pressure reducing station to existing 16-inch main	R009	4,000 ft. of 16-inch	$ 396,000
Telegraph Cyn. Rd. - Existing 16-inch at Apache Dr. to Paseo Ranchero	071	6,000 ft. of 16-inch	594,000
Paseo Ranchero - Telegraph Cyn. Rd. to Olympic Pkwy.	R027	3,800 ft. of 12-inch	285,000
Olympic Pkwy. - Paseo Ranchero to La Media Rd.	R021	5,700 ft. of 18-inch	644,000
Olympic Pkwy. -La Media Rd. to SR-125 ROW	R008	5,200 ft. of 18-inch	588,000
Olympic Pkwy. – west of Paseo Ranchero	R024	3,000 ft. of 16-inch	297,000
La Media Rd. - Olympic Pkwy. to Telegraph Cyn. Rd.	R007	5,500 ft. of 16-inch	525,000
See Table 33 for additional lines			
Pressure Reducing Station			
Pressure Reducing Station connecting existing 16-inch 950 recycled water main to new 12-inch 700 main in Telegraph Cyn. Rd.	Part of R008		20,000
Total		**33,200 ft.**	**$3,347,000**

Recycled Water Improvement Costs

Table 39 contains the costs for CIP facilities such as approximately 33,000 feet of transmission mains required to provide recycled water to SPA One using water from the 950 Pressure Zone. The total capital cost is approximately $3,347,000, of which SPA One will bear a portion. The District will provide reimbursement for construction and design costs associated with development of these improvements.

3.8.9 Threshold Compliance

The *Otay Water District Water Resource Master Plan* and SAMP identify water facilities to be constructed to provide the appropriate level of water service to meet the criteria established within the plans. As such, the facilities identified in the plans are required of the development to be constructed as a part of the SPA One project.

Developer shall request and deliver to the City a service

availability letter from the Otay Water District prior to each final map.

Provide water and recycled water improvements in accordance with the report entitled *Sub Area Master Plan for Potable and Recycled Water for Otay Ranch SPA 1,* prepared by Wilson Engineering, dated April 6, 1998, and as subsequently amended by the Otay Water District.

3.9 Sewer

3.9.1 Threshold Standard

1. Sewage flows and volumes shall not exceed City Engineering Standards.

2. The City shall annually provide the San Diego Metropolitan Sewer Authority with a 12-18 month development forecast and request confirmation that the projection is within the City's purchased capacity rights and an evaluation of their ability to accommodate the forecast and continuing growth. As an alternative, the City Engineering Department staff shall gather the necessary data. The information provided to the GMOC shall include the following:

    a) Amount of current capacity now used or committed.
    b) Ability of affected facilities to absorb forecast growth.
    c) Evaluation of funding and site availability for projected new facilities.
    d) Other relevant information.

3.9.2 Service Analysis

The City of Chula Vista currently purchases capacity for wastewater treatment through the City of San Diego. Chula Vista oversees the construction, maintenance and the operation of the sewer trunk line system. The City Engineer is responsible for reviewing proposed developments and ensuring that the necessary sewer facilities are provided with each development project.

The Sewer Threshold Standard was developed to maintain healthful, sanitary sewer collection and disposal systems for the City of Chula Vista. Individual projects are required to provide necessary improvements consistent with the *City of*

Chula Vista Wastewater Master Plan dated July, 1989 and shall comply with all City Engineering standards.

Information regarding the existing sewer facilities was obtained from the *Telegraph Canyon Sewer Basin Improvement and Financing Plan* (TC Basin Plan) dated July 31, 1992; the *Telegraph Canyon Sewer Basin Improvement and Financing Plan Amendment Incorporating Pumped Flows* (TC Pumped Flows Plan) dated June 9, 1993 prepared for the City of Chula Vista by Willdan Associates; the *Overview of Sewer Service for Specific Planning Area 1 of the Otay Ranch Project* prepared by Wilson Engineering and revised June 4, 1996; and the *Overview of Sewer Service for Villages One West and Two West of the Otay Ranch Project* prepared by Wilson Engineering dated March 1998. *The Subarea Master Plan for Potable and Recycled Water for Otay Ranch SPA 1* dated April 6, 1998 was also prepared by Wilson Engineering.

Sewerage facilities and services are also addressed in the *Facility Implementation Plan* dated October 28, 1993, as part of the GDP and in the *Otay Ranch SPA One.*

3.9.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Identify phased demands for all sewer trunk lines in conformance with the street improvements and in coordination with the construction of water facilities.
2. Identify location of facilities for on-site and off-site improvements, including reclaimed water facilities in conformance with the *Overview of Sewer Service for Specific Planning Area 1 of the Otay Ranch Project* revised June 4, 1996 by Wilson Engineering; the *Subarea Master Plan for Potable and Recycled Water for Otay SPA I* dated April 1998; and the *Overview of Sewer Service for Villages One West and Two West of the Otay*

Ranch Project dated March 1998 including recycled water has been prepared by Wilson Engineering.
3. Provide cost estimates for all facilities and proposed financing responsibilities.
4. Identify financing methods.

3.9.4 Existing Conditions

The development of Otay Ranch SPA One will impact two drainage basins: Telegraph Canyon Drainage Basin and Poggi Canyon Drainage Basin. The City of Chula Vista has sewer facilities in each of these basins to serve existing development.

3.9.5 Adequacy Analysis

The wastewater master plan evaluates sewer facilities from two aspects. The current and future adequacy of trunk sewers and the future wastewater treatment facilities.

Wastewater Treatment

Current Chula Vista average daily wastewater flow is approximately 11.0 million gallons per day (mgd). The City's allocation is 19.2 mgd resulting in a capacity surplus of 8.2 mgd.

For design purposes, a factor of 280 gpd per EDU from the City's *Subdivision Manual* is used. Based on measured flows in the Telegraph Canyon Basin, a factor of 250 gpd per Equivalent Dwelling Unit (EDU) was used in the Telegraph Canyon Sewer Basin Fee Study. The sewage generation factors used in this report are given below.

1.	Residential SFD	250 gallons per day/unit
2.	Residential MF	187 gallons per day/unit
3.	Commercial	2,500 gallons per day/acre
4.	Industrial	2,500 gallons per day/acre
5.	Elementary School	9,000 gallons per day/site[31]
6.	Parks	500 gallons per day/acre

The Development Phasing Forecast Summary, as shown on Table 39 lists 8,680 residential dwelling units, 161.4 acres of industrial, and 60.2 acres of commercial in the Tentative and Final Map approval categories. Using the per day wastewater figures for each land use, equates a total of 2,724,000 gallons per day of wastewater generation associated with Final and Tentative Maps, reducing the capacity surplus from 8.2 to 5.48 mgd. This surplus capacity can accommodate approximately 21,900 DUs.

Table 39

AVAILABLE SURPLUS SEWER CAPACITY

Land Use	DU or Acres	Total Daily Gallons
Residential	8,680 DU	2,170,000
Commercial	60.2 AC	150,500
Industrial	161.4 AC	403,500
	Total	**2,724,000**

Until recently, the Federal Clean Water Act required all wastewater dischargers to upgrade their sewerage system facilities to the secondary treatment level. However, the U.S. Environmental Protection Agency (EPA) has tentatively decided to grant a variance from secondary treatment requirements to the City of San Diego for discharge to waters of the Pacific Ocean through the Point Loma Ocean Outfall Extension. The outfall discharges beyond the 3-mile State waters limit to federal waters. The EPA and the State of California jointly issue and administer discharges that are granted variances from secondary treatment requirements.

31 For elementary schools, the generation amount was based on a flow of 15 gallons/day/student and a student body size of 600. Changes in the projected student body size would alter the factor.

To assure compliance with the requirements of the Ocean Pollution Reduction Act, the City of San Diego has initiated a program of phased Metro System improvements. The following table identifies the City's proposed schedule for these improvements.

Table 40
METRO SYSTEM IMPROVEMENTS

Improvement Phase	Improvement Description	Proposed Schedule
Phase 1	Increased rated treatment capacity at Point Loma Treatment Plant	1996
Phase 1	Digester rehabilitation at treatment plant	1997
Phase 2	Complete construction of North City Water Reclamation Plant and the North City Regional reclaimed water conveyance system, and initiate water reclamation operations.	1997
Phase 3	Complete construction of Northern Sludge Processing Facility and initiate operation of regional solids handling facilities.	Before end of 5-year NPDES permit
Phase 3	Initiate secondary treatment for additional flows at reclamation plant and discharge treated water at Point Loma.	Before end of 5-year NPDES permit

The City of Chula Vista authorized a study of wastewater treatment and disposal alternatives as it affects Chula Vista. As a result of this study, Chula Vista will determine whether the Clean Water Program's alternative, or some other option, is in Chula Vista's best interest for providing the required treatment upgrade and/or additional capacity required for the total buildout Residential Dwelling Units plus Industrial and Commercial acres.

Trunk Sewers

The design capacity is a standard for peak flows based on the sewer line's size. The design capacity flow rate is low compared to actual sewer pipe capacities. But evaluating the

design capacity as opposed to the actual flow capacity, establishes an early warning system that will identify where future improvements may be necessary. Current peak flows exceed existing design capacities on sections of pipes in the Telegraph Canyon Basin and the Poggi Canyon Basin.

The construction of new sewer trunk lines must be phased with the construction of streets. The wastewater treatment requirements and sewer trunk line system are currently meeting the threshold standard.

Otay Ranch SPA One Sewage Flows

Based on the sewage generation factors presented herein and the proposed development plan for SPA One, the total projected average sewage flow from SPA One is 1.58 million gallons per day (MGD). Of this amount, 0.96 MGD naturally drains to the Telegraph Canyon Basin and the remaining 0.62 MGD naturally drains to the Poggi Canyon Basin.

Offsite Sewage Flows

Information regarding the existing sewer facilities was obtained from the Telegraph Canyon Sewer Basin Improvement and Financing Plan (TC Basin Plan) dated July 31, 1992, and the Telegraph Canyon Sewer Basin Improvement and Financing Plan Amendment Incorporating Pumped Flows (TC Pumped Flows Plan) dated June 9, 1993 prepared for the City of Chula Vista by Willdan Associates.

The sewage generation factors used to project average sewage flows from SPA One areas within Poggi Canyon Drainage Basin are listed below:

1. Residential SFD	280 gallons per day/unit
2. Residential MF	210 gallons per day/unit
3. Commercial	2,500 gallons per day/acre
4. Industrial	2,500 gallons per day/acre

5. Elementary School	9,000 gallons per day/site
6. Parks	500 gallons per day/acre

The existing Poggi Canyon Interceptor begins in Olympic Parkway approximately 1200 feet from the western boundary of the proposed Sunbow II project. The interceptor is 18 inches at this location and extends southwest increasing to 21 inches prior to entering Oleander Avenue and decreasing back to an 8-inch diameter. The interceptor continues southwest, under I-805 and south in Melrose Avenue crossing Main Street and then connects to the Date-Faivre Line which ultimately connects to the Metro Sewer Interceptor.

3.9.6 Recommended Sewerage Facilities

Telegraph Canyon Basin

Based on the Willdan Associates studies for flows in the Telegraph Canyon Basin, the City of Chula Vista established a fee to be paid by all new development to fund improvements required to provide service for ultimate projected gravity flows and pumped flows in the basin. Prior to connecting to the system, the portion of SPA One within the basin will be subject to the payment of the fees or be required to install facilities to increase capacity in the system.

The SPA One plan proposes to have 3,842 EDUs contribute sewage to the interceptor where the 1996 Telegraph Canyon Basin Plan projected 4,406 EDUs contributing flows to the system. Since the SPA One flows will be less than these projected flows, SPA One will not impact the interceptor to any greater extent than the study anticipated. Since the number of EDUs for the SPA One plan is less than the number of EDUs projected in the 1992 report, the recommended improvements and phasing schedule is adequate to serve development in SPA One. However, further analysis of the Telegraph Canyon Interceptor should be performed to determine if some of the facilities

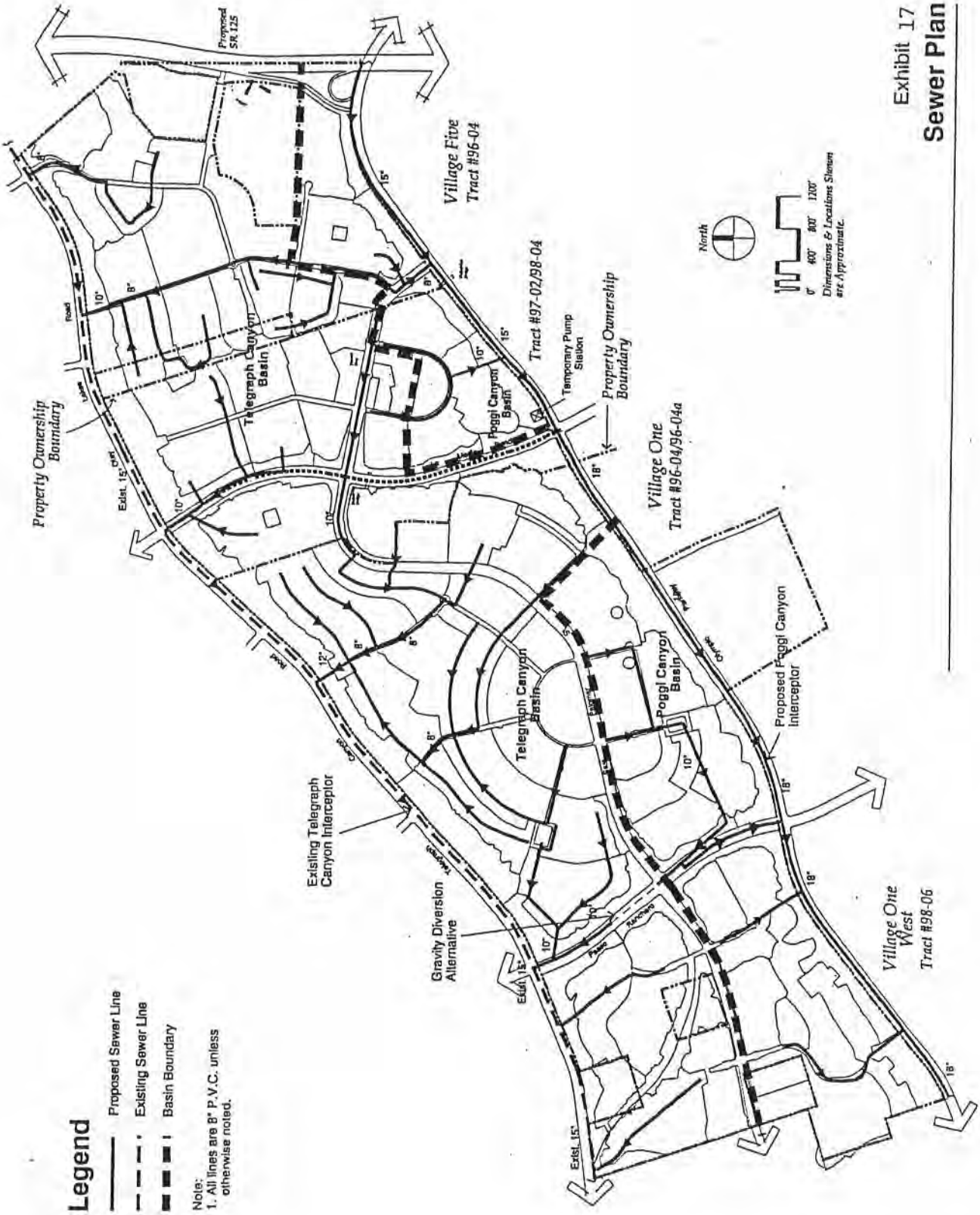
recommended in the 1992 report could be started at a different time or deleted due to the reduction in the number of units flowing from SPA One. In addition, flow monitoring should be conducted to determine when sections of the interceptor should actually be replaced.

Improvements to the interceptor will be made by the developer who creates an impact requiring the interceptor capacity to be upgraded. Upgrades will be constructed on an as needed basis as determined by the City.

Poggi Canyon Basin

The Wilson Engineering reports entitled *Overview of Sewer Service for Specific Planning Area 1 of the Otay Ranch Project* revised June 4, 1996 and *Overview of Sewer Service for Villages One West and Two West of the Otay Ranch Project* dated March 1998, identify the sewage flow projections from future projects in the Poggi Canyon Basin. According to the report, the buildout flows projected from the Poggi Canyon Basin are preliminary and may change as the general development plan changes.

Improvements will be required to the Poggi Canyon Interceptor and Date-Faivre Interceptor to serve future development in the basin. These improvements include upgrading portions of the existing interceptor as well as extending the interceptor to serve future developments in the eastern portion of the basin.


Exhibit 17
Sewer Plan
Proposed SR 125
Village Five
Tract #96-04
Tract #97-02/98-04
Village One
Tract #96-04/96-04a
Village One West
Tract #98-06
Property Ownership Boundary
Telegraph Canyon Basin
Poggi Canyon Basin
Temporary Pump Station
Proposed Poggi Canyon Interceptor
Existing Telegraph Canyon Interceptor
Gravity Diversion Alternative
North
0' 600' 900' 1200'
Dimensions & Locations Shown are Approximate.
Legend
Proposed Sewer Line
Existing Sewer Line
Basin Boundary
Note:
1. All lines are 8" P.V.C. unless otherwise noted.

The July 31, 1997 Poggi Canyon Basin Gravity Sewer Basin Plan was prepared for the City of Chula Vista by Wilson Engineering to establish future improvements required to the Poggi Canyon Interceptor and to establish a fee for funding these improvements. City of Chula Vista Ordinance Number 2716 established a fee of $400 per EDU to be paid by future development within the Poggi Canyon Basin.

3.9.7 Financing Sewerage Facilities

Telegraph Canyon Basin

Prior to connecting to the system, the portion of SPA One that is within the Telegraph Canyon Basin either will be subject to the fees established by the City of Chula Vista or be required to install facilities as determined by the City. These fees will be collected when building permits are issued. It should be noted that the fees are subject to change due to reevaluation of the Telegraph Canyon Basin Plan.

Table 41
TELEGRAPH CANYON BASIN IMPACT FEES FOR SPA ONE

Land Use	Amount	Fee	Cost
Single Family Residential	2,823 units	$184/unit	$ 519,432
Multi-Family Residential	1,013 units	$138/unit	139,794
Commercial	2.8 acres	$1,840/acre	5,152
CPF	9.5 acres	$1,840/acre	17,480
School	2 sites	$6,624/site	13,248
Parks	32.3 acres	$368/acre	11,886
		Total	**$ 706,992**

Table 42
TELEGRAPH CANYON BASIN IMPACT FEES BY PHASE

	Dwelling Units		Acres				
	SFD	MFD	Com'l	CPF	School	Park	Total Fees
Village 1							
Blue	408	160	-	-	1.0	12.4	108,339
Green	466	168				2.1	109,701
Brown	83	227				7.0	49,174
Purple							-
Village 1E/5W							-
Grey	552	458	2.8	4.8	1.0	7.0	187,956
Orange	109						20,056
Village 5							-
Pink	236					1.3	43,902
Yellow	561			4.7		2.5	112,792
Red							-
Village 1W							-
Silver	408						75,072
Gold							-
Copper							-
TOTAL	**2,823**	**1,013**	**2.8**	**9.5**	**2.0**	**32.3**	**$ 706,992**

Poggi Canyon Basin

Prior to connection to the system, the portion of SPA One that is within the Poggi Canyon Basin either will be subject to the fee established by the City of Chula Vista or will be required to install facilities as determined by the City. These fees will be collected when building permits are issued. It should be noted that the fees are subject to change due to reevaluation of the Poggi Canyon Basin Plan

Table 43
POGGI CANYON BASIN IMPACT FEES FOR SPA ONE

Land Use	Amount	Fee	Cost
Single Family Residential	1,217 units	$400/unit	$ 486,800
Multi-Family Residential	1,068 units	$300/unit	320,400
Commercial	8.1 acres	$3,572/acre	28,933
CPF	17.6 acres	$3,572/acre	62,867
School	1 sites	$12,856/site	12,856
Parks	13.2 acres	$716/acre	9,451
		Total	**$879,872**

The developer of SPA One intends to sewer wastewater from the Brown, Orange and Purple Phases within the Poggi Canyon Basin to the Telegraph Basin by one of the following alternatives: Alternative One would be to extend the existing Poggi Canyon Interceptor easterly through SPA One before the first EDU is occupied within the Poggi Canyon Basin. The second alternative would be to enter into an agreement with the City of Chula Vista to pump flows into the Telegraph Canyon Interceptor on an interim basis that would require payment to the City of additional fees.

Table 44
POGGI CANYON BASIN IMPACT FEES BY PHASE

	SF	MF	Commercial	Industrial	CPF	School	Park	Fees
Village 1								
Purple	270	867	8.1		6.0		0.8	$ 419,038
Village 1E/5W								
Orange	164	201					6.7	130,697
Village 5								
Red	301						0.6	120,830
Village 1W								-
Gold	482					1.0	5.1	209,308
	1,217	***1,068***	***8.1***			***1.0***	***13.2***	***$ 879,872***

The City of Chula Vista *Sewage Pump Station Financing Policy* (No. 570-03) adopted by Resolution No. 17491 effective May 17, 1994, established the following policy and procedure relative to the construction of sewage pump stations and to the financing of their associated costs for maintenance, operation, repair, replacement, retrofit and rehabilitation (generally M & O costs).

A. The construction of sewage pump stations is to be discouraged and shall be approved only in accordance with the provisions of the policy.

B. The following actions shall be taken before (1) approving a Tentative Subdivision Map or a Preliminary Parcel Map for a project dependent upon the construction of a sewage pump station for the provision of sewer service or (2) first approval (Design Review or similar action) for a project not requiring approval of a Tentative Map or Preliminary Parcel Map:

1. The developer shall prepare and provide the City with a study analyzing the feasibility of constructing a gravity sewer line versus installing a pump station. The study shall include a comparison of the cost of constructing a gravity sewer line to that of

installing, maintaining and operating the pump station. The most cost effective and technically feasible alternative, as determined by the Director of Public Works (Director), will be included as part of the required subdivision or project improvements.

2. In the event that the construction of a gravity sewer is not possible because of topographic or jurisdictional constraints, the above study may be limited to provision of sufficient evidence to demonstrate the existence of the constraint and an estimate of the cost of maintaining and operating the proposed pump station. If the decision to build a pump station is predicated upon an economic consideration, then the full study as outlined above will be required.

3. The Director shall review the above study and if the need for a sewage pump station is not indicated by the results of the study, said sewage pump station and the Tentative Map, Preliminary Map or other such dependent project shall not be approved subject to applicant appeal to the City Council.

4. Where the review by the Director indicates that connection to a gravity sewer is cost effective and feasible a pump station dependent development or project shall be processed only with advance approval of the City Council of the use of a sewage pump station.

5. In the event that the need for a sewage pump station is discovered after approval of a Tentative Subdivision Map or a Preliminary Parcel Map or after an initial City approval (such as Design Review) of a project not requiring such a map said study shall be

performed prior to any further review of applications for approval. Where a Tentative or Preliminary Map is required, such a discovery shall be considered to constitute a significant change in the project and require consideration of a Revised Tentative or Preliminary Map.

In the instance of a project not requiring a Final Map or a Parcel Map said study shall be required prior to the issuance of any building permit.

3.9.8 Threshold Compliance

Facilities to accommodate sewer flows have been identified. The City will generally not allow the design capacity of trunk sewers to be exceeded. If flows large enough to surpass the design capacity of receiving sewers are anticipated as the result of new development, the City could require the construction of relief lines. In certain cases, the City will allow design capacity but not hydraulic capacity of sewer lines to be exceeded at peak flow before relief facilities are required. For example, in the Telegraph Canyon Basin Plan 15-inch lines were allowed to have 85% flows instead of the 75% design capacity.

The construction of new sewer trunk lines must be phased with the construction of streets. As such, the facilities identified in this plan shall be required of the developer either as constructed facilities or through the payment of fees.

Pay fees in accordance with the City of Chula Vista ordinance or provide trunk sewer improvements to both the Telegraph Canyon and Poggi Canyon trunk sewers as indicated in the report entitled *Overview of Sewer Service for SPA One at the Otay Ranch* (June 4, 1996) and *Overview of Sewer Service of Villages One West and Two West of the Otay Ranch Project* (March 1998) prepared by Wilson Engineering, as amended by the applicant and approved by the Director of Public Works to reflect the approved SPA

One Plan, and as subsequently amended by the Director of Public Works.

3.10 Drainage

3.10.1 Threshold Standard

1. Storm water flows and volumes shall not exceed City Engineering Standards.

2. The GMOC shall annually review the performance of the City's storm drain system to determine its ability to meet the City's goals and objectives.

3.10.2 Service Analysis

The City of Chula Vista, through its Public Works Department, is responsible for ensuring that safe and efficient storm water drainage systems are provided concurrent with development in order to protect the residents and property within the city. City staff shall review individual projects to ensure that improvements are provided which are consistent with the drainage master plan(s) and that the project complies with all City engineering drainage standards.

Drainage facilities are planned for in the *City of Chula Vista Public Facilities Plan Flood Control Summary Report*, dated March 1989 (Phase II)".

SPA One drainage improvements in both Telegraph Canyon and Poggi Canyon are identified in the *Master Drainage Plan for Otay Ranch Villages One and Five* prepared by Hunsaker & Associates, dated June 26, 1995; the *Addendum to Master Drainage Plan for Otay Ranch SPA One Villages I and V* prepared by Hunsaker & Associates dated April 14, 1998; and the *Master Drainage Study* prepared by Rick Engineering dated 1998.

Drainage facilities and services are also addressed in the *Facility Implementation Plan* dated October 28, 1993, as part of the GDP and in the *Otay Ranch SPA One*.

3.10.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Identify phased demands.
2. Identify locations of facilities for on-site and off-site improvements.
3. Provide cost estimates.
4. Identify financing methods.

3.10.4 Existing Conditions

The *City of Chula Vista Public Facilities Plan, Flood Control Summary Report*, March 1989, shows fifteen major drainage basins in Chula Vista. These drainage basin boundaries were determined by existing topography, drainage conditions and land uses. Four of these are essentially developed and not expected to have significant changes in runoff. Eleven drainage basins are east of Interstate 805 with one of the basins, Long Canyon, mostly developed to the predicted densities in Scenario 4 of the general plan. Only the remaining ten basins will experience major development and the subsequent changes in drainage conditions.

The City's Drainage Master Plan analyzed current and future requirements for drainage facilities. The report details three alternative solutions for drainage in each basin. Because drainage facilities are directly related to the type and location of future development, it is not possible to determine which specific improvements will be required until the development project is presented and reviewed by staff.

3.10.5 Proposed Facilities

Otay Ranch SPA One is topographically defined by a ridgeline that runs in an east-west direction, dividing the site into two drainage basins. These basins are the Telegraph and Poggi Canyon Basins.

Conceptual grading plans and cross sections of the proposed detention basins are contained in the preliminary hydrology analyses within the Master Drainage Plan prepared by Hunsaker & Associates. The Telegraph Canyon Channel presently has been improved to City of Chula Vista standards within the project, while the Poggi Canyon Channel presently remains in its natural, unimproved state.

Detention basins are planned in both Telegraph Canyon and Poggi Canyon. These detention basins will control the amount of water leaving SPA One and reduce the peak flows to predevelopment levels as required by the City of Chula Vista.

Telegraph Canyon Basin

Preliminary studies indicate that it will be necessary to construct storm drain systems within the southerly extensions of Otay Lakes Road (La Media) and Paseo Ranchero to convey runoff to the existing Telegraph Canyon channel. The preliminary hydrology analysis contained in the Master Drainage Plans indicate that constructing a double 7 foot wide by 6 foot deep box culvert under the future La Media Road will reduce the post-development peak flows at the westerly project boundary. Since the project is reducing peak runoff to pre-development conditions, the development of SPA One will not increase the peak 100-year runoff amount downstream of the facility.

DRAINAGE

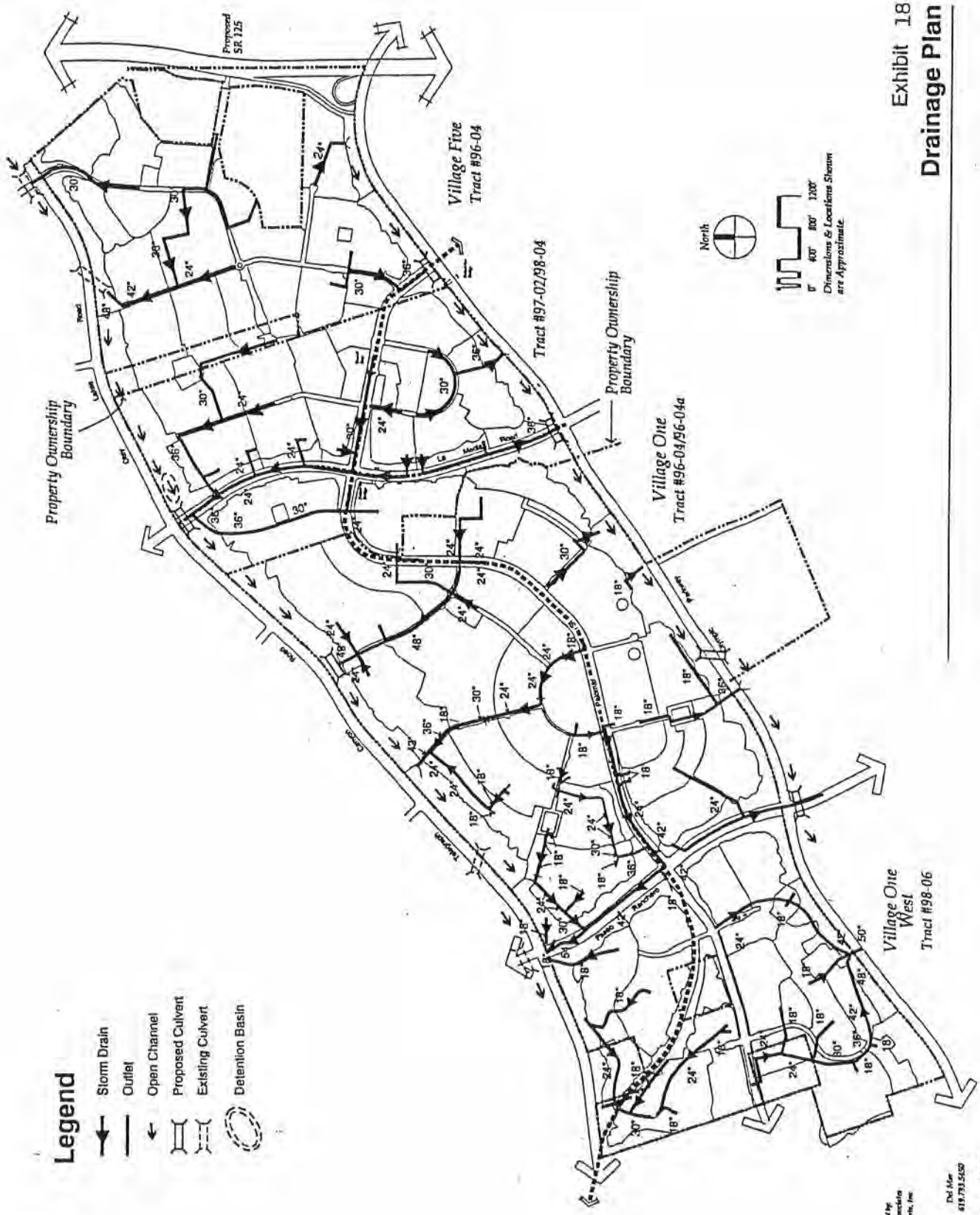


Exhibit 18
Drainage Plan

Otay Ranch
150
February 16, 1999

Poggi Canyon Basin

SPA One development provides an earth lined channel system paralleling Olympic Parkway. This channel requires culvert undercrossings at La Media Road, Olympic Parkway, between La Media and Paseo Ranchero, and at Paseo Ranchero. There is a proposed detention basin at the westerly edge of the project site which will reduce post-development conditions and will therefore not adversely impact the downstream drainage system.

Urban Runoff Facilities

Otay Ranch SPA One does not drain into the Otay Reservoir and thus there is no requirement for facilities to protect the reservoir from SPA One runoff.

3.10.6 Financing Drainage Facilities

On-Site Facilities

City policy requires that all master planned developments provide for the conveyance of storm waters throughout the project to City engineering standards. As such, Otay Ranch SPA One will be required to construct those facilities identified in Section 3.10 through the subdivision exaction process.

Off-Site Facilities

Telegraph Canyon Basin

Approximately 650 acres of SPA One under the developed condition drains into the Telegraph Canyon Basin. In accordance with Chula Vista Ordinance 2384, SPA One is required to pay the Telegraph Canyon Drainage Fee of

$4,579 per gross benefit acre. The fee is subject to an annual adjustment based upon the Engineering News Record (ENR) Construction Cost Index. For the 535 acres, the fee is $2,976,350. The fee is payable as defined by Ordinance 2384.

Poggi Canyon Basin

The proposed detention basin at the westerly edge of the project site, south of Olympic Parkway, will be constructed by the developer as a subdivision exaction in accordance with City Engineering Standards.

3.10.7 Threshold Compliance

Otay Ranch SPA One shall be responsible for the conveyance of storm water flows in accordance with City Engineering Standards. The City Engineering Division shall review all plans to ensure compliance with City Engineering Standards.

Drainage improvements in both Telegraph Canyon and Poggi Canyon shall be provided in accordance with the Addendum to *Master Drainage Plan for Otay Ranch SPA One, Villages One and Five* (April 1998) and *Master Drainage Plan* (1996) prepared by Hunsaker & Associates dated and the *Master Drainage Study* (1998) prepared by Rick Engineering as amended by the applicant and approved by the Director of Public Works.

3.11 Air Quality

3.11.1 Threshold Standard

The City shall annually provide the San Diego Air Pollution Control District (APCD) with a 12-18 month development forecast and request an evaluation of its impact on current and future air quality management programs, along with recent air quality data. The growth forecast and APCD response letters shall be provided to the GMOC for inclusion in its annual review.

3.11.2 Service Analysis

Air Quality Improvement Plan

An Air Quality Improvement Plan is required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDUs of water demand or greater). This plan is required at the Sectional Planning Area (SPA) Plan level, or equivalent for projects which are not processed through a Planned Community Zone.

The Air Pollution Control District is updating the Air Quality Maintenance Program to comply with the California Clean Air Act. There is no local Master Plan for Air Quality.

The *Air Quality Improvement Plan Otay Ranch SPA One* dated June 19, 1995 was prepared by Jay Kniep Land Planning. A subsequent report entitled *Air Quality Impact Analysis Otay Ranch SPA One/GDP Amendment* dated June 19, 1998 was prepared by Giroux & Associates for the Village One West and Two West areas.

3.11.3 Threshold Compliance

The City continues to provide a development forecast to the APCD in conformance with the threshold standard. A separate Air Quality Improvement Plan is provided as part of the SPA document.

3.12 Fiscal

3.12.1 Threshold Standard

1. The GMOC shall be provided with an annual fiscal impact report which provides an evaluation of the impacts of growth on the City, both in terms of operations and capital improvements. This report should evaluate actual growth over the previous 12-month period, as well as projected growth over the next 12-18 month period, and 3-5 year period.

2. The GMOC shall be provided with an annual "economic monitoring report" which provides an analysis of economic development activity and indicators over the next previous 12-month period, as well as projected growth over the next 12-18 month period, and 3-5 year period.

3.12.2 Facility Master Plan

There is no existing Master Plan for fiscal issues. However, an economic base study and a long range fiscal impact study was prepared by P&D Technologies as part of the Chula Vista General Plan.

3.12.3 Project Processing Requirements

Sectional Planning Area Plan/Public Facilities Finance Plans

1. Prepare a phased fiscal/economic report dealing with revenue vs. expenditures including maintenance and operations.

3.12.4 Threshold Compliance

An analysis of the fiscal impacts the development of Otay Ranch SPA One will have on the operation and maintenance budgets of the City of Chula Vista was prepared by the firm of Ralph Andersen & Associates entitled *Addendum Fiscal Impact Analysis of the Chula Vista Sphere of Influence Update* dated March 2, 1995. A summary of the analysis is included in the following pages.

The results of the analysis will be included in the next annual fiscal and economic report prepared for the City's Growth Management Oversight Commission.

An annual fiscal review funded by the applicant shall be conducted by the City or under the City's supervision to evaluate the fiscal impact of the project. As part of the annual review, the assumptions used in the Fiscal Impact for New Development (FIND) Model shall be evaluated, including (a) land use types, intensity, density, and timing; (b) economic conditions; (c) market conditions; (d) demographic factors affecting cost and revenue estimates; (e) allocation of local, regional, state, and federal funds; and (f) any other factors deemed relevant by the City Manager.

The annual fiscal review will determine the need for transfers from an applicant reserve fund in order to assure that the GDP/SRP policies are fulfilled, particularly the policy on page 264 of the GDP/SRP that all City services provided to the incorporated portions of Otay Ranch, including direct and indirect costs, and including capital and operating costs, shall be covered by project revenues and project exactions.

A reserve fund ordinance was adopted by the Chula Vista City Council, requiring the payment of reserve fund fees as a condition of building permit issuance. The reserve fund program shall finance the cost of the annual review and updated fiscal impact analysis, and shall be the source for any required contribution by the applicant that is necessary to offset any annual operating deficit incurred by the City.

3.13 Civic Center

3.13.1 Threshold Standard

There is no adopted threshold standard for this facility. The facility information is being provided in this report to aid the City in establishing operational benchmarks which will determine construction phasing of the Civic Center.

3.13.2 Service Analysis

Although the existing Civic Center successfully accommodated city administration offices prior to the mid-1980s population growth, increase in City staff to meet new demands of growth has caused increasing congestion problems. Most staff in the Public Services Building experience space shortages, lack of privacy and storage, and frequent noise distractions. This was reported in a survey which is included in the Civic Center Master Plan dated May 8, 1989. Site Alternative Three "The Suburban Scheme" was selected from the master plan at a City Council conference on June 22, 1989.

Civic Center facilities and services are also addressed in the *Facility Implementation Plan* dated October 28, 1993, as part of the GDP and in the *Otay Ranch SPA One.*

3.13.3 Existing Conditions

Civic Facilities Inventory

Existing Facilities

Civic Center	111,940 square feet
Previous County Health Center	3,120 square feet
Future Public Works Inspection Division (off-site)	1,200 square feet
TOTAL	**116,260 square feet**
Parking Lots	333 spaces

	Future Facilities Cost	Size		Cost Estimate
1.	City Hall	25,765	sf[33]	$ 2,203,300
2.	Public Services Facility	40,615	sf[33]	3,023,500
3.	New City Hall Annex	28,925	sf[33]	3,023,600
4.	Legislative Offices	6,000	sf[33]	1,330,000
5.	Subterranean Parking	126	spaces	1,008,000
6.	Parking Structure	359	spaces	2,872,000
7.	Demolition	5,920	sf	83,600
8.	Surface Parking	45,425	sf	227,100
9.	Misc. Site Improvements	15,000	sf	180,000
10.	Landscaping	55,000	sf	698,500
11.	Land Acquisition (459 F Street)		---	---
12.	Master Plan	---		65,250
	TOTAL			**$15,459,300**

[33] Some of the size figures represent a combination of remodeled existing square footage and newly constructed square footage. The completed civic facilities will total 149,120 square feet with 625 parking spaces.

3.13.4 Adequacy Analysis

The Master Plan for the Chula Vista Civic Center shows 126,990 square feet of Civic Center facilities are needed to serve the population in 1988. This identifies an existing space deficiency of 15,050 square feet. Since the writing of the Master Plan, the City has acquired the 3,120 square foot County Health building and a 1,200 square foot Public Works office. They are both listed under Existing Facilities. Because of this increase in square footage, the deficiency is reduced to 10,730 square feet.

The need for the Civic Center can not be easily related to population figures or acres of commercial and industrial land which will be developed in the future. The facilities, according to the master plan, are currently inadequate because of the lack of space. This inadequacy will worsen as employee numbers and their workloads increase in response to demands for services, which are generated by new development.

The City is moving ahead to implement Phase #1 of the Civic Center Master Plan by acquiring additional land to the west of the existing Civic Center for the proposed parking garage.

3.13.5 Financing Civic Center Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. The facilities are required to support future development within the City. The current fee adopted in accordance with Government Code Section 66000 is $2,150 per equivalent dwelling unit.

The Otay Ranch SPA One project is within the boundaries of the public facilities DIF program and, therefore, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current Civic

Center fee rate of $527 per dwelling unit and $20.10/DU for administration. The Otay Ranch SPA One obligation at buildout is $33,278,994.

Table 45
PUBLIC FACILITIES FEES FOR CIVIC CENTER

	EDUs	Civic Center Fee @ $527/EDU
Village 1		
Blue	568.0	$ 299,336
Green	634.0	334,118
Brown	310.0	163,370
Purple	1,195.5	630,029
Village 1E/5W		
Grey	1,038.4	547,237
Orange	474.0	249,798
Village 5		
Pink	236.0	124,372
Yellow	575.1	303,078
Red	301.0	158,627
Village 1W		
Silver	408.0	215,016
Gold	482.0	254,014
TOTAL	**6,222.0**	**$ 3,278,994**

3.13.6 Threshold Compliance

Civic Center facilities will be funded through the collection of the public facilities fees at the rate in effect at the time building permits are issued.

3.14 Corporation Yard

3.14.1 Threshold Standard

There is no adopted threshold standard for this facility. The facility information is being provided in this report to aid the City in establishing operational benchmarks that will determine construction phasing of the corporation yard.

3.14.2 Service Analysis

The corporation yard is currently operating beyond capacity. New development, with its resultant increase in required maintenance services, creates a need for a larger corporation yard. The new yard may be located east of Interstate 805 because of the availability of centrally located large parcels. A City staff memo dated November 11, 1987 states that 15 acres are needed to accommodate 85,010 square feet of office and storage and 228,000 square feet of parking.

3.14.3 Existing Conditions

Existing Facilities	Location
Corporation Yard	707 "F" Street

Future Facilities		Cost Estimate
1.	Buildings	$ 4,699,491
2.	Outside Storage	1,031,362
3.	Parking	543,598
4.	Site preparation and grading	4,000,000
5.	Site development, utilities, and landscaping	1,181,260
6.	Site acquisition	1,995,000
TOTAL		**$13,450,711**

3.14.4 Adequacy Analysis

The growth in population, increase in street miles and the expansion of developed areas in Chula Vista, requires more equipment for maintenance as well as more space for storage and the administration of increased numbers of employees. The need for a larger Corporation Yard can be specifically related to new development and its effect on all of these subjects.

The existing corporation yard located at "F" Street and Woodlawn no longer accommodates present demands. A site within the Otay Rio Business Park adjacent to the proposed MCA Amphitheater is being considered because it provides a central location as the City grows to buildout and because this large parcel of land is available east of Interstate 805 which is suitable for a corporation yard.

3.14.5 Financing Corporation Yard Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. 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 current fee is $2,150 per equivalent dwelling unit.

The Otay Ranch SPA One project is within the boundaries of the public facilities DIF program and, therefore, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current fee rate, the Otay Ranch SPA One obligation at buildout is $3,204,330.

Table 46
PUBLIC FACILITIES FEES FOR CORPORATION YARD

	EDUs	Corp. Yard Fee @$515/EDU
Village 1		
Blue	568.0	$ 292,520
Green	634.0	326,510
Brown	310.0	159,650
Purple	1,195.5	615,683
Village 1E/5W		
Grey	1,038.4	534,776
Orange	474.0	244,110
Village 5		
Pink	236.0	121,540
Yellow	575.1	296,177
Red	301.0	155,015
Village 1W		-
Silver	408.0	210,120
Gold	482.0	248,230
TOTAL	**6,222.0**	**$ 3,204,330**

3.14.6 Threshold Compliance

Corporation Yard facilities will be funded through the collection of public facility fees at the rate in effect at the time building permits are issued.

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3.15 Other Public Facilities

3.15.1 Threshold Standard

There is no adopted threshold standard for these facilities which are part of the Public Facilities Development Impact Fee Program and include GIS, Mainframe Computer, Telephone System Upgrade, and Records Management. The information regarding these capital items is being provided in this section of the PFFP to aid the City and the developer in calculating the PFDIF fees to be paid by the Otay Ranch SPA One project.

3.15.2 Service Analysis

The public facilities identified in Section 3.15.1, above, are described in the report entitled *Development Impact Fee for Public Facilities* dated April 20, 1993, known as document number C093-075.

3.15.3 Existing Conditions

The City continues to collect funds from building permit issuance in the Eastern Territories for deposit to the accounts associated with these facilities.

3.15.4 Financing Other Public Facilities

This information is being provided to aid the City and the developer in calculating the level of funds to be received from the payment of fees associated with this "Other Public Facilities" category.

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula

Vista. 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 current fee is $2,150 per equivalent dwelling unit. The component of the fee attributable to "Other Public Facilities" as described above is $113.16 per EDU that includes $4.16 per EDU for PFDIF administration at 2%.

The Otay Ranch SPA One project is within the boundaries of the public facilities DIF program and, therefore, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current fee rate, the Otay Ranch SPA One obligation at buildout is $678,198 as shown on the following table.

Table 47

PUBLIC FACILITIES FEES FOR OTHER PUBLIC FACILITIES

	EDUs	Other Public Facilities Fee @ $109/EDU
Village 1		
Blue	568.0	$ 61,912
Green	634.0	69,106
Brown	310.0	33,790
Purple	1,195.5	130,310
Village 1E/5W		
Grey	1,038.4	113,186
Orange	474.0	51,666
Village 5		
Pink	236.0	25,724
Yellow	575.1	62,686
Red	301.0	32,809
Village 1W		-
Silver	408.0	44,472
Gold	482.0	52,538
TOTAL	**6,222.0**	**$ 678,198**

3.15.5 Threshold Compliance

Other Public Facilities will be funded through the collection of public facility fees at the rate in effect at the time building permits are issued.

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4.1 Public Facility Finance

4.1.1 Overview

The City will ensure the appropriate public facilities financing mechanisms are utilized to fund the acquisition, construction and maintenance of public facilities required to support the planned development of the Otay Ranch SPA One project in compliance with the City's Growth Management Program.

Public facilities are generally provided or financed in one of the following three ways:

1. Subdivision Exaction - Developer constructed and financed as a condition of project approval.

2. Development Impact Fee - Funded through the collection of an impact fee. Constructed by the public agency or developer constructed with a reimbursement or credit against specific fees.

3. Debt Financing - Funded using one of several debt finance mechanisms. Constructed by the public agency or developer.

It is anticipated that all three methods will be utilized for the Otay Ranch SPA One project to construct and finance public facilities.

4.1.2 Subdivision Exactions

Neighborhood level public improvements will be developed simultaneously with related residential and non-residential subdivisions. Through the use of the Subdivision Map Act, it is the responsibility of the developer to provide for all local street, utility and recreation improvements. The use of subdivision conditions and exactions, where appropriate, will insure that the construction of neighborhood facilities is timed with actual development.

The imposition of subdivision conditions and exactions does not preclude the use of other public facilities financing mechanisms to finance the public improvement, when appropriate.

4.1.3 Development Impact Fee Programs

Development Impact Fees are imposed by various governmental agencies, consist with State law, to contribute to the financing of capital facilities improvements within the City of Chula Vista. The distinguishing factor between a fee and a subdivision exaction is that exactions are requested of a specific developer for a specific project whereas fees are levied on all development projects throughout the City or benefit area pursuant to an established formula and in compliance with State law.

Otay Ranch SPA One, through policy decisions of the City of Chula Vista and other governing agencies, is subject to fees established to help defray costs of facilities which will benefit Otay Ranch SPA One and areas beyond this specific project. These fees include but may not be limited to:

1. *Eastern Chula Vista Transportation Impact Fee* - Street DIF established to provide financing for circulation element road projects of regional significance in the area east of Interstate 805.

2. *Interim Pre-SR 125 Transportation Fee* - Effective January 1, 1995, to fund interim improvements within the SR 125 right of way consistent with the pre SR 125 strategy as identified in the "Interim State Route 125 Facility Feasibility Study" dated May 1993.

3. *Public Facilities Development Impact Fee* - Public Facilities DIF established to collect funds for Civic Center Facilities, Police Facility Remodeling, Corporation Yard Relocation, Libraries, Fire Suppression System, Geographical Information System, Mainframe Computer, Telephone System Upgrade and a Records Management System.

4. *Park Acquisition and Development Fees* - PAD Fee established to pay for the acquisition and development of park facilities.

5. *Traffic Signal Fees* - to pay for traffic signals associated with circulation element streets.

6. *Telegraph Canyon Drainage Basin Fee* - to pay for constructing drainage channel improvements.

7. *Poggi Canyon Drainage Basin Fee* – to pay for constructing drainage channel improvements.

8. *Telegraph Canyon Sewer Basin Fee* - to pay for sewer basin improvements necessitated by future development in the basin as identified in the "Telegraph Canyon Sewer Basin Improvement and Financing Plan" dated July 31, 1992.

9. *Telegraph Canyon Sewer Basin Pumping Fee* - to pay for out-of-basin flows needing to be pumped into the Telegraph Canyon basin as described in the "Telegraph Canyon Sewer Basin Improvement and Financing Plan Amendment Incorporating Pumped Flows" dated June 9, 1993.

10. *State Mandated School Impact Fees* - payable to the Chula Vista City School District and Sweetwater Union High School District. It should be noted that both school districts generally require development projects to establish a Mello-Roos Community Facilities Districts in lieu of paying State mandated school fees.

11. *Otay Water District Fees* - The Water District may require the formation of or annexation to an existing improvement district or creation of some other finance mechanism which may result in specific fees being waived.

4.1.4 Debt Finance Programs

The City of Chula Vista has used assessment districts to finance a number of street improvements, as well as sewer and drainage facilities. Both school districts have implemented Mello-Roos Community Facilities Districts to finance school facilities.

Assessment Districts

Special assessment districts may be proposed for the purpose of acquiring, constructing, maintaining certain public improvements under the Municipal Improvement Act of 1913, the Improvement Bond Act of 1915, the Benefit Assessment Act of 1982, and the Lighting and Landscape Act of 1972. The general administration of the special assessment district is the responsibility of the public agency.

Special assessment financing may be appropriate when the value or benefit of the public facility can be assigned to a specific property. Assessments are levied in specific amounts against each individual property on the basis of relative benefit. Special assessments may be used for both publicly dedicated on-site and off-site improvements and maintenance.

As a matter of policy, the City limits the type of improvements that can be financed by assessment district

bonding in residential projects. Such improvements are generally limited to collector streets and larger serving entire neighborhood areas or larger. This policy applies to backbone infrastructure including streets, water, sewer, storm drain, and dry utility systems.

Mello-Roos Community Facilities Act of 1982

The Mello-Roos Community Facilities Act of 1982 authorizes formation of community facilities districts that impose special taxes to provide the financing of certain public facilities or services. Facilities that can be provided under the Mello-Roos Act include the purchase, construction, expansion, or rehabilitation of the following:

1. Local park, recreation, or parkway facilities;
2. Elementary and secondary school sites and structures;
3. Libraries;
4. Any other governmental facilities that legislative bodies are authorized to construct, own or operate including certain improvements to private property.

4.1.5 Other Methods Used to Finance Facilities

General Fund

The City of Chula Vista's general fund serves to pay for many public services throughout the City. Those facilities and services identified as being funded by general fund sources represent those that will benefit not only the residents of the proposed project, but also Chula Vista residents throughout the City. In most cases, other financing mechanisms are available to initially construct or provide the facility or service, then general fund monies would only be expected to fund the maintenance costs once the facility is accepted by the City.

State and Federal Funding

Although rarely available to fund an entire project, Federal and State financial and technical assistance programs have been available to public agencies, in particular the public school districts.

The City was recently awarded a $6 million State Grant to construct the Montgomery/Otay Library.

Dedications

Dedication of sites by developers for public capital facilities is a common financing tool used by many cities. In the case of Otay Ranch SPA One, the following public sites are proposed to be dedicated:

1. Roads (if public)
2. Park sites
3. Open space and public trail systems

Homeowners Associations

Community Homeowner Associations are not proposed by the developer to manage, operate and maintain private facilities within Otay Ranch SPA One.

Developer Reimbursement Agreements

Certain facilities that are off-site of Otay Ranch SPA One and/or provide regional benefits may be constructed in conjunction with the development of Otay Ranch SPA One. In such instances, developer reimbursement agreements will be executed to provide for a future payback to the developer for the additional cost of these facilities. Future developments are required to pay back their fair share of the costs for the shared facility when development occurs.

Special Agreements/Development Agreement

This category includes special development programs for financing construction of Telegraph Canyon Road and State Route 125. It also includes any other special arrangements between the City and the developer such as credits against fees, waiver of fees, or charges for the construction of specific facilities.

A development agreement can play an essential role in the implementation of the Public Facilities Financing Plan. The Public Facilities Financing Plan clearly details all public facility responsibilities and assures that the construction of all necessary public improvements will be appropriately phased with actual development, while the development agreement identifies the obligations and requirements of both parties.

4.1.6 Public Facility Finance Policies

The following finance policies were included and approved with the Growth Management Program to maintain a financial management system that will be implemented consistently when considering future development applications. These policies will enable the City to effectively manage its fiscal resources in response to the demands placed on the City by future growth.

1. Prior to receiving final approval, developers shall demonstrate and guarantee that compliance is maintained with the City's adopted threshold standards.

2. The Capital Improvement Program Budget will be consistent with the goals and objectives of the Growth Management Program. The Capital Improvement Program Budget establishes the timing for funding of all fee related public improvements.

3. The priority and timing of public facility improvements identified in the various City fee programs shall be made at the sole discretion of the City Council.

4. Priority for funding from the City's various fee programs shall be given to those projects which facilitate the logical extension or provision of public facilities as defined in the Growth Management Program.

5. Fee credits, reimbursement agreements, developer agreements or public financing mechanisms shall be considered only when it is in the public interest to use them or these financing methods are needed to rectify an existing facility threshold deficiency. Such action shall not induce growth by prematurely extending or upgrading public facilities.

6. All fee credit arrangements or reimbursement agreements will be made based upon the City's plans for the timing and funding of public facilities contained in the Capital Improvement Program Budget.

7. Public facility improvements made ahead of the City's plans to construct the facilities will result in the need for additional operating and maintenance funds. Therefore all such costs associated with the facility construction shall become the responsibility of the developer until such time as the City had previously planned the facility improvement to be made.

4.1.7 Cumulative Debt

The City of Chula Vista has an established policy limiting the maximum annual tax to be placed on a residential dwelling unit to an additional one percent above the property tax. This policy was restated in the adopted Growth Management Program.

Like many other cities, Chula Vista has long understood that it is not the only agency which can utilize public finance

mechanisms and, therefore, can not always guarantee that the total debt will remain at or below a maximum of 2 percent. As a result, the City makes an effort to coordinate its debt finance programs with the other special districts (schools and water) which provide service to the residents of Chula Vista to ensure that the cumulative annual tax does not become excessive. Coordination is also necessary to guarantee all public facilities needed to support a development can be financed and constructed as needed.

Debt capacity is found by totaling the assessed value of residential and commercial/industrial property and applying to this total two percent rate cap established by City policy as can be seen in Table 46. Subtracting from this total assessed value the value of taxes resulting from application of the effective property tax rate as determined by the County Tax Collector (1.12%), produces the revenue available from indebtedness that could be placed on the property. Table 48 is based on information contained in the *Addendum Fiscal Impact Analysis of the Chula Vista Sphere of Influence Update* dated March 2, 1995 and updated to reflect the current land use plan for SPA One.

Table 49 identifies an estimated cost of facilities that may qualify for debt financing. This amount ($129,965,665) is less than all five alternative interest cost and bond term examples identified on the following page. Using the preferred alternative of 6.5% net interest cost and 25 year bond term applied to a conservative $13.9 million in available annual debt service allows for the financing of approximately $169,743,810 in eligible improvements. This results in an excess capacity of approximately $39,778,145. Therefore, there appears to be sufficient revenue capacity available to finance the improvements listed, although additional analysis will be required at the time of the first utilization of debt financing in SPA One.

The Public Works Department generally requires the preparation of an assessment district feasibility plan for the buildout of a master planned community prior to initiation of the first assessment district in order to determine the debt capacity limits and benefit zones related to using public financing to fund infrastructure improvements.

Table 48
ESTIMATED REVENUE AVAILABLE FOR DEBT SERVICE ON LAND SECURED FINANCINGS

DUs or Acres	Assessed Value	FAR[34]	Total AV
Village One			
1,456SFD	264,868	N/A	$385,647,808
1,422 MFU	135,000	N/A	191,970,000
8.1 AC COMM.	155/sf	60%	32,813,748
		Total Village One Assessed Value	***$610,431,556***
Village Five			
1,694 SFD	264,868	N/A	448,686,392
659 MFU	135,000	N/A	88,965,000
2.8 AC COMM.	155/sf	60%	11,343,024
		Total Village Five Assessed Value	***$548,994,416***
Village One West			
890 SFD	264,868	N/A	235,732,520
		Total Village One West Assessed Value	***$235,732,520***
TOTAL ASSESSED VALUE			**1,395,158,492**
		2.0% Tax Rate Cap By City Policy	27,903,169
		1.12% Tax Rate Utilized	15,625,775
REVENUE AVAILABLE TO PAY DEBT SERVICE @ 2.00% - 1.12%			**$12,773,394**

Using $13.9 million as a conservative amount available for annual debt service and varying the net interest cost (NIC) and term of bond, the following public facility costs could be funded through a financing vehicle such as Mello-Roos and special assessment districts.

34 Floor Area Ratio. Used as a percentage to calculate building square footage from parcel acreage.

A 5.5% (NIC) and 30 year term will fund approximately $202,249,403

A 6.5% (NIC) and 25 year term will fund approximately $169,743,810

A 6.5% (NIC) and 20 year term sill fund approximately $153,331,883

A 7.5% (NIC) and 25 year term will fund approximately $155,119,215

A 7.5% (NIC) and 20 year term will fund approximately $141,865,002

Table 49
ESTIMATE OF FACILITIES COST FUNDED FROM DEBT SERVICE

Facility	Segment	SPA One Responsibility	Unit Cost	Cost
Elementary Schools	N/A	2.6 EA	$8,430,525	$21,919,365
Middle School	N/A	.50 EA	19,500,000	9,750,000
High School	N/A	.50 EA	44,900,000	22,450,000
			Subtotal Schools	***54,119,365***
La Media	Otay Lakes to Olympic Parkway	5,200 LF	$450	4,170,000
Paseo Ranchero	Telegraph to Olympic Parkway	3,600 LF	450	2,790,000
Olympic Parkway	SR125 to Paseo Ranchero	11,069 LF	2,450	27,123,000
Olympic Parkway	Paseo Ranchero to Existing	8,844	2,100	18,557,000
Olympic Pkwy. Ramp	N/A	1 EA		1,855,000
			Subtotal Arterials	***54,495,000***
.st Palomar	Paseo Ranchero to La Media	7,400 LF		4,070,000
East Palomar	La Media to Olympic Pkwy.	2,880 LF		2,500,000
			Subtotal Spine Roads	***6,570,000***
Village 5	Various	16,680 LF	$220	3,669,600
Village 1	Various	14,480 LF	220	3,185,600
Village 1West	Various	3,680	220	809,600
			Subtotal Promenade Streets	***7,664,800***
Poggi Interceptor	Offsite	1 EA	$4,088,600	4,088,600
Poggi Interceptor-18"	W. Boundary to Paseo Ranchero	3,460 LF	130	449,800
Poggi Interceptor-15"	Paseo Ranchero to SR125	15,740 LF	115	1,810,100
			Subtotal Sewer	***6,348,500***
Pedestrian Bridge	Village 1 to 5	1 EA		768,000
			Total Pedestrian Bridges	***768,000***
			TOTAL ALL ELIGIBLE FACILITIES	**$129,965,665**

The City of Chula Vista is currently preparing an Olympic Parkway Financing Plan. The City is exploring financing

mechanisms and developing a recommended financing package, including Assessment Districts/Community Facility Districts. The cost for constructing Olympic Parkway improvements from I-805 to SR-125 will be shared by all benefiting property owners, including portion of Otay Ranch (SPA One, Village One West, Village Two West, Village Two, Village Six, New Millenium ownership and other McMillin Companies ownership), EastLake and Sunbow.

It is assumed that if no other development occurs, SPA One would be obligated to fund partial improvements of Olympic Parkway required to serve SPA One, as indicated on Table 10.

4.1.8 Lifecycle Cost

Section 19.09.060 Analysis subsection F(2) of the Growth Management Ordinance requires the following:

"¼ The inventory shall include Life Cycle Cost ("LCC") projections for each element in 19.09.060(E)¼as they pertain to City fiscal responsibility. The LCC projections shall be for estimated life cycle for each element analyzed. The model used shall be able to identify and estimate initial and recurring life cycle costs for the¼elements¼"

Background

The following material presents information on the general aspects of life cycle cost analysis as well as its specific application to the City of Chula Vista operations. The discussion regarding the general benefits and process of LCC is meant to provide a common base of understanding upon which further analysis can take place.

Life cycle costing (LCC) is a method of calculating the total cost of asset ownership over the life span of the asset. Initial costs and all subsequent expected costs of significance are included in the life cycle cost analysis as well as disposal value and any other quantifiable benefits to be derived as a

result of owning the asset. Operating and maintenance costs over the life of an asset often times far exceed initial costs and must be factored into the (decision) process.

Life cycle cost analysis should not be used in each and every purchase of an asset. The process itself carries a cost and therefore can add to the cost of the asset. Life Cycle Cost analysis can be justified only in those cases in which the cost of the analysis can be more than offset by the savings derived through the purchase of the asset.

Four major factors that may influence the economic feasibility of applying LCC analysis are:

1. Energy Intensiveness - LCC should be considered when the anticipated energy costs of the purchase are expected to be large throughout its life.

2. Life Expectancy - For assets with long lives (i.e., greater than five years), costs other than purchase price take on added importance. For assets with short lives, the initial costs become a more important factor.

3. Efficiency - The efficiency of operation and maintenance can have significant impact on overall costs. LCC is beneficial when savings can be achieved through reduction of maintenance costs.

4. Investment Cost - As a general rule, the larger the investment the more important LCC analysis becomes.

The four major factors listed above are not, however, necessary ingredients for life cycle cost analysis. A quick test to determine whether life cycle costing would apply to a purchase is to ask whether there are any post-purchase costs associated with it. Life cycle costs are a combination of initial and post-purchase costs.

Applications for LCC Analysis

The City of Chula Vista utilizes the concepts of life cycle cost analysis in determining the most cost-effective purchase of capital equipment as well as in the determination of replacement costs for a variety of rolling stock. City staff uses LCC techniques in the preparation of the City's Five Year Capital Improvement Budget (CIP) as well as in the Capital Outlay sections of the annual Operating Budget.

In addition to these existing processes, the City should require the use of LCC analysis prior to or concurrent with the design of public facilities required by new development. Such a requirement will assist in the determination of the most cost-effective selection of public facilities.