

**OTAY RANCH – VILLAGE 2 COMPREHENSIVE SPA PLAN  
SUPPLEMENTAL  
PUBLIC FACILITIES FINANCE PLAN**

**Village 2 SPA Plan PFFP  
Approved by:  
Chula Vista City Council  
Date: May 23, 2006, Resolution 2006-156**

**Village 2 SPA Plan Amendment  
Supplemental PFFP  
Approved by:  
Chula Vista City Council  
Date: April 3, 2012, Resolution 2012-056**

**Village 2 Comprehensive SPA Plan  
Supplemental PFFP  
Approved by:  
Chula Vista City Council  
Date: \_\_\_\_\_, 2014, Resolution \_\_\_\_\_**

**September 8, 2014**

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# I. EXECUTIVE SUMMARY

## OVERVIEW

This Supplemental Public Facility Finance Plan (PFFP) addresses the public facility needs associated with the Otay Ranch Village 2 Comprehensive SPA Plan Amendment. The developer proposed project as described in the SPA Plan is sometimes referred to as “The Project” or the Village 2 Comprehensive SPA Plan in this PFFP. The PFFP has been prepared under the requirements of the City of Chula Vista’s Growth Management Program and Chapter 9, Growth Management of the Otay Ranch General Development Plan (GDP). The preparation of the Supplemental PFFP is required in conjunction with the preparation of the SPA Plan Amendment for the project 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 (GDP) which was adopted by the Chula Vista City Council on October 28, 1993, and may be amended from time to time to ensure that the development of the project will not adversely impact the City’s Quality of Life Threshold Standards. This Supplemental PFFP meets the policy objectives of the Otay Ranch GDP.

This PFFP is based upon the phasing and project information that has been presented in the *Otay Ranch GDP and the Village of Montecito SPA Plan Amendments* dated July, 2014. The PFFP begins by analyzing the existing demand for facilities based upon the demand from existing development and those projects with various entitlements through the year 2018. Further, the PFFP uses the developer proposed phasing to determine the associated impacts.

When specific thresholds are projected to be reached or exceeded based upon the analysis of the phased development of the project, the PFFP provides recommended mitigation necessary for continued compliance with the Growth Management Program and Quality of Life Threshold Standards. The PFFP does not propose different development phasing from that proposed by the project or alternative plans, but 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 Threshold Standards. Subsequent changes to the phasing shall require an amendment to this PFFP.

Typically, as an applicant receives each succeeding development approval, the applicant must perform the required steps that will ensure the timely provision of the required facility. Failure to perform the required step curtails additional development approvals. The typical steps are illustrated below:

### **Performance of Facility Thresholds**

#### **GDP:**

- 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 Threshold Standards.
- 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 threshold standards and development entitlements is the PFFP. Part II, Chapter 9, Section C of the GDP/SPA Processing Requirements, General Development Plan Implementation, requires the 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 Subregional Plan (SRP).

Subsection C of the City of Chula Vista Municipal Code (CVMC) 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.

**A. General Conditions for Village 2 Comprehensive SPA Plan Supplemental PFFP**

1. All development within the boundaries of the PFFP for the project shall conform to the provisions of Section 19.09 of the Chula Vista Municipal Code (Growth Management Ordinance) as may be amended from time to time and to the provisions and conditions of this Public Facilities Financing Plan.
2. All development within the boundaries of the PFFP for the project shall be required to pay development impact fees, unless the developer has entered into a separate agreement with the City, 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 Village 2 & a Portion of 4 SPA shall also be responsible for fair share proportionate fees that are necessary to meet the adopted facility performance standards as they relate to the SPA Plan and subdivision application.
3. The Public Facilities Finance Plan shall be implemented in accordance with Chula Vista Municipal Code (CVMC) 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 this 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 the proposed Project Site Utilization Plan (Exhibit 3).
7. The plan analysis is based upon the phasing presented in this document. Changes to phasing may require an amendment to the PFFP.
8. The proposed dwelling unit yield for the Village 2 Comprehensive SPA Plan may not be achieved at the subdivision level. The maximum density as specified for individual parcels shall not be exceeded; however, actual dwelling unit yields for projects will be determined by field conditions, site plan and architectural review, and a number of external factors that influence the design and density of individual projects. This process of modifying the density or intensity of development is detailed in the SPA Plan.
9. Prior to the first final map developer shall provide letters of permission to grade off site or provide interim slopes within the project at all locations where the edge condition has not been constructed prior to each final map.

## **B. Public Facility Cost and Fee Summary Otay Ranch Village 2 Comprehensive SPA Amendment**

The following tables identify and summarize the various facility costs associated with development of the project. The facilities and their costs are identified in detail in subsequent sections of this document. The tables indicate a recommended financing alternative based upon current Chula Vista 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 *Traffic Impact Analysis Village 2 Comprehensive SPA Revised Report, March 4, 2014 by Chen + Ryan* has identified onsite and offsite road improvements that will be required as the result of the development of the project. The improvement projects listed include both offsite and onsite improvements. Most of the improvement projects are eligible for funding through the City's Transportation Development Impact Fee (TDIF) program. In the event the developer constructs a TDIF improvement, the cost of the improvement may be eligible for credit against TDIF fees. Construction of non-TDIF eligible improvements shall be completed by the developer as a project exaction.

TDIF Fees and traffic signal fees generated by the project are identified on Table A.1. Funding for street improvements may be accomplished in one or more possible funding alternatives such as:

- Payment of TDIF fees.
- Construction of improvements by developer with credit toward DIF fees on building permits.
- Financing through assessment districts or Community Facility Districts (CFD).
- Expenditure of available DIF account funds.
- Construction of improvements by other developers.
- Federal Funds.

Some off-site sewer, drainage and water facilities may be the responsibility of the developer if the facility is needed to support the proposed development.

The project is anticipated to require one elementary school, which is to be constructed with funding through a Mello-Roos CFD that will be established by the Chula Vista Elementary School District. The project will generate Middle and High School age students. The project will participate in a CFD to be established by the Sweetwater Union High School District.

The project will trigger development impact fees for parks and libraries. Police, fire and emergency medical services, civic center, corporation yard, and other city public facilities will be funded, in part, from revenues generated from the payment of Public Facilities Development Impact Fees at building permit issuance.

Altogether, the City's development impact fees facility for the Project are summarized on Table A.1.

**Table A.1  
Village 2 Comprehensive SPA Plan  
Summary of DIF Fees and Facilities<sup>1</sup>**

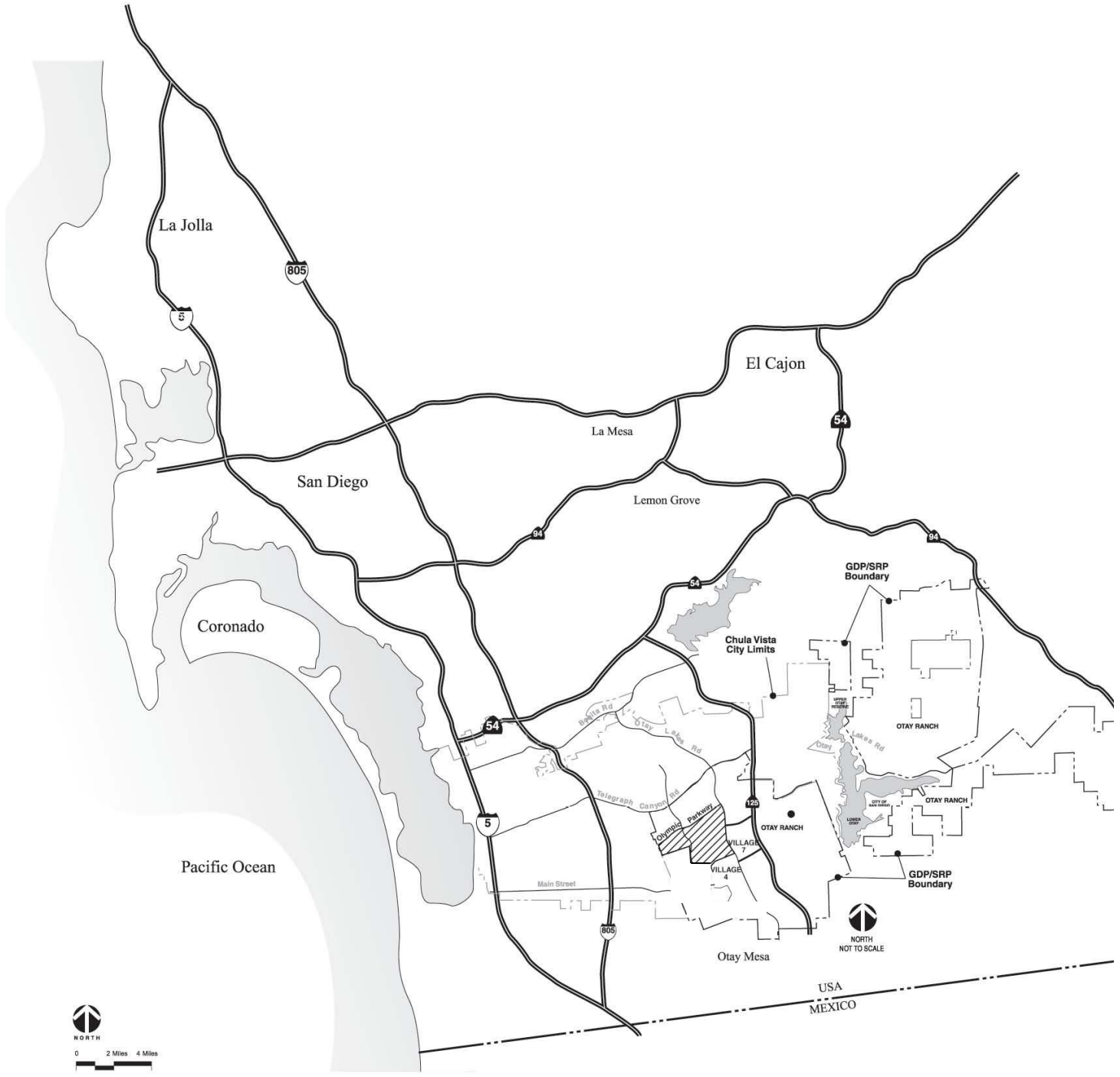
<b>Facility</b>	<b>Facility Description</b>	<b>Fee Estimate</b>	<b>DIF Program</b>	<b>Timing</b>	<b>Funding Source</b>	<b>Financing Method</b>
Transportation	Transportation Facilities	\$16,736,616	Transportation Facilities	Pay prior to issuance of Building Permit	TDIF exaction	Fee Program
	Traffic Signal	\$610,006	Traffic Signal Fee		DIF exaction	Fee Program
<b>Subtotal</b>		<b>\$17,346,622</b>				
Potable Water	624 & 711 Zone	To be Determined by OWD	City DIF fees do not apply to the OWD	Provide City Engineer OWD water availability letter and required improvements prior to approval of the Final Map.	OWD CIP Fees	Capacity Fees and Exactions
Recycled Water	680 Zone	To be Determined by OWD	City DIF fees do not apply to the OWD		OWD CIP Fees	Capacity Fees and Exactions
Sewer	Connect to exist sewer	\$ 805,197	Poggi Canyon & Wolf Canyon/Salt Creek Sewer DIF	Pay prior to issuance of Building Permit	DIF exaction	Fee Program
		\$5,482,719	Sewer Participation Fee		CIP/Development	Fee Program
<b>Subtotal</b>		<b>\$6,287,916</b>				
Drainage	Connect to exist SD	N/A	not required for Salt Creek	N/A	Developer funded	Exaction
Schools	No specific facility	N/A	School Fees	Provide documentation that school fees have been paid prior to issuance of Building Permit	Mello-Roos CFD	CFD
Parks	PAD Fees <sup>2, 3 4</sup>	\$20,291,132	PAD Fees	Prior to issuance of Bldg Permit	PAD Fees	Fee Program
Recreation	Pay PFDIF Fee	\$1,875,962	Public Facilities DIF	Prior to issuance of Bldg Permit	PFDIF	Fee Program
Library	Pay PFDIF Fee	\$2,471,084	Public Facilities DIF	Prior to issuance of Bldg Permit	PFDIF	Fee Program
Fire & EMS	Pay PFDIF Fee	\$1,550,110	Public Facilities DIF	Prior to issuance of Bldg Permit	PFDIF	Fee Program
Police	Pay PFDIF Fee	\$2,858,795	Public Facilities DIF	Prior to issuance of Bldg Permit	PFDIF	Fee Program
Civic	Pay PFDIF Fee	\$4, 100,010	Public Facilities DIF	Prior to issuance of Bldg Permit	PFDIF	Fee Program
Corp. Yard	Pay PFDIF Fee	\$ 585,033	Public Facilities DIF	Prior to issuance of Bldg Permit	PFDIF	Fee Program
Admin	Pay PFDIF Fee	\$ 892,191	Public Facilities DIF	Prior to issuance of Bldg Permit	PFDIF	Fee Program
<b>Subtotal</b>		<b>\$34,624,317</b>				
<b>Total</b>		<b>\$58,258,855</b>				

<sup>1</sup> Fees presented in this table are estimates only. The actual fee will be calculated prior to building permit issuance.

<sup>2</sup> See Section IX Parks, Trails and Open Space for the details of the Park Acquisition and Development Fee.

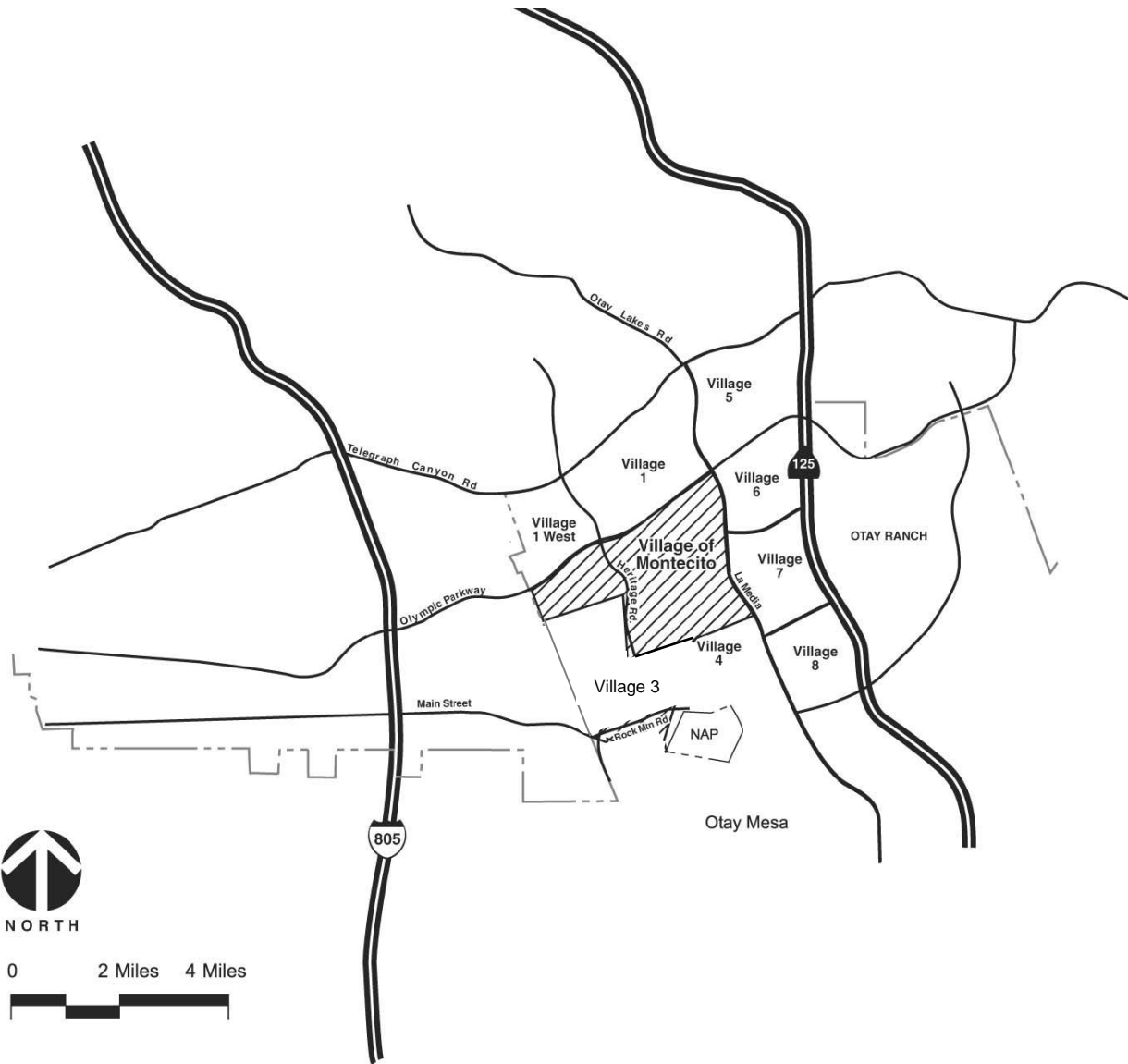
<sup>3</sup> In-lieu of PAD Fee payment, Developer may elect to build turnkey parks.

<sup>4</sup> Or deferral threshold in effect



 **Otay Ranch SPA Two**

## Regional Location Map Exhibit 1



**Vicinity Map  
Exhibit 2**

## **II. Introduction**

This Supplemental PFFP identifies each public facility and service improvement needed to support the Village 2 comprehensive SPA Plan project, with the appropriate funding sources. The implementing actions covered by the Supplemental PFFP are:

- Use of Public Financing Mechanisms where applicable.
- Construction of major streets, sewer, water and drainage facilities.
- Internal subdivision improvements pursuant to the Subdivision Map Act.
- Provision of other public facilities.
- Maintenance of certain facilities such as open space areas and street medians.

### **II.1. Background**

A Master Program Environmental Impact Report (PEIR) was completed for the 23,000-acre Otay Ranch community in 1993. The discretionary actions associated with the Otay Ranch project, including the zoning of the project area and adoption of the Otay Ranch General Development Plan (GDP), were approved by the City of Chula Vista concurrently with the PEIR. As part of the first SPA Plan in Otay Ranch, a Project-level EIR was completed which considered the impacts associated with the annexation of the Otay Valley Parcel, including the project site, from the County of San Diego to the City of Chula Vista.

Village 2 is the seventh in a series of approvals addressing development of the Otay Ranch Master Planned Community. SPA One was the first Otay Ranch SPA Plan. This plan covered Otay Ranch Villages 1 and 1-West and Village 5. Subsequent SPA Plans have been approved for Villages 6 (2002), 7 (2004), 11 (2001), Freeway Commercial (2004) Eastern Urban Center (2009) and the Village 8 West & Village 9 (2014).

The Otay Ranch Villages 2, 3 and Portion of Village 4 SPA Plan was approved by the Chula Vista City Council on May 23, 2006 and permitted 2,786 dwelling units with parks, elementary school site, commercial, and industrial land uses. This SPA Plan was subsequently modified through two administrative substantial conformance approvals in 2007. Additionally, in 2012 the Village 2 SPA Plan was amended to add 197 dwelling units to neighborhoods R-7A, R-9A, R-28 and R-29. The amendment also rezoned R-7A and R-9A from single-family (SF-3 and SF-4, respectively) to multi-family (RM-1) and R-28 from RM-1 to RM-2 per the adopted Village 2 Planned Community District Regulations.

### **II.2. Purpose**

The purpose of this document is to supplement the original 2006 Village 2 SPA PFFP, as amended, and applies only to Village 2 Comprehensive SPA Plan. Where this Supplemental PFFP conflicts with or requires more stringent standards than the approved Village 2 PFFP, the requirements of this Supplemental PFFP shall apply. The purpose of all PFFPs in the City of Chula Vista is to implement the City's Growth Management Program and to meet the General Plan goals and objectives, specifically those of the Growth Management Element. The Growth Management Program ensures that development occurs only when the necessary public facilities and services exist or are provided concurrent with the demands of new development. The Growth Management Program requires a PFFP be prepared for every new development project which requires either SPA Plan or tentative map approval. Similarly, amendments to a SPA Plan require an amendment or a supplement to the PFFP.



In the City of Chula Vista, the PFFP is intended to ensure adequate levels of service are achieved for all public services and facilities impacted by a project. It is understood that assumed growth projections and related public facility needs are subject to a number of external factors, such as the local economy, the City's future land use approval decisions, etc. It is also understood the funding sources specified herein may change due to financing programs available in the future or requirements of either state or federal law. It is intended for revisions to cost estimates and funding programs be handled as administrative revisions, whereas revisions to the facilities-driven growth phases are to be accomplished through an update process via an amendment to or a supplement to the PFFP.

### **II.3 Assumptions**

For this Supplemental PFFP there are a number of key assumptions that were made. The assumptions play a major part in determining public facility needs, the timing of those needs and the staging of growth corresponding to the various facilities. The key land use and phasing assumptions can be summarized in the following:

- A. The Village 2 Comprehensive SPA Plan would add 1,562 dwelling units in a variety of residential types for a total of 4,545 units in Village 2. The proposed project would decrease the allocated single family dwelling units by up to 70 and introduce 1,632 multi-family dwelling units. Up to 130,000 square feet of commercial uses would be located on the MU-2, MU-3 and C-1 parcels combined. In addition, the proposed project includes an additional 9.5 acres for a new elementary school, 10.5 acres of parkland, and 7.8 acres of CPF.
- B. This PFFP applies only to Village 2.
- C. This PFFP supplements the adopted on May 23, 2006 Village 2, 3 and Portion of 4 SPA Plan PFFP, as amended.
- D. The SPA Plan Amendment and PC District Regulations will regulate land use allocation and intensity of development for the amended neighborhoods.
- E. The project includes four Tentative Map's (TM's) that are referred to as the Village 2 North TM, Village 2 West TM, Village 2 South TM and the R-15b & R-31 TM .

In order to be consistent with the Otay Ranch Village 2 Comprehensive SPA Plan Amendment Supplemental Environmental Impact Report, this PFFP is based on the 2013 GMO Annual Report. Generally, the findings of the 2014 Annual Report are similar to the 2013 report in that same four Quality of Life Threshold Standards were found to be out of compliance. These standards include: Fire Reponse Times; Libraries; Police Priority 2 Reponse Times; and Traffic (One Arterial Segment: Heritage Road between Olympic Parkway and Telegraph Canyon continues to non compliant).

### **II.4 Threshold Standards:**

Chapter 19.09 of the Chula Vista Municipal Code provides the requirements for the Chula Vista Growth Management Plan. Subsection 19.09.040 provides the Quality of Life Threshold Standards for each public facility and improvement. There are standards for eleven topics addressing a variety of different public services and environmental issues. Several topics are related to services provided by city departments, such as police, fire, libraries, parks and

recreation, traffic, and drainage facilities. Threshold Standards for each of the eleven topics are stated in terms of a goal, objectives, and one or more standards. Table B.1 below provides a summary of the "Threshold Standards."

<b>Table B.1 Chula Vista's Threshold Standards (Condensed &amp; Paraphrased)</b>	
<b>Police</b>	Respond to 84% of the Priority I emergency calls within 7 minutes and maintain average response time of 4.5 minutes. Respond to 62% of Priority II urgency calls within 7 minutes and maintain average response time of 7 minutes.
<b>Fire/EMS</b>	Respond to calls within 7 minutes in 85% of all cases.
<b>Sewer</b>	Sewage flows and volumes shall not exceed City Engineering Standards. Annual report from Metropolitan Sewer Authority on impact of growth on sewer capacity.
<b>Drainage</b>	Storm flows and volume shall not exceed City Engineering Standards. Annual report reviewing performance of city's storm drains.
<b>Traffic</b>	Maintain Level of Service (LOS) "C" or better as measured by observed average travel speed on all signalized arterial streets, except, that during peak hours, an LOS "D" can occur for no more than any 2 hours of the day. Those signalized intersections west of Interstate 805 that do not meet the above standard may continue to operate at their 1991 LOS but shall not worsen
<b>Parks &amp; Recreation</b>	Maintain 3 acres of neighborhood and community parkland with appropriate facilities per 1,000 residents east of Interstate 805.
<b>Library</b>	Provide 500 square feet of library space adequately equipped and staffed per 1,000 population.
<b>Schools</b>	An annual report is required to evaluate the school district's ability to accommodate new growth.
<b>Water</b>	Annual report from water service agencies on impact of growth and future water availability.
<b>Air Quality</b>	Annual report required from Air Pollution Control District on impact of growth on air quality.
<b>Fiscal</b>	Annual report required evaluating impacts on growth on city operations, capital improvements, and development impact fee revenues and expenditures.

A. The Threshold Standards fall into three general categories:

1. *A performance standard measuring overall level of service* is established for police, fire and emergency medical services, sewers, drainage facilities, and traffic;
2. *A ratio of facilities to population* is established for park and recreation facilities, and libraries; and
3. *A qualitative standard* is established for schools, water, air quality, and fiscal impacts.

The qualitative standard pertains to some services that are provided by agencies outside of the city - schools are provided by the Chula Vista Elementary School District and the Sweetwater Union High School District and water service is provided by two independent water districts (Otay Water District and Sweetwater Authority). Finally, the air-quality and fiscal threshold standards do not relate to specific public services but are intended to determine whether growth is having an adverse impact on two other measures of quality of life: the air quality within the region and the city's overall fiscal health.

- B. The Threshold Standards are applied in three ways:
1. Many of the standards were used in the development and evaluation of the city's General Plan to ensure that quality-of-life objectives are met at the time of General Plan build-out during a 20-to-25 year period;
  2. Certain standards are used in the evaluation of individual development projects to determine the possible impacts of the Project and to apply appropriate conditions and requirements in order to mitigate those impacts; and
  3. All of the standards are monitored by the Growth Management Oversight Commission (GMOC) on an annual basis to ensure the cumulative impacts of new growth do not result in a deterioration of quality of life, as measured by these standards.

Threshold standards are used to identify when new or upgraded public facilities are needed to mitigate the impacts of new development. Building permits will not be issued 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.

## **II.5 Public Facilities Finance Plan Boundaries**

Section 19.12.070 of the Municipal Code requires that the City establish the boundaries of the PFFP at the time a SPA Plan or Tentative Map(s) 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:

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

The boundaries of the PFFP for the project are congruent with the SPA Plan boundaries. Also, the PFFP addresses certain facilities (streets, drainage, sewer, police, fire, etc.) that are impacted beyond the boundaries of the SPA Plan.

## **II.6 Chula Vista Development Phasing**

### **II.6.1 Existing Development**

As a starting point, the PFFP considers all existing development up to January 2013 as the base condition. This information is based upon City of Chula Vista Planning and Building Department growth management monitoring data. According to this and other data, the population of the City as of January 2013 is estimated at 251,613 (2013 Annual Residential Growth Forecast). This estimate is based on city estimates of growth for 2013 and combined with data from the California Department of Finance (DOF).

For the purposes of projecting facility demands for the Otay Ranch Village 2 Comprehensive SPA Supplemental PFFP, the City of Chula Vista utilizes a population coefficient of 3.24 persons per dwelling unit. This factor is used throughout this PFFP to calculate facility demands from approved projects. The coefficient has been confirmed for use in the PFFP by the Planning & Building Department. The same coefficient will be used for calculating the specific project facility demands.

## II.6.2. Development Phasing Forecast

A summary of the 2013-2018 development-phasing forecast is shown in Table B.2. The table presents an estimate of the amount of development activity anticipated to the year 2018. The total number of dwelling units permitted by the year 2018 is approximately 8,757 dwelling units. It should be noted that these projections are estimates and should be used for analytical purposes only and unless a development agreement or other legal instrument guarantees facility capacity, some projects with varying levels of entitlement may not have committed capacity.

PROJECT											Five Years Forecast	
	SEPTEMBER 2013 - DECEMBER 2014		JAN. - DECEMBER 2015		JAN. - DECEMBER 2016		JAN. - DECEMBER 2017		JAN. - DECEMBER 2018		SEPTEMBER 2013 - 2018	
	ISSUE*		ISSUE*		ISSUE*		ISSUE*		ISSUE*		ISSUE*	
	SF	MF	SF	MF	SF	MF	SF	MF	SF	MF	SF	MF
<b>OTAY RANCH</b>												
Village 2 North - Baldwin & Sons	159	114	61	107	72	69	13	9	0	0	305	299
Village 2 East - Baldwin & Sons	0	372	0	300	0	0	0	0	0	0	0	672
Village 2 South - Baldwin & Sons	28	0	97	0	178	177	112	120	0	120	415	417
Village 2 West - Baldwin & Sons	0	0	0	0	27	0	0	40	0	40	27	80
Village 2 - JPB (Anacapa II R-9)	22	0	9	0	0	0	0	0	0	0	31	0
Village 2 - JPB (Presidio II R-7)	32	0	35	0	0	0	0	0	0	0	67	0
Village 2 - JPB (R-28)	0	0	0	96	0	0	0	0	0	0	0	96
Village 3 North - JPB	0	0	130	125	300	250	300	250	272	250	1002	875
Village 6 - Oakwood (Contessa)	0	108	0	0	0	0	0	0	0	0	0	108
Village 7 - Baldwin & Sons	1	0	0	0	0	0	0	0	0	0	1	0
Village 7 - JPB (Monte Sereno)	16	0	8	0	0	0	0	0	0	0	24	0
Village 7 - McMillin (Mosaic)	0	34	0	11	0	0	0	0	0	0	0	45
Village 8 East - JPB	0	0	0	0	130	125	300	250	300	250	730	625
Village 8 West - Otay Land Co.	0	0	60	118	59	153	60	141	100	140	279	552
Village 9 - Otay Land Co.	0	10	0	0	0	0	73	174	102	263	175	437
Freeway Commercial - Baldwin & Sons	0	0	0	448	0	0	0	0	0	0	0	448
Eastern Urban Center - McMillin (Millenia)	0	310	0	87	0	354	0	18	0	0	0	769
<b>Otay Ranch Sub-Total</b>	<b>258</b>	<b>938</b>	<b>400</b>	<b>1,292</b>	<b>766</b>	<b>1,128</b>	<b>858</b>	<b>1,002</b>	<b>774</b>	<b>1,063</b>	<b>3056</b>	<b>5423</b>
Eastlake Vistas - Lennar Homes (Lake Pointe)	136	85	0	0	0	0	0	0	0	0	136	85
Bella Lago - Shea	18	0	0	0	0	0	0	0	0	0	18	0
Bella Lago - Bella Lago LLC	0	0	0	0	8	0	8	0	8	0	24	0
Rolling Hills Ranch - McMillin (Verona)	15	0	0	0	0	0	0	0	0	0	15	0
<b>SUB-TOTAL</b>	<b>427</b>	<b>1,023</b>	<b>400</b>	<b>1,292</b>	<b>774</b>	<b>1,128</b>	<b>866</b>	<b>1,002</b>	<b>782</b>	<b>1,063</b>	<b>3249</b>	<b>5508</b>
<b>TOTAL UNITS</b>	<b>1,450</b>		<b>1,692</b>		<b>1,902</b>		<b>1,868</b>		<b>1,845</b>		<b>8,757</b>	
	<b>Annual Average:</b>										<b>1,751</b>	

\*ISSUE = Building Permit

Source: City of Chula Vista Annual Residential Growth Forecast Years 2013 through 2018, Sept. 2013.

## II.7. Village 2 Comprehensive SPA Development Summary

The developer has planned the Village 2 Comprehensive SPA Plan to modify the Village 2 SPA Plan to be more responsive to homebuyer preferences and economic viability in light of the current economic conditions, existing village ownership, infrastructure status, and government policy objectives/requirements. The plan features increased residential densities, diversity of residential product types, and resident amenities such as park and CPF uses and an additional neighborhood elementary school. The proposed project will provide

opportunities for increased viability of commercial uses, transit ridership, village ‘walkability’, and decreased automobile dependence.

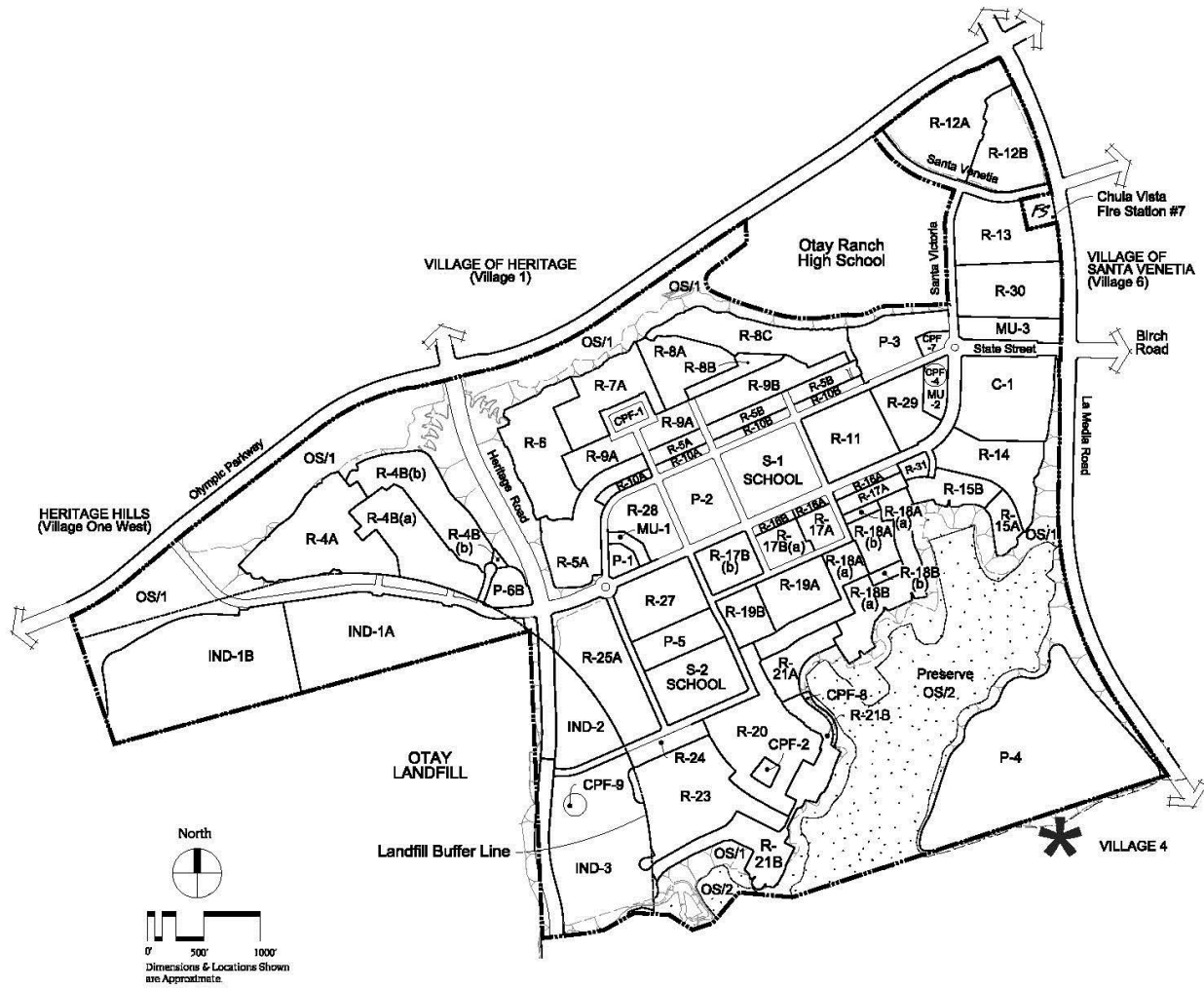
The Village 2 Comprehensive SPA Plan project will add 1,562 dwelling units in a variety of residential types for a total of 4,545 units in Village 2 (3,435 dwelling units under the Baldwin & Sons ownership). The proposed project would decrease the allocated single family dwelling units by 70 and introduce up to 1622 multi-family dwelling units. Up to 130,000 square feet of commercial uses would be located on the MU-2, MU-3 and C-1 parcels combined. In order to account for the increase in residential uses, the project will also include an additional 9.5 acres for a new elementary school, 12.2 acres of new parkland, and 7.8 acres of CPF. Proposed land uses are shown in Exhibit 3. Table B.3 shows a comparison of the development between the Village 2 Comprehensive SPA Plan and the current SPA Plan.

<b>Table B.3 Comparison of Proposed Village 2 Development</b>			
<b>Land Use</b>	<b>Current SPA Plan</b>	<b>Village 2 Comprehensive SPA Plan</b>	<b>Net Change</b>
Single-Family (B&S) (du)	451	381	-70*
Multi-Family (B&S) (du)	1,422	3054	+1632*
Other Residential** (du)	1,110	1,110	0
<b>Total Residential (du)</b>	<b>2,983</b>	<b>4,545</b>	<b>1,562</b>
Industrial (ac)	87.9	82.5	-5.4
Mixed Use and Commercial (ac)	18.7	22.5	3.8
CPF (ac)	6.3	14.1	7.8
Park <sup>23</sup> (ac)	58.4	70.3 <sup>1</sup>	12.2
School (ac)	10.3	19.8	9.5
Open Space (ac)	200.2	200.2	0.0
Future Development (ac)	33.1	-29.1	4.0
* The proposed project would result in a net decrease of 70 single-family residential units, and a net increase of 1,632 multi-family units. The increase is considered worst case scenario. ** “Other Residential” is not a part of the proposed project; data is presented for information/analysis purposes. <sup>1</sup> Includes 0.29 acres in R-48(b) Lot 2 and does not include 0.262 acres of in-lieu fee owed from original deficit. <sup>2</sup> Includes 46.5 acres in Village 4. <sup>3</sup> Includes 0.26 acres as in lieu fees, Lot P6B, waterline lots and the JPB additional lot adjacent to P-4. du = dwelling units; ac = acres			

Source: Otay Ranch Village Two Comprehensive SPA Plan Amendment Supplemental EIR

Actions that need to be approved by the City Council include amendments to the City of Chula Vista General Plan, the Otay Ranch GDP, the Otay Ranch Village 2, 3, and a Portion of 4 SPA, and the Otay Ranch Core Master Precise Plan (CMPP). The proposed project also requires four new Tentative Maps (TMs) for subject neighborhoods within Village 2. The following discretionary actions are associated with the proposed project and would be considered by the Chula Vista Planning Commission and City Council:

- Certification of a Final EIR and adoption of a Mitigation Monitoring and Reporting Program pursuant to the California Environmental Quality Act (CEQA).
- Approval of the Chula Vista General Plan Amendments
- Approval of the Otay Ranch General Development Plan Amendments

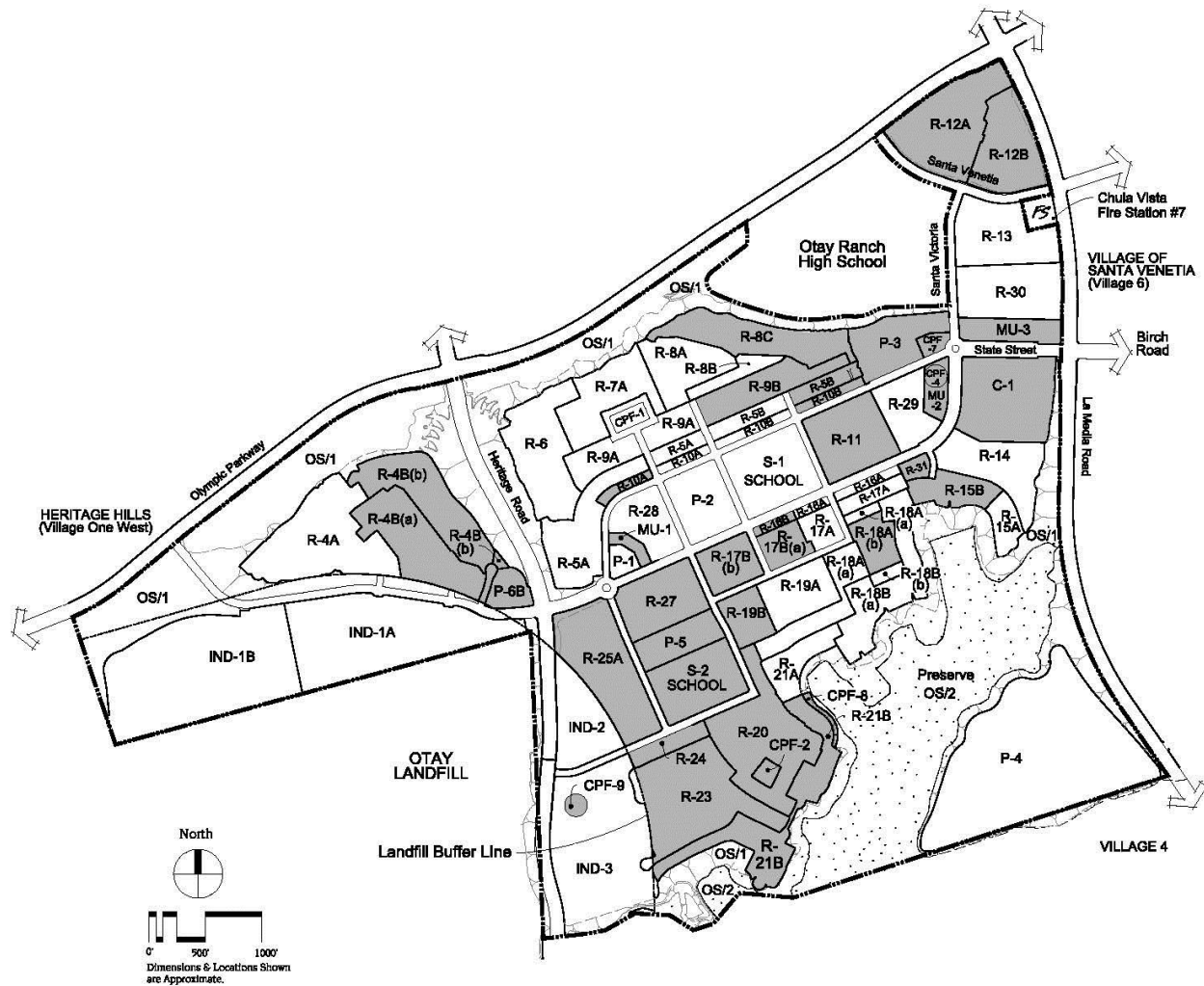


**LEGEND**

- R Residential**
- S School**
- P Park**
- CPF Community Purpose Facility**
- OS Open Space**
- C Commercial**
- PQ Public/Quasi-Public**
- MU Mixed Use**
- IND Industrial**
- \* Previously dedicated parkland (1.9 acres) adjacent Park Site P-4**

Source: Draft Village of Montecito & Otay Ranch Business Park SPA Plan, July 2014

**Village 2 Comprehensive SPA Site Utilization Plan  
Exhibit 3**



**LEGEND**

- R Residential**
- S School**
- P Park**
- CPF Community Purpose Facility**
- OS Open Space**
- C Commercial**
- PQ Public/Quasi-Public**
- MU Mixed Use**
- IND Industrial**
- Areas of Change**

Source: Draft Village of Montecito & Otay Ranch Business Park SPA Plan, July 2014

**Village 2 Project Area Changes  
Exhibit 4**

**Table B.4  
Village 2 Comprehensive SPA Site Utilization Plan Table**

LAND USE SUMMARY		Unit Type	Acreage	DUs	Target Density	LAND USE SUMMARY		Unit Type	Acreage	DUs	Target Density				
Neighborhood											Neighborhood				
<b>Land Use</b>						<b>Mixed Use</b>									
<b>Single Family</b>						<b>MU-1</b>						MU	1.8	38	
R-4A	SF	16.9	62	3.7		<b>MU-2<sup>†</sup></b>						MU	2.4	50	
R-8A	SF	7.5	48	6.4		<b>MU-3</b>						MU	4.3	90	
R-8C	SF	10.8	51	4.7		<b>C-1</b>						MU	14.0	235	
R-15A	SF	2.7	16	5.9		<b>Subtotal MU</b>							22.5	413	
R-15B	SF	4.6	27	5.9											
R-18A (a)	SF	6.8	38	5.6											
R-18A (b)	SF	3.7	24	6.5											
R-18B (a)	SF	10.3	43	4.2		<b>Industrial</b>									
R-18B (b)	SF	0.8	5	6.3		<b>IND-1a</b>						IND	25.8		
R-19A	SF	6.5	50	7.7		<b>IND-1b</b>						IND	33.7		
R-20	SF	15.5	80	5.2		<b>IND-2</b>						IND	8.5		
R-21A	SF	4.5	14	3.1		<b>IND-3</b>						IND	14.4	Does not include 9-acre floating CPF	
R-21B	SF	12.4	53	4.3		<b>Subtotal Industrial</b>							82.5		
R-23	SF	17.7	93	5.3		Note: Industrial parcels may be developed as residential and CPF uses subject to future environmental review and SPA Policies and Requirements, after landfill operations cease at the Otay Land Fill.									
<b>Subtotal Single-Family</b>															
		120.7	604	5.0		<b>Parks</b>									
						<b>P-1</b>						P	1.4		
						<b>P-2</b>						P	7.1		
						<b>P-3</b>						P	7.6		
						<b>P-4 A</b>						P	40.4		
						<b>P-4 B</b>						P	1.4	City of SD Waterline Pcl	
						<b>P-4 C</b>						P	2.8	City of SD Easement	
						<b>P-4 D</b>						P	1.9	V4 Dedication by JPB	
						<b>P-5</b>						P	5.1		
						<b>P-6</b>						P	2.7 <sup>†</sup>		
						<b>Subtotal Parks</b>							70.3*		
						Note: P-4B and P-4C can only be accepted for park credit if the City of San Diego Waterline is relocated.									
						<b>CPF<sup>**</sup></b>									
						<b>CPF-1</b>						CPF	1.2		
						<b>CPF-2</b>						CPF	0.9		
						<b>CPF-3</b>						CPF	0		
						<b>CPF-4<sup>^</sup></b>						CPF	1.5	10,000 sf of CPF use required	
						<b>CPF-5</b>						CPF	0		
						<b>CPF-7</b>						CPF	1.0		
						<b>CPF-8</b>						CPF	0.5		
						<b>CPF-9<sup>^</sup></b>						CPF	9.0	Floating CPF site in Ind-3	
						<b>Subtotal CPF</b>							14.1	3.6 acres of non-floating	
						<b>Other</b>									
						<b>S-1</b>						School	10.3		
						<b>S-2</b>						School	9.5		
						<b>Open Space</b>						OS	138.2		
						<b>Preserve</b>						OS	75.2		
						<b>Circulation</b>							63.5		
						<b>Future Development</b>							4.0		
						<b>Subtotal Other</b>							300.7		
						<b>Subtotal Multi-Family</b>							202.9	3,528	17.4
						<b>Village 2 Grand Total</b>							765.8	4,545	

\*\* An additional 3.9 acres of CPF will be provided within the Village Seven SPA.      <sup>^</sup> Floating CPF sites.  
<sup>†</sup> Includes 10,000 sf of building area for CPF uses.      \*Includes 46.5 acres of parkland (P-4) in Village 4 not counted in Village 2 area  
<sup>†</sup> P-6 can be enlarged to 3.0 acres (taking 0.29 acres from R-4B(b) Lot 2) if necessary to meet total parkland obligation

Source: Baldwin & Sons



Approval of SPA Plan Amendments for Villages 2, 3 and a Portion of 4

- Approval of the Otay Ranch Core Master Precise Plan Amendments
- Approval of four Tentative Maps for Village 2.

**II.8. Development Phasing:**

Development of the Village 2 Comprehensive SPA Plan area will be completed in multiple phases to ensure construction of necessary infrastructure and amenities for each phase as the project progresses. Table B.5 presents a Phasing Plan Summary that includes the triggers for specific infrastructure.

<b>Table B.5                      Otay Ranch Village 2 Comprehensive SPA Plan                      Phasing Summary</b>		
<b>Facility</b>	<b>Triggers</b>	<b>Financing Method</b>
<b>Intersection</b>		
Heritage Road / Olympic Parkway	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for the construction of Main Street)
La Media Road / Olympic Parkway	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for the construction of Main Street)
Heritage Road / Main Street	First final map that contains the 1 <sup>st</sup> EDU of Village 2 Comprehensive SPA with Heritage Road connection to Main Street	Payment towards TDIF (for Signalization)
La Media Road (SB) / Main Street (WB)	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for Signalization)
La Media Road (NB) / Main Street (WB)	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for Signalization)
La Media Road (SB) / Main Street (EB)	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for Signalization)
La Media Road (NB) / Main Street (EB)	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for Signalization)
Magdalena Avenue / Main Street	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for Signalization)
<b>Roadway Segment</b>		
Olympic Parkway between Heritage Road and Santa Venetia Street	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for construction of Main Street)
Heritage Road between East Palomar Street and Olympic Parkway	First final map that contains the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA	Payment towards TDIF (for construction of Main Street)

**Table B.5 - Continued**  
**Otay Ranch Village 2 Comprehensive SPA Plan**  
**Phasing Summary**

<b>Facility</b>	<b>Triggers</b>	<b>Financing Method</b>
<b>Potable Water</b> Zone 624 & 711 Improvements per OWD	Concurrent w/ Phasing	OWD CIP Fees
<b>Recycled Water</b> Zone 680 Improvements per OWD	Concurrent w/ Phasing	OWD CIP Fees
<b>Sewer</b> Connection to existing sewer system Sewer Improvements per city Pay Fees	Concurrent w/ Phasing Concurrent w/ Phasing Concurrent w/ Building Permit	Fee Program Exaction Fee Program
<b>Storm Drain</b> Connect to Existing Drainage System	Concurrent w/ Grading Permit	Fee Program
<b>Schools</b> No specific facility subject to fees	Pay School Fees	State Mandated Fees
<b>Community Park</b> Park Dedication	Concurrent with Phasing	PAD Fees
<b>Neighborhood Park</b> Park Dedication & Construction	Pursuant to the V2 Parks Agreement	PAD Fees or Turnkey Development
<b>Recreation</b> Pay PFDIF Fee	Pay @ Bldg. Permit	Fee Program
<b>Library</b> Pay PFDIF Fee	Pay @ Bldg. Permit	Fee Program
<b>Fire &amp; EMS</b> Pay PFDIF Fee	Pay @ Bldg. Permit	Fee Program
<b>Police</b> Pay PFDIF Fee	Pay @ Bldg. Permit	Fee Program
<b>Civic</b> Pay PFDIF Fee	Pay @ Bldg. Permit	Fee Program
<b>Corp Yard</b> Pay PFDIF Fee	Pay @ Bldg. Permit	Fee Program
<b>Other</b> Pay PFDIF Fee	Pay @ Bldg. Permit	Fee Program

The Phasing Plan is non-sequential by imposing specific facilities requirements for each phase to ensure that the SPA Plan areas are adequately served and City threshold standards are met. Public Park and School facilities shall be phased as needed. The developer proposed Phasing Plan (Table B.6) and the Conceptual Phasing Plan (Exhibit 5), reflect anticipated market demand for a variety of housing types, commercial and future business park development. It also reflects the anticipated ownership patterns within the project.

The development of the parcels and interior circulation pursuant to the Site Utilization Plan is conceptual. Minor modifications to these configurations may occur as a part of the tentative tract map approval process and may be accomplished through the substantial conformance procedure established in the Planned Community District Regulations.

**Table B.6<sup>5</sup>**  
**Developer Proposed Village 2 Comprehensive SPA Plan**  
**Conceptual Phasing Plan**

	Land Use	Blue		Red		Yellow		Green		Orange		Purple		Teal	White	Ac	du
		ac	du	ac	du	ac	du	ac	du	ac	du	ac	du	ac	ac	Total	Total
<b>RESIDENTIAL</b>																	
R-4a	SF	16.9	62													16.9	62
R-4b	SF/MF	23.4	386													23.4	68
R-5	MF			16.0	133											16.0	133
R-6	MF			12.6	126											12.6	126
R-7a	SF			9.4	82											9.4	82
R-8a	SF			7.5	48											7.5	48
R-8b	MF			2.5	29											2.5	29
R-8c	SF			10.8	51											10.8	51
R-9a	SF			6.9	67											6.9	67
R-9b	MF			7.1	75											7.1	75
R-10a	MF			2.0	44											2.0	44
R-10b	MF			2.6	61											2.6	61
R-11	MF			9.8	206											9.8	206
R-28	MF			5.2	96											5.2	96
MU-1	MU			1.8	38											1.8	38
R-16b	MF					0.7	17									0.7	17
R-17b(a)	MF					3.1	34									3.1	34
R-17b(b)	MF					4.7	95									4.7	95
R-19b	MF					4.0	39									4.0	39
R-20	SF					15.5	80									15.5	80
R-21b	SF					12.4	53									12.4	53
R-23	SF					17.7	93									17.7	93
R-24	MF					2.5	59									2.5	59
R-25a	MF					14.1	330									14.1	330
R-27	MF					8.7	275									8.7	275
R-19a	SF							6.5	50							6.5	50
R-16a	MF							1.8	38							1.8	38
R-17a	MF							4.5	44							4.5	44
R-18A	SF							10.5	62							10.5	62
R-18B	SF							11.1	48							10.4	48
R-21a	SF							4.5	14							4.5	14
R-12	MF									24.4	600					24.4	600
R-13	MF									10.4	137					10.3	137
R-30	MF									10.2	278					10.2	278
R-15	SF											7.3	43			7.3	43
R-14	MF											9.3	165			9.3	165
R-29	MF											5.9	187			5.9	187
R-31	MF											1.1	25			1.1	25
C-1	MU											14.0	235			14.0	235
MU-2	MU											2.4	50			2.4	50
MU-3	MU											4.3	90			4.3	90
<b>Subtotal</b>		<b>40.3</b>	<b>448</b>	<b>94.2</b>	<b>1056</b>	<b>83.4</b>	<b>975</b>	<b>38.9</b>	<b>256</b>	<b>45.0</b>	<b>1015</b>	<b>44.3</b>	<b>795</b>	<b>0</b>	<b>0</b>	<b>346.1</b>	<b>4545</b>

<sup>5</sup> Acreages and dwelling unit counts are estimates only and may change during the final engineering and mapping process. The proposed numbers of Single Family and Multi-Family dwelling units in any one phase may be different from the SPA Plan.

**Table B.6<sup>6</sup> Continued**  
**Developer Proposed Village 2 Comprehensive SPA Plan**  
**Conceptual Phasing Plan**

<b>NON-RESIDENTIAL</b>																	
IND-1	IND														59.5	59.5	
IND-2	IND														8.5	8.5	
IND-3	IND														23.4	23.4	
CPF-1	CPF			1.2												1.2	
CPF-2	CPF					0.9										0.9	
CPF-8	CPF					0.5										0.5	
P-1	Park			1.4												1.4	
P-2	Park			7.1												7.1	
P-3	Park											7.6				6.9	
(Village 4) P-4	Park														46.5	46.5	
P-5	Park					5.1										5.1	
P-6	Park	2.7*														2.7	
S-1	School			10.3												10.3	
S-2	School					9.5										9.5	
<b>Subtotal</b>		2.7	0	20.0	0	16.0	0	0	0	0	0	7.6	0	91.4	46.5	183.6	0
<b>TOTAL</b>		<b>43.0</b>	<b>448</b>	<b>114.2</b>	<b>1056</b>	<b>89.4</b>	<b>975</b>	<b>38.9</b>	<b>256</b>	<b>45.0</b>	<b>1015</b>	<b>51.9</b>	<b>795</b>	<b>91.4</b>	<b>46.5</b>	<b>529.7</b>	<b>4545</b>

NOTE: Expanded portion P-3 can only be accepted for park credit if the City of San Diego waterline is relocated.

\* Expandable to 3.0 acres if necessary to meet parkland obligation.

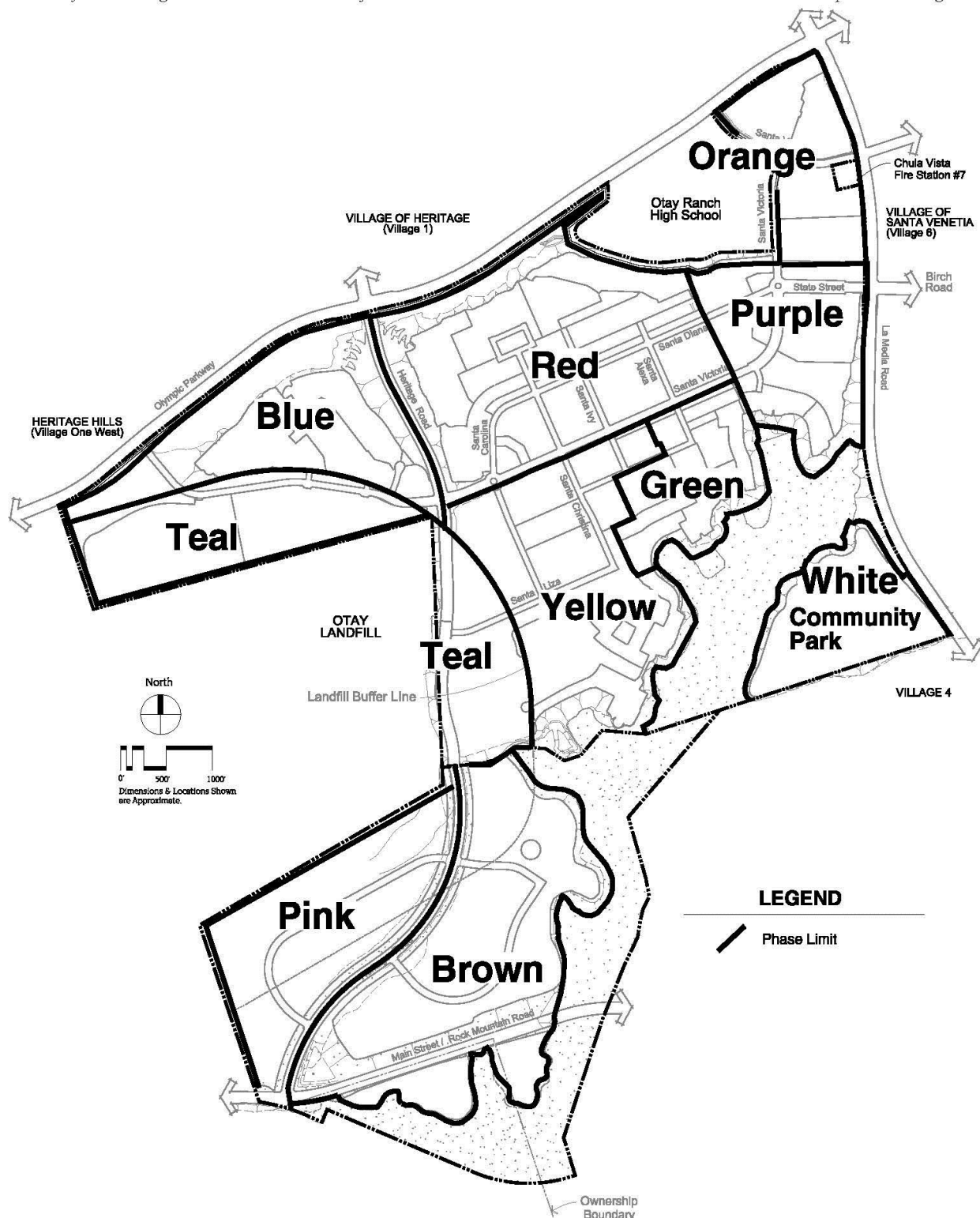
*Source: Draft Village of Montecito & Otay Ranch Business Park SPA Plan, July 2014*

**Table B.7**  
**Village 3**  
**Conceptual Phasing Plan**

<b>Land Use</b>		<b>Pink (Ac)</b>	<b>Brown (Ac)</b>	<b>Total</b>
Ind-1	Industrial	54.5		54.5
Ind-2	Industrial	26.4		26.4
Ind-3	Industrial		50.1	50.1
Ind-4	Industrial		26.4	26.4
Ind-5	Industrial		11.3	11.3
Ind-6	Industrial		7.8	7.8
<b>Subtotal</b>		80.9	95.6	176.5
Other				-
CPF-6			10.2	10.2
<b>TOTAL</b>		80.9	105.8	186.7

*Source: Draft Village of Montecito & Otay Ranch Business Park SPA Plan, July 2014*

<sup>6</sup> Acreages and dwelling unit counts are estimates only and may change during the final engineering and mapping process. The proposed numbers of Single Family and Multi-Family dwelling units in any one phase may be different from the SPA Plan.



Source: Draft Village of Montecito & Otay Ranch Business Park SPA Plan, July 2014

## Conceptual Phasing Plan Exhibit 5

The boundary between the Commercial and Multi-Use Parcels and adjacent Multi-Family parcels may be adjusted during the design review process up to a maximum of 23.9 acres of combined commercial and mixed-use zoned land. The floating CPF-4 site may be provided within the MU-2, MU-3 or C-1 parcels. The exact location shall be determined during site planning for these parcels. The process of modifying the density or intensity of development is detailed in the SPA Plan.

**II.9. Development Impact Fee Programs**

**A. Transportation**

The current Transportation Development Impact Fee (TDIF) Ordinance sets forth the calculation of development impact fees. This PFFP uses the CVMC Chapter 3.54 as the basis for the estimated TDIF fees. Table B.8 below illustrates the current fee schedule:

<b>Table B.8 TDIF Schedule</b>		
<b>Land Use Classification</b>		<b>TDIF Rate</b>
Residential (Low)	0-6 dwelling units per gross acre	\$12,494 per DU
Residential (Med.)	6.1-18 dwelling units per gross acre	\$9,995 per DU
Residential (High)	>18.1 dwelling units per gross acre	\$7,496 per DU
Senior housing		\$4,998 per DU
Residential mixed use	>18 dwelling units per gross acre	\$4,998 per DU
Commercial mixed use	< 5 stories in height	\$199,901 per 20,000 sq. ft.
General commercial (acre)	> 5 stories in height	\$199,901 per acre
Regional commercial (acre)	> 60 acres or 800,000 sq. ft.	\$137,432 per acre
High rise commercial (acre)	> 5 stories in height	\$349,826 per acre
Office (acre)	< 5 stories in height	\$112,444 per acre
Industrial RTP (acre)		\$99,958 per acre
18-hole golf course		\$874,566 per acre
Medical center		\$812,097 per acre

Source: Form 5509 10/04/2013

The total number of estimated DUs and commercial acres for the Village 2 & a Portion of 4, SPA Plan amendment is presented in Table B.3.

**B. Public Facilities**

The Public Facilities Development Impact Fee (PFDIF) was updated by the Chula Vista City Council on November 7, 2006 by adoption of Ordinance 3050. The current fee for single-family residential development is \$9,654/unit, multi-family residential is \$9,127/unit, commercial (including office) development is \$29,921/acre and industrial development is \$9,415/acre. The PFDIF amount is subject to change as it is amended from time to time. Both residential and non-residential development impact fees apply to the project. The calculations of the PFDIF due for each facility are addressed in the following sections of this report. Table B.5 provides a breakdown of what facilities the fee funds.

<b>Table B.9 Public Facilities Estimated DIF Fee Components</b>				
<b>Component</b>	<b>Single Family /DU</b>	<b>Multi-Family /DU</b>	<b>Commercial /Acre</b>	<b>Industrial /Acre</b>
<b>Civic Center</b>	\$2,756	\$2,610	\$8,792	\$2,779
<b>Police</b>	\$1,671	\$1,805	\$7,896	\$1,703
<b>Corporation Yard</b>	\$450	\$360	\$7,635	\$3,596
<b>Libraries</b>	\$1,582	\$1,582	\$0	\$0
<b>Fire Suppression</b>	\$1,393	\$1,001	\$3,681	\$731
<b>GIS, Computers, Telecom &amp; Records Management</b>	\$0	\$0	\$0	\$0
<b>Administration</b>	\$601	\$568	\$1,917	\$606
<b>Recreation</b>	\$1,201	\$1,201	\$0	\$0
<b>Total per Residential Unit</b>	<b>\$9,654</b>	<b>\$9,127</b>		
<b>Total per Com'l/Ind. Acre</b>			<b>\$29,921</b>	<b>\$9,415</b>

Source: Form 5509 10/04/2013

C. Otay Ranch Pedestrian DIF Program

The Otay Ranch Pedestrian Bridge Program calls for two bridges connecting to Village 2 (Otay Ranch Pedestrian DIF Program per Ordinance No. 2842). The West Olympic Parkway Pedestrian Over-crossing (POC) between Village 1 and the Otay Ranch High School has been constructed. The other bridge located at South La Media POC between Village 2 and Village 6 at the intersection of Santa Venetia and La Media will be required to be constructed with the development of the Village 2 Comprehensive SPA Plan. The financing for approximately half of the uncompleted POC has already been provided by the Village 6 project.

### III. 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 growth management threshold standards; the Civic Center and Corporation Yard do not. Table B.6 highlights the level of analysis for each facility.

<b>Facility</b>	<b>Citywide</b>	<b>East of I-805</b>	<b>Service Area Sub-basin</b>	<b>Special District</b>
Traffic		✓		
Pedestrian Bridges			✓	
Police	✓			
Fire/EMS	✓		✓	
Schools				✓
Libraries	✓			
Parks, Recreation & Open Space		✓		
Water			✓	✓
Sewer			✓	
Drainage			✓	
Air Quality	✓			
Civic Center	✓			
Corp. Yard	✓			
Fiscal	✓		✓	

Each subsection analyzes the impact of the Otay Ranch Village 2 & a Portion of 4 SPA Amendment Project based upon the adopted Quality of Life Threshold Standards. The analysis is based upon the specific goal, objective, threshold standard and implementation measures. The proposed SPA plan is used to determine facility adequacy and is referenced within the facility section.

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, SPA 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. The existing plus forecasted 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 and Recommendations subsection which proposes the appropriate conditions or mitigation to bring the facility into conformance with the threshold standard.



## **IV. TRAFFIC**

### **IV.1. GMOC Threshold Standard**

1. Citywide: 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 a 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.

Per the Otay Ranch General Development Plan, the internal village streets and roads are not expected to meet the Citywide LOS standard of "C" or better.

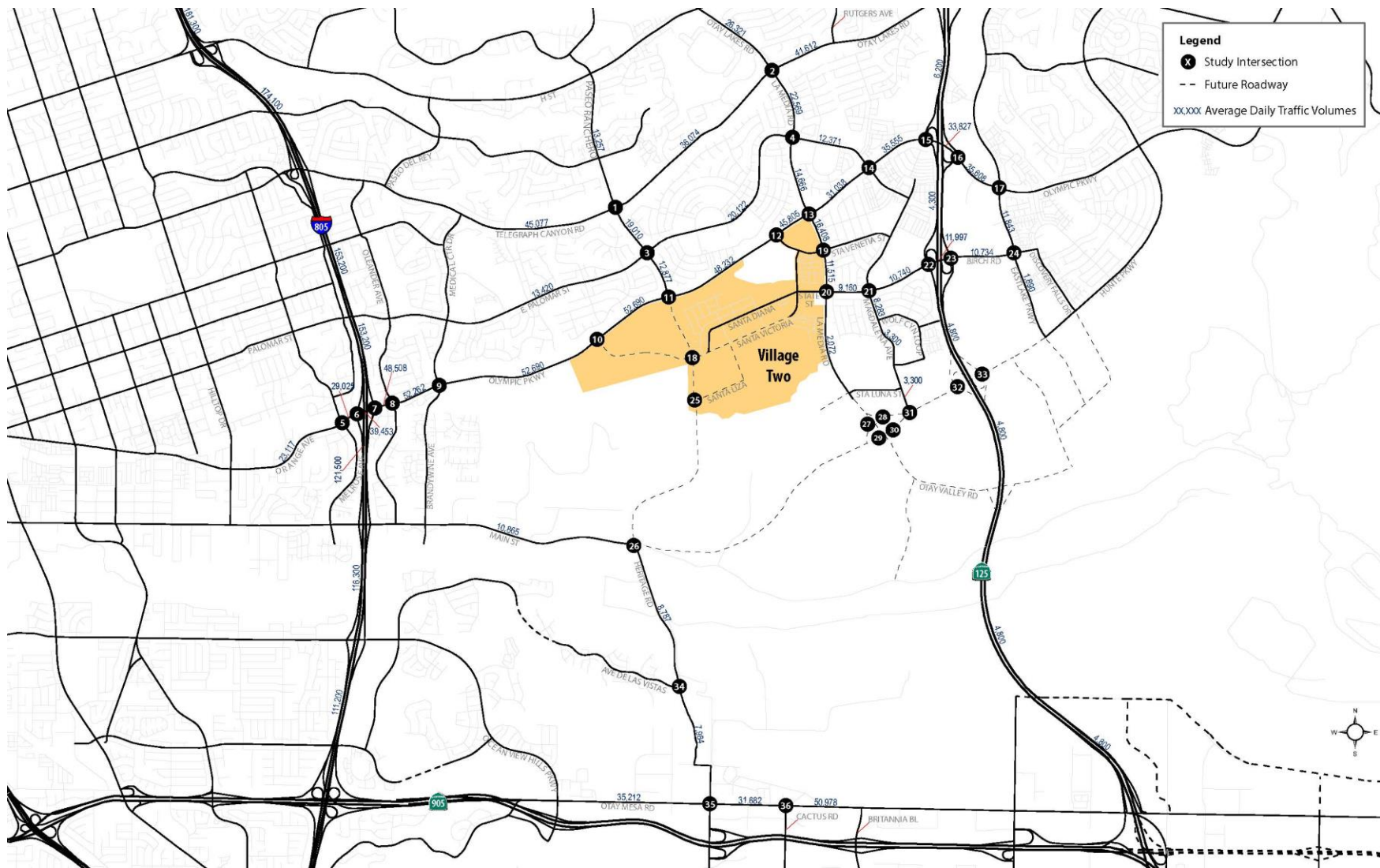
### **IV.2. Service Analysis**

The Public Works Department of the City of Chula Vista 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 LOS. To accomplish their review the Public Works Department has adopted guidelines for Traffic Impact Studies (January, 2001). These guidelines ensure uniformity in the preparation of traffic studies. Further, the guidelines assist in maintaining acceptable standards for planned new roadway segments and signalized intersections at the build out of the City's General Plan and Circulation Element. The Circulation Element of the General Plan serves as the overall facility master plan.

In conformance with requirements of the Congestion Management Program (CMP), an analysis of CMP freeways and arterials is required for any project that generates 2,400 daily or 150 peak hour trips. The *Traffic Impact Analysis Village 2 Comprehensive SPA Revised Report, March 4, 2014 by Chen + Ryan* was prepared for Baldwin & Sons to be reviewed and approved by the City of Chula Vista. This document is referred to as the "C+R TIA" throughout this PFFP. The C+R TIA is the basis of the Traffic Section of this PFFP and addresses both existing and planned circulation system conditions, details necessary improvements and outlines the incremental circulation improvements based upon planned project phasing.

The Village 2 SPA Amendment project proposes to increase land use densities from the City 2006 approved Village 2 project, thus the C+R TIA only focuses on identifying and documenting potential traffic impacts due to the increase. The C+R TIA recommends mitigation measures for any identified intersection, roadway or freeway/highway deficiency associated with the Village 2 project.

The C+R TIA analysis is based on the SANDAG Series 11 Transportation Model ("Southbay 2, Village 2" with updated Project land use and network), which was utilized to perform a Select Zone Analysis which identified the number of project-related peak hour trips distributed across the transportation network. All intersections and roadways where the proposed project would add 800 or more daily trips or 50 or more peak hour trips in either direction to the existing traffic were included as study intersections for analysis, as well as all freeway segments where the proposed project would add 2,400 or more daily trips or 150 or more peak hour trips in either direction.



**Existing Circulation Network  
Exhibit 6**

### **IV.3 Proposed Project**

Regional access to the Village 2 SPA project is currently provided by SR-125, which is located adjacent to the eastern boundary of Village Seven, approximately 0.5 miles east of the project site. Additional north-south access is provided from I-805 and I-5, located approximately 1.3 miles west and 4.5 miles west, respectively, of the project site. SR-54 and SR-905 provide regional east-west circulation, approximately 4.5 miles north and 3 miles south, respectively, of the project site. The location of Village 2 within the existing circulation network is illustrated on Exhibit 6.

The proposed Village 2 Comprehensive SPA Plan project would generate a total of 17,800 daily trips (net increase beyond the 2006 approved project) by the year 2030, including 1,457 a.m. peak hour trips, and 1,734 p.m. peak hour trips beyond what was analyzed in the 2006 EIR. A detailed discussion of traffic and circulation is provided in the Transportation, Circulation, and Access, of the Village 2 Comprehensive SPA Plan Supplemental EIR.

The proposed project requires no modifications to the circulation system that was originally approved in 2006. The primary entry points into Village 2 are from Heritage Road and La Media Road. An entry to the western portion of Village 2 is also provided from Olympic Parkway. The primary entry to Montecito from the east will be from La Media Road at Birch Road. Secondary entries are also provided from Olympic Parkway and La Media Road onto Santa Venetia, primarily to serve the Otay Ranch High School and Fire Station #7. These entries will be signalized and allow full turning movements.

The internal circulation concept provides adequate vehicular access throughout the villages with alternate routes to disperse traffic throughout the village. The internal circulation streets include Transit Village Entry, Village Entry, Secondary Village Entry, Residential Streets (Promenade), Parkway Residential and Industrial Streets, with specifically-designed streets to enhance the Montecito Village Core and Town Center areas. Traffic roundabouts are proposed as focal points at the terminuses of both the east and west village entry streets. Traffic calming features may be implemented within the circulation system at appropriate locations.

The proposed project circulation plan encourages the use of bicycles and low speed electric vehicles through the provision of Village Pathway, an off-street paved path for bicycle and low speed electric vehicle travel. The design of all village streets, sidewalks and landscaping is to promote pedestrian circulation throughout the Village 2 SPA Plan area.

The project circulation network is conceptually shown in Exhibit 7.



#### IV.4. Trip Generation and Phasing

##### IV.4.1. Project Trip Generation

According to the C+R TIA, the trip generation developed for the Village 2 project is based on the SANDAG's *Guide to Vehicular Traffic Generation Rates for the San Diego Region* (SANDAG, April 2002). Tables C.1 through C.4 display daily, as well as AM and PM peak hour project trips for each of the four development phases (2015, 2020, 2025, and 2030), respectively.

As shown in Table C.1, the proposed project would generate a total of 7,530 daily trips by Year 2015, including 527 AM peak hour trips and 738 PM peak hour trips, all of which would be generated by the Village 2 project. No development is anticipated in the portion of Village 4 that is part of the project, by 2015.

Land Use	Units	Trip Rate	Daily Trips	AM Peak Hour		PM Peak Hour	
				%	Trips	%	Trips
Single Family	138 DU	10 / DU	1,380	8	110 (33-in / 77-out)	10	138 (97-in / 41-out)
Multi-Family	556 DU	8 / DU	4,448	8	356 (71-in / 285-out)	10	445 (312-in / 134-out)
Mixed-Use Commercial	13.3 KSF	110 / KSF	1,463	3	44 (26-in / 18-out)	9	132 (66-in / 66-out)
CPF	5 AC	30 / AC	150	5	8 (5-in / 3-out)	8	12 (6-in / 6-out)
Elementary School	0.0 AC	90 / AC	0	32	0 (0-in / 0-out)	9	0 (0-in / 0-out)
Light Industrial	0.8 AC	90 / AC	72	11	9 (7-in / 1-out)	12	9 (2-in / 7-out)
Neighborhood Park	3.4 AC	5 / AC	17	4	1 (1-in / 1-out)	8	2 (1-in / 1-out)
<b>Total by 2015</b>			<b>7,530</b>		<b>527 (143-in / 385-out)</b>		<b>738 (484-in / 255-out)</b>

*Source: C+R TIA*

Land Use	Units	Trip Rate	Daily Trips	AM Peak Hour		PM Peak Hour	
				%	Trips	%	Trips
Single Family	225 DU	10 / DU	2,250	8	180 (54-in / 126-out)	10	225 (158-in / 68-out)
Multi-Family	904 DU	8 / DU	7,232	8	579 (116-in / 463-out)	10	723 (506-in / 217-out)
Mixed-Use Com'l	21.7 KSF	110/KSF	2,387	3	72 (43-in / 29-out)	9	215 (107-in / 107-out)
CPF	8.1 AC	30 / AC	243	5	12 (7-in / 5-out)	8	19 (10-in / 10-out)
Elementary School	9.5 AC	90 / AC	885	32	274 (164-in / 10-out)	9	77 (31-in / 46-out)
Light Industrial	1.2 AC	90 / AC	108	11	12 (11-in / 1-out)	12	13 (3-in / 10-out)
Neighborhood Park	5.5 AC	5 / AC	28	4	1 (1-in / 1-out)	8	2 (1-in / 1-out)
<b>Total by 2020</b>			<b>13,103</b>		<b>1,129 (396-in / 734-out)</b>		<b>1,275 (816-in / 459-out)</b>

*Source: C+R TIA*

As shown in Table C.2, the proposed project would generate a total of 7,530 daily trips by Year 2015, including 527 AM peak hour trips and 738 PM peak hour trips.

As shown in Table C.2, the proposed project would generate a total of 13,103 daily trips by the Year 2020, including 1,129 AM peak hour trips and 1,275 PM peak hour trips.

Land Use	Units	Trip Rate	Daily Trips	AM Peak Hour		PM Peak Hour	
				%	Trips	%	Trips
Single Family	311 DU	10 / DU	3,110	8	249 (75-in / 174-out)	10	311 (218-in / 93-out)
Multi-Family	1251 DU	8 / DU	10,008	8	801 (160-in / 641-out)	10	1,001 (701-in / 300-out)
Mixed-Use Com'l	30 KSF	110/KSF	3,300	3	99 (59-in / 40-out)	9	297 (149-in / 149-out)
CPF	11.2 AC	30 / AC	336	5	17 (10-in / 7-out)	8	27 (13-in / 13-out)
Elementary School	9.5 AC	90 / AC	885	32	274 (164-in / 109-out)	9	77 (31-in / 46-out)
Light Industrial	1.7 AC	90 / AC	153	11	17 (15-in / 2-out)	12	18 (4-in / 15-out)
Neighborhood Park	7.6 AC	5 / AC	38	4	2 (1-in / 1-out)	8	3 (2-in / 2-out)
<b>Total by 2025</b>			<b>17,800</b>		<b>1,457 (484-in / 974-out)</b>		<b>1,734 (1,118-in / 618-out)</b>

*Source: C+R TIA*

As shown in Table C.3, the proposed project would generate a total of 17,800 daily trips by Year 2025, including 1,457 AM peak hour trips and 1,734 PM peak hour trips. All of the proposed land uses would be developed by year 2025.

Land Use	Units	Trip Rate	Daily Trips	AM Peak Hour		PM Peak Hour	
				%	Trips	%	Trips
Single Family	311 DU	10 / DU	3,110	8	249 (75-in / 174-out)	10	311 (218-in / 93-out)
Multi-Family	1251 DU	8 / DU	10,008	8	801 (160-in / 641-out)	10	1,001 (701-in / 300-out)
Mixed-Use Com'l	30 KSF	110/KSF	3,300	3	99 (59-in / 40-out)	9	297 (149-in / 149-out)
CPF	11.2 AC	30 / AC	336	5	17 (10-in / 7-out)	8	27 (13-in / 13-out)
Elementary School	9.5 AC	90 / AC	885	32	274 (164-in / 109-out)	9	77 (31-in / 46-out)
Light Industrial	1.7 AC	90 / AC	153	11	17 (15-in / 2-out)	12	18 (4-in / 15-out)
Neighborhood Park	7.6 AC	5 / AC	38	4	2 (1-in / 1-out)	8	3 (2-in / 2-out)
<b>Total by 2030</b>			<b>17,800</b>		<b>1,457 (484-in / 974-out)</b>		<b>1,734 (1,118-in / 618-out)</b>

*Source: C+R TIA*

As shown in Table C.4, the proposed project would generate a total of 17,800 daily trips by the Year 2030, including 1,457 AM peak hour trips and 1,734 PM peak hour trips.

**IV.4.2. Phasing Reconciliation**

The Village 2 SPA Plan development phasing will be concurrent with the provision of adequate road capacity and access improvements. These improvements have been phased and designed to maintain an adequate level of service in the circulation system serving the SPA Plan area throughout the development process. The provision of adequate internal circulation improvements will be controlled via subdivision map conditions.

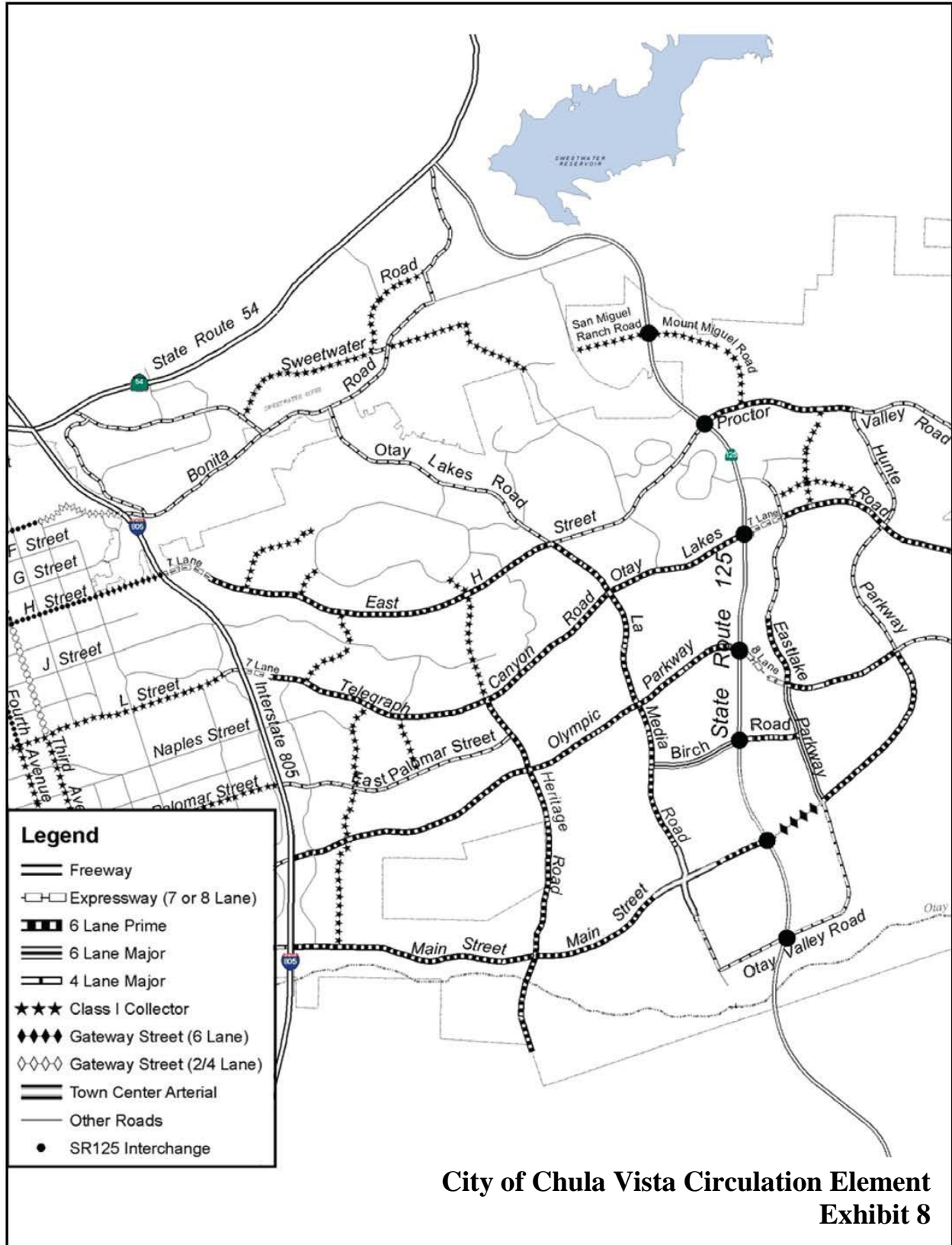
<b>Year</b>	<b>Assumed Project</b>
<b>2015</b>	7,530 ADT
<b>2020</b>	13,103 ADT
<b>2025</b>	17,800 ADT
<b>2030</b>	17,800 ADT

*Source: C+R TIA*

The phasing presented in the SPA Plan is non-sequential. The ADT Phasing presented in this PFFP may be subject to change depending upon meeting certain thresholds. Actual project phasing will be determined during the Final Engineering and Mapping process. All project phases shall be consistent with the PFFP Thresholds. These thresholds have been analyzed in the C+R TIA and presented in the project EIR and this PFFP.

**Chula Vista Circulation Element**

The City Council recently certified the Supplemental Environmental Impact Report (SEIR) and adopted the related Amendments to the City of Chula Vista General Plan (GPA-09-01) and Otay Ranch General Development Plan (PCM-09-11). The adopted Circulation Element is shown in Exhibit 8. The C+R TIA analyzed the City’s Circulation Element and recommended no changes based on average daily trips (ADT) and the trigger points for needed improvements.





**IV.4.3. PFFP Assessment**

The purpose of this Public Facilities Financing Plan (PFFP) assessment is to determine on-site and off-site improvement triggers required for the proposed project. Subsequent Section A discusses on-site and adjacent facilities needed based on access and frontage. Section B discusses Equivalent Dwelling Units (EDUs) associated with each of the mitigation measures identified in C+R TIA Chapters 6.0 through 9.0 (analysis years 2015, 2020, 2025, and 2030).

**A. Access / Frontage Thresholds**

Based on the C+R TIA, the facilities presented in this section are required. This requirement is based on frontage development not traffic generation. These roadways must be built when the land uses fronting the roads are developed to provide sufficient number of access points according to the City’s Subdivision Manual.

The Subdivision Manual requires that “single family residential development shall not exceed 120 residential lots unless two points of access are provided and shall not exceed 200 residential lots unless three points of access are provided”. The project applicant may also conduct a traffic study (prior to the 201st EDU) which shows traffic operations with one or two access points are sufficient from an LOS perspective and a Fire/Emergency Response standpoint, to serve individual neighborhoods to the satisfaction of the Development Services Director. Table C.6 summarizes the PFFP thresholds for Village 3 North based on frontage and access requirements.

<b>Table C.6 Village 2 Comprehensive SPA Project Frontage &amp; Access</b>			
<b>Neighborhood</b>	<b>Frontage/Internal Streets</b>	<b>Primary Access<sup>1</sup></b>	<b>Secondary Access<sup>2,3</sup></b>
R-4B(a)	<ul style="list-style-type: none"> <li>• Occidental Rd (Brinkerhoff to east terminus)</li> <li>• Barranca Ave</li> <li>• Concow Valley Ct</li> <li>• Terstal Ct</li> <li>• Natoma Road</li> <li>• Santa Victoria Rd (entry street to Brinkerhoff Ave)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Heritage Rd to Natoma Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Brinkerhoff Ave</li> <li>• Santa Victoria (Brinkerhoff Ave to Olympic Pkwy)</li> </ul>
R-4B(b)	<ul style="list-style-type: none"> <li>• R-4B(a) plus</li> <li>• Internal private streets</li> </ul>	<ul style="list-style-type: none"> <li>• entry street</li> <li>• Santa Victoria Rd (Heritage Rd to entry street)</li> </ul>	<ul style="list-style-type: none"> <li>• Hope Ranch Road (Occidental Rd to neighborhood boundary)</li> <li>• Occidental Rd (Hope Ranch Rd to Brinkerhoff Ave)</li> <li>• Brinkerhoff Ave</li> <li>• Santa Victoria (Brinkerhoff Ave to Olympic Pkwy)</li> </ul>
R-5B	<ul style="list-style-type: none"> <li>• Pershing Road (Santa Alexia Ave to Stow Grove Ave)</li> <li>• Alley along expanded area</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>
R-8C	<ul style="list-style-type: none"> <li>• Stow Grove Ave (R-8a boundary to Pershing Road)</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>	<ul style="list-style-type: none"> <li>• Pershing Rd (Santa Alexia Ave to Stow Grove Ave)</li> </ul>

**Table C.6  
Village 2 Comprehensive SPA Project Frontage & Access**

<b>Neighborhood</b>	<b>Frontage/Internal Streets</b>	<b>Primary Access<sup>1</sup></b>	<b>Secondary Access<sup>2,3</sup></b>
R-9B	<ul style="list-style-type: none"> <li>• Santa Alexia Avenue (Pershing Rd to Carpinteria St)</li> <li>• Pershing Road (Santa Alexia Ave to Stow Grove Ave)</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>
R-10a/b	<ul style="list-style-type: none"> <li>• Alley along expanded area</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>
R-11	<ul style="list-style-type: none"> <li>• Santa Alexia Ave (Santa Diana Rd to Santa Victoria Rd)</li> <li>• Santa Victoria Rd (Santa Alexia Ave to eastern boundary of neighborhood)</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>
R-12	<ul style="list-style-type: none"> <li>• Internal private streets</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>
R-15B	<ul style="list-style-type: none"> <li>• Ortega Road (western neighborhood boundary to Anapamu Ave)</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>	<ul style="list-style-type: none"> <li>• existing</li> </ul>
R-16B	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Ivy Ave to Santa Alexia Ave)</li> <li>• South alley (Santa Ivy Ave to Santa Alexia Ave)</li> <li>• Santa Ivy Ave (Santa Victoria Rd to south alley)</li> <li>• Santa Alexia Ave (Santa Victoria Rd to south alley)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Alexia Ave to Anapamu Ave)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Ivy Ave to Santa Carolina Rd)</li> </ul>
R-17B(a)	<ul style="list-style-type: none"> <li>• Ortega Rd (Santa Ivy Ave to Santa Alexia Ave)</li> <li>• Keck St (Santa Ivy Ave to Santa Alexia Ave)</li> <li>• Northern alley</li> <li>• Central alley</li> <li>• Santa Ivy Ave (Santa Victoria Rd to Keck St)</li> <li>• Santa Alexia Ave (Santa Victoria Rd to Keck St)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Alexia Ave to Anapamu Ave)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Ivy Ave to Santa Carolina Rd)</li> </ul>
R-17B(b)	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Christina Ave to Santa Ivy Ave)</li> <li>• Keck St (Santa Christina Ave to Santa Ivy Ave)</li> <li>• Santa Christina Ave (Santa Victoria Rd to Keck St)</li> <li>• Santa Ivy Ave (Santa Victoria Rd to Keck St)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Christina Ave to Santa Carolina Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Ivy Ave to Anapamu Ave)</li> </ul>
R-18A(b)	<ul style="list-style-type: none"> <li>• Keck St (Santa Alexia Ave to La Cumbre Ave)</li> <li>• Mulligan Hill St (western neighborhood boundary to La Cumbre Ave)</li> <li>• La Cumbre (Mulligan Hill St to Keck St)</li> </ul>	<ul style="list-style-type: none"> <li>• Ortega Rd (La Cumbre Ave to Anapamu Ave)</li> <li>• La Cumbre (Keck St to Ortega Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Alexia Ave (Santa Diana Rd to Keck St)</li> </ul>

**Table C.6  
Village 2 Comprehensive SPA Project Frontage & Access**

Neighborhood	Frontage/Internal Streets	Primary Access <sup>1</sup>	Secondary Access <sup>2,3</sup>
R-18B(b)	<ul style="list-style-type: none"> <li>• Stearns Wharf St (western neighborhood boundary to La Cumbre Ave)</li> <li>• La Cumbre (Stearns Wharf St to Mulligan Hill St)</li> </ul>	<ul style="list-style-type: none"> <li>• La Cumbre (Mulligan Hill St to Ortega Rd)</li> <li>• Ortega Rd (La Cumbre Ave to Anapamu Ave)</li> </ul>	<ul style="list-style-type: none"> <li>• Stearns Wharf St (western neighborhood boundary to Santa Christina Ave)</li> <li>• Santa Christina Ave (Stearns Wharf St to Santa Liza St)</li> <li>• Santa Liza St</li> </ul>
R-19B	<ul style="list-style-type: none"> <li>• Santa Christina Ave (Keck St to Stearns Wharf Rd)</li> <li>• Keck St (Santa Christina Ave to eastern neighborhood boundary)</li> <li>• Stearns Wharf St (Santa Christina Ave to eastern neighborhood boundary)</li> <li>• Tuckers Grove Ave</li> <li>• Internal alleys</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Christina Ave (Keck St to Santa Victoria Rd)</li> <li>• Santa Victoria Rd (Santa Christina Ave to Santa Carolina Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Christina Ave (Stearns Wharf St to Santa Liza St)</li> <li>• Santa Liza St</li> <li>• Heritage Rd (Santa Liza St to Santa Victoria Rd)</li> </ul>
R-20	<ul style="list-style-type: none"> <li>• Santa Christina Ave (south of Stearns Wharf St)</li> <li>• Ashley Ave</li> <li>• Lavigia Dr.</li> <li>• Gibraltar St (Lavigia Dr. to Santa Christina Ave)</li> <li>• Santa Liza St (Lavigia Dr. to Santa Christina Ave)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Liza St (Lavigia Dr. to Heritage Rd)</li> <li>• Heritage Rd (Santa Liza St to Santa Victoria Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Christina Ave (Stearns Wharf St to Santa Victoria Rd)</li> <li>• Santa Victoria Rd (Santa Christina Ave to Santa Carolina Rd)</li> </ul>
R-21B	<ul style="list-style-type: none"> <li>• Solvang Rd</li> <li>• Copper Creek Ave (south of Solvang Rd)</li> <li>• Paterna Dr. (west terminus to northern neighborhood boundary)</li> <li>• Gibraltar St (west of Copper Creek Road)</li> </ul>	<ul style="list-style-type: none"> <li>• Gibraltar St (Copper Creek Ave to Lavigia Dr.)</li> <li>• Lavigia Dr. (north of Gibraltar St)</li> <li>• Santa Liza Street (Lavigia Dr. to Heritage Rd)</li> <li>• Heritage Rd (Santa Liza St to Santa Victoria Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Christina Ave (Santa Victoria Rd to Paterna Dr.)</li> <li>• Santa Victoria Rd (Santa Christina Ave to Santa Carolina Rd)</li> </ul>
R-23	<ul style="list-style-type: none"> <li>• Belvedere St</li> <li>• Birnam Wood Rd</li> <li>• El Paso Pl</li> <li>• Solvang Rd</li> <li>• Copper Creek Ave</li> <li>• Karpeles Rd</li> <li>• Gibraltar St (Copper Creek Ave to Lavigia Dr.)</li> <li>• Santa Carolina Ave (Birnam Wood Rd to Solvang Rd)</li> <li>• Lavigia Dr. (Santa Liza St to Birnam Wood Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Liza Street (Lavigia Dr. to Heritage Rd)</li> <li>• Heritage Rd (Santa Liza St to Santa Victoria Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Gibraltar St (Copper Creek Ave to Santa Christina Ave)</li> <li>• Santa Christina Ave (Santa Victoria Rd to Copper Creek Ave)</li> <li>• Santa Victoria Rd (Santa Christina Ave to Santa Carolina Rd)</li> </ul>
R-24	<ul style="list-style-type: none"> <li>• Santa Liza St (Lavigia Dr. to western neighborhood boundary)</li> <li>• Belvedere Street</li> <li>• Central alley</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Liza St (western neighborhood boundary to Heritage Rd)</li> <li>• Heritage Rd (Santa Liza St to Santa Victoria Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• No secondary access required</li> </ul>

**Table C.6  
Village 2 Comprehensive SPA Project Frontage & Access**

Neighborhood	Frontage/Internal Streets	Primary Access <sup>1</sup>	Secondary Access <sup>2,3</sup>
R-25A	<ul style="list-style-type: none"> <li>• Santa Liza St (Santa Carolina Rd to Heritage Rd)</li> <li>• Santa Carolina Rd (Santa Liza St to Santa Victoria Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Provided by frontage</li> </ul>	<ul style="list-style-type: none"> <li>• Heritage Rd (Santa Liza St to Santa Victoria Rd)</li> </ul>
R-27	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Christina Ave to Santa Carolina Rd)</li> <li>• Santa Carolina Rd (Santa Victoria Rd to southern neighborhood boundary)</li> <li>• Santa Christina Ave (Santa Victoria Rd to Keck St)</li> </ul>	<ul style="list-style-type: none"> <li>• Provided by frontage</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Santa Christina Ave to Anapamu Ave)</li> </ul>
R-31	<ul style="list-style-type: none"> <li>• Existing</li> </ul>	<ul style="list-style-type: none"> <li>• Existing</li> </ul>	<ul style="list-style-type: none"> <li>• Existing</li> </ul>
Industrial 1b	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (Olympic Pkwy to eastern boundary)</li> </ul>	<ul style="list-style-type: none"> <li>• Provided by frontage</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Victoria Rd (eastern boundary to Heritage Rd)</li> </ul>
In 2	<ul style="list-style-type: none"> <li>• Heritage Rd (Santa Liza St to Santa Victoria Rd)</li> <li>• Santa Liza St (Heritage Rd to Santa Carolina Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Provided by frontage</li> </ul>	<ul style="list-style-type: none"> <li>• Provided by frontage</li> </ul>
Industrial 3	<ul style="list-style-type: none"> <li>• Heritage Rd (Santa Liza St to southern boundary)</li> <li>• Santa Liza St (Heritage Rd to Santa Carolina Rd)</li> </ul>	<ul style="list-style-type: none"> <li>• Provided by frontage</li> </ul>	<ul style="list-style-type: none"> <li>• Provided by frontage</li> </ul>

Notes:  
<sup>1</sup> Primary access identified is one possible route. Alternative access may be provided subject to the approval of the Director of Development Services.  
<sup>2</sup> Secondary accesses are required when more than 120 units are served by the primary access. The identified secondary access is one possible route; alternative secondary access may be provided subject to the approval of the Director of Development Services.  
<sup>3</sup> If total units utilizing either the primary or secondary routes of access exceed 200, a third access may be required, subject to the approval of the Director of Development Services.

*Source: C+R TIA*

**B. Equivalent Dwelling Units Thresholds**

The off-site roadway and intersection improvements that are needed are primarily based on the traffic generation analysis found in the C+R TIA. Further, they are associated with each of the mitigation measures identified from the Year 2015, 2020, 2025, and 2030 C+R TIA analyses.

The EDU triggers were developed by Chen Ryan by:

1. Determining the project trip distribution percentages at each of the impacted intersection or roadway locations;
2. Establishing a trip generation threshold by adding peak hour and corresponding daily project traffic to the subject location until a direct or cumulative impact occurs; and
3. Converting the identified project trip generation from Step 2 into EDU.

Appendix U from the C+R TIA documents how the EDU triggers were determined for each of the recommended mitigation measures. Table C.7 summarizes the required mitigation measures and their associated EDU triggers.

**Table C.7  
EDU Triggers to Recommended Mitigation Measures**

<b>Location</b>	<b>Mitigation Measure</b>	<b>Analysis Year</b>	<b>EDU Trigger</b>
<b>Intersection</b>			
11. Heritage Road / Olympic Parkway	Payment towards TDIF (for the construction of Main Street)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA
13. La Media Road / Olympic Parkway	Payment towards TDIF (for the construction of Main Street)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA
26. Heritage Road / Main Street	Payment towards TDIF (for Signalization)	2015	First final map that contain the 1 <sup>st</sup> EDU of Village 2 Comprehensive SPA with Heritage Road connection to Main Street
27. La Media Road (SB) / Main Street (WB)	Payment towards TDIF (for Signalization)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA
28. La Media Road (NB) / Main Street (WB)	Payment towards TDIF (for Signalization)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA
29. La Media Road (SB) / Main Street (EB)	Payment towards TDIF (for Signalization)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA
30. La Media Road (NB) / Main Street (EB)	Payment towards TDIF (for Signalization)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA
31. Magdalena Avenue / Main Street	Payment towards TDIF (for Signalization)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA
<b>Roadway Segment</b>			
Olympic Parkway between Heritage Road and Santa Venetia Street	Payment towards TDIF (for construction of Main Street)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA
Heritage Road between East Palomar Street and Olympic Parkway	Payment towards TDIF (for construction of Main Street)	2025	First final map that contain the 1,311 <sup>th</sup> EDU of Village 2 Comprehensive SPA

*Source: C+R TIA*

**IV.5. Cost & Financing Traffic Improvements**

**A. Street Improvements**

The Otay Ranch Village 2 Comprehensive SPA internal streets and associated signalization, if required, are the financial responsibility of the Developer/Builder (see Table C.7). Off-site streets and signal improvements are subdivision exactions. The required development phasing is based on the project C+R TIA.

**B. Transportation Development Impact Fee (TDIF)**

The project is within the boundaries of the TDIF program and, as such, the project is subject to the payment of the fees at the rates in effect at the time building permits are issued. However, the improvements identified on Table C.7 are required to be constructed according to the approved EDU Triggers. The TDIF 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 TDIF fees as indicated below, the owner/developer may be given credits toward future building permits outside of the SPA area.

The current Transportation Development Impact Fee (TDIF) Ordinance sets forth the calculation of development impact fees. This PFFP uses the CVMC Chapter 3.54 as the basis for the estimated TDIF fees. Table B.8 illustrates the fee schedule at the time of this PFFP preparation:

Table C.8 presents the net increase (see Table B.3) for the SPA Amendment only and does not include the originally Approved SPA DUs and Commercial/Industrial acreages. The SPA Amendment proposes a maximum of 130,000 of Commercial square footage. The table is provided as an estimate only. Fees may change depending upon the actual number dwelling units, the actual acreage for commercial and industrial land and the current city fee, which is subject to change from time to time. Final calculations will be known at time building permits are applied for.

<b>Table C.8</b>				
<b>Village 2 Comprehensive SPA Estimated TDIF Fees<sup>7</sup></b>				
<b>Land Use</b>	<b>Dwelling Units</b>	<b>Com'l S.F.</b>	<b>Fee</b>	<b>Total Fees</b>
	-70		\$12,494/DU	-874,580
Multi-Family	1632		\$9,995/DU	\$16,311,840
Mixed Use & Commercial		130,000 s.f.	\$199,901/20K s.f.	1,299,356
<b>Total</b>	<b>1562</b>			<b>\$16,736,616</b>

<sup>7</sup> Estimated TDIF is based on the Revised November 7, 2013, City of Chula Vista Development Checklist for Municipal Code Requirements (Form 5509) and is subject to annual adjustments. Actual TDIF may be different.

**C. Traffic Signal Fee**

Future development within the project will be required to pay Traffic Signal Fees in accordance with Chula Vista Council Policy No. 475-01. The estimated fee is calculated based on the current fee of \$34.27 (the date of this PFFP) per vehicle trip generated per day for various land use categories. Table C.9 is provided as an estimate only. Fees may change depending upon the actual number dwelling units, the actual acreage for commercial and industrial land and the current city fee, which is subject to change from time to time. Final calculations will be known at time building permits are applied for.

<b>Table C.9 Village 2 Comprehensive SPA Estimated Traffic Signal Fees<sup>8</sup></b>		
<b>Year</b>	<b>Project Trips</b>	<b>Traffic Signal Fee @ \$34.27/Trip</b>
2015	7,530	\$258,053
2020	5,573	\$190,987
2025	4,697	\$160,966
2030	0	\$0
<b>Total</b>	<b>17,800</b>	<b>\$610,006</b>

**D. Non-DIF Streets and Signals**

Internal public streets and signals are not eligible for DIF credit pursuant to city policy. These streets and signals will be funded by the development.

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<sup>8</sup> Estimated Traffic Signal Fee is based on the Revised November 7, 2013, City of Chula Vista Development Checklist for Municipal Code Requirements (Form 5509) and is subject to annual adjustments. Trips are estimated, based on the C+R TIA, actual trips and Traffic Signal Fees may be different.

#### **IV.6. Threshold Compliance and Requirements**

- A. The facilities presented in Table C.7 are needed, based on frontage development. These roadways need to be built when the land uses fronting the roads are developed in order to provide sufficient number of access points according to the City's Subdivision Manual.
- B. The Subdivision Manual requires that "single family residential development shall not exceed 120 residential lots unless two points of access are provided and shall not exceed 200 residential lots unless three points of access are provided". The project applicant will conduct a traffic study (prior to the 201<sup>st</sup> EDU) which shows traffic operations with one or two access points are sufficient from an LOS perspective to serve the village and to the satisfaction of the City Engineer.
- C. Threshold compliance will continue to be monitored through the annual intersection-monitoring program and the Eastern Chula Vista Transportation Phasing Plan updates.
- D. The project shall be conditioned to pay TDIF Fees and Traffic Signal Fees at the rate in effect at the time building permits are issued.
- E. Table C.7 summarizes the required mitigation measures and their associated Equivalent Dwelling Units (EDU) triggers.
- F. Table C.10 summarizes the significant traffic impacts and associated required mitigation measures from the Supplemental EIR for Otay Ranch Village 2 Comprehensive SPA Plan.
- G. In addition to the identified thresholds, it is recommended that the City of Chula Vista require the following prior to issuance of each final map:
  - Owner/Developer shall be responsible for assuring right-of-way improvements (curb, gutter, street, sidewalk, landscape, and traffic controls) necessary for vehicular and pedestrian connection from the subject map area to existing public roadways. Connection shall be provided to the satisfaction of the City Engineer.
  - Owner/Developer shall be responsible for assuring enhancements within the right-of-way (landscaping, pedestrian lighting, and street furniture) which abut the subject map area.
  - Owner/Developer shall be responsible for assuring all in-tract improvements within the subject map area.
  - Owner/Developer shall be responsible for assuring enhancements outside the right-of-way and internal to the subject map area (open space lots, landscape and irrigation of slopes).
  - Prior to issuance of final map, Owner/Developer shall assure applicable off-site infrastructure improvements (storm drains, water quality facilities) which are sized to serve subject map area.
  - The owner/developer for any individual neighborhood shall be required to post or provide use of surety bonds which secure the Owner/Developer's construction cost of the infrastructure requirements identified above. The bond shall be for the value of improvements necessary to complete approved public improvements. Permission to use existing, approved improvement plans and bonds shall be an acceptable means of satisfying the above listed requirements, to the satisfaction of the city engineer.



Additional notes:

- Modification to any of the above listed requirements requires approval by the City Engineer.
- Final map phases of subject the tentative maps shall include all remaining in-tract improvements and shall not be less than 10 units.

H. Requirements:

1. Prior to the first final 'B' map, developer shall agree to physically grade all industrial property in Village Two South to the satisfaction of the Director of Development Services, prior to the final map proposing their 2,000<sup>th</sup> unit in Village 2.
2. Prior to the first final map for the project, applicant shall agree to construct a minimum of two lanes of Heritage Road from Olympic Parkway to Main Street prior to issuance of the Applicant's 155<sup>th</sup> building permit in Village 2 sewerage south (toward Main Street), to the satisfaction of the Director of Development Services.
3. Prior to the first final map for the project developer shall agree not to protest the formation of a reimbursement district for the construction of non-TDIF eligible improvements associated with the construction of Heritage Road.
4. Prior to the first final map, developer shall agree to construct the pedestrian bridge from Village 2 to Village 6, to the satisfaction of the Director of Development Services prior to the final map proposing their 2,800<sup>th</sup> unit within Village 2.
5. Prior to the first final 'B' map for MU-2, MU-3, or C-1, developer shall agree to the widen State Street prior to the first certificate of occupancy on either adjacent lot, to the satisfaction of the Director of Development Services.

**Table C.10  
Summary of Significant Impacts and Mitigation Measures**

<b>Impacted Facility/ Mitigation Measure</b>	<b>Note</b>	<b>Year 2015 Plus Project</b>	<b>Year 2020 Plus Project</b>	<b>Year 2025 Plus Project</b>	<b>Year 2030 Plus Project</b>
<i>Intersection</i>					
I-805 SB Ramps / Olympic Parkway  <b>TCA-1, TCA-7, TCA- 14</b>	Type of Impact	—	Cumulative	Cumulative	Cumulative
	Mitigation Measure	—	No feasible mitigation, impact remains significant and unmitigable	No feasible mitigation, impact remains significant and unmitigable	No feasible mitigation, impact remains significant and unmitigable
	Pre-Mitigation LOS (AM/PM)	—	E / F	D / F	D / F
	Trigger	—	---	—	—
	Post Mitigation LOS (AM/PM)	—	---	—	—
Heritage Road / Olympic Parkway  <b>TCA- 3</b>	Type of Impact	—	—	Project Specific	—
	Mitigation Measure	—	—	Payment towards TDIF for the construction of Main Street	—
	Pre-Mitigation LOS (AM/PM)	—	—	E / E	—
	Trigger	—	—	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS (AM/PM)	—	—	D / D	—
La Media Road / Olympic Parkway  <b>TCA- 5</b>	Type of Impact	—	—	Cumulative	—
	Mitigation Measure	—	—	Payment towards TDIF for the construction of Main Street	—
	Pre-Mitigation LOS (AM/PM)	—	—	E / D	—
	Trigger	—	—	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS (AM/PM)	—	—	D / D	—
La Media Road (SB) / Main Street (WB)  <b>TCA- 6</b>	Type of Impact	—	---	Cumulative	—
	Mitigation Measure	—	---	Payment towards TDIF for Construction of Main St.	—
	Pre-Mitigation LOS (AM/PM)	—	---	E / E	—
	Trigger	—	----	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS (AM/PM)	—	---	A / A	—
<b>Table C.10 Continued Summary of Significant Impacts and Mitigation Measures</b>					

Impacted Facility/ Mitigation Measure	Note	Year 2015 Plus Project	Year 2020 Plus Project	Year 2025 Plus Project	Year 2030 Plus Project
<i>Intersection</i>					
La Media Road (NB) / Main Street (WB)  <b>TCA- 7</b>	Type of Impact	—	---	Cumulative	—
	Mitigation Measure	—	---	Payment towards TDIF for Signalization	—
	Pre-Mitigation LOS (AM/PM)	—	---	<b>E / E</b>	—
	Trigger	—	---	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS (AM/PM)	—	---	A / A	—
La Media Road (SB) / Main Street (EB)  <b>TCA- 7</b>	Type of Impact	—	---	Cumulative	—
	Mitigation Measure	—	---	Payment towards TDIF for Signalization	—
	Pre-Mitigation LOS (AM/PM)	—	---	<b>E / E</b>	—
	Trigger	—	---	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS (AM/PM)	—	---	A / A	—
La Media Road (NB) / Main Street (EB) (all-way stop controlled)  <b>TCA- 9</b>	Type of Impact	—	---	Cumulative	—
	Mitigation Measure	—	---	Payment towards TDIF for Signalization	—
	Pre-Mitigation LOS (AM/PM)	—	---	<b>E / E</b>	—
	Trigger	—	---	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS (AM/PM)	—	---	A / A	—
Magdalena Avenue / Main Street  <b>TCA-10</b>	Type of Impact	—	---	Cumulative	—
	Mitigation Measure	—	---	Payment towards TDIF for Signalization	—
	Pre-Mitigation LOS (AM/PM)	—	---	<b>E / E</b>	—
	Trigger	—	---	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS (AM/PM)	—	---	B / B	—

**Table C.10 Continued**  
**Summary of Significant Impacts and Mitigation Measures**

<b>Impacted Facility/ Mitigation Measure</b>	<b>Note</b>	<b>Year 2015 Plus Project</b>	<b>Year 2020 Plus Project</b>	<b>Year 2025 Plus Project</b>	<b>Year 2030 Plus Project</b>
<i>Roadway Segment</i>					
Orange Avenue, between Melrose Avenue and I-805 SB Ramps  <b>TCA-2, TCA-12 TCA-15</b>	Type of Impact	—	Cumulative	Cumulative	Cumulative
	Mitigation Measure	—	No feasible mitigation, impact remains significant and unmitigable	No feasible mitigation, impact remains significant and unmitigable	No feasible mitigation, impact remains significant and unmitigable
	Pre-Mitigation LOS	—	<b>D</b>	<b>D</b>	<b>E</b>
	Trigger	—	—	—	—
	Post Mitigation LOS	—	—	—	—
		-		-	-
		-		-	-
		-		-	-
		-		-	-
		-	-	-	-
		-		-	-
		-	-	-	-
		-	-	-	-
		-	-	-	-

*Source: Supplemental EIR for Otay Ranch Village 2 Comprehensive SPA*

**Table C.10 Continued**  
**Summary of Significant Impacts and Mitigation Measures**

<b>Impacted Facility/ Mitigation Measure</b>	<b>Note</b>	<b>Year 2015 Plus Project</b>	<b>Year 2020 Plus Project</b>	<b>Year 2025 Plus Project</b>	<b>Year 2030 Plus Project</b>
		-		-	-
		-		-	-
		-		-	-
		-	-	-	-
		-	-	-	-
Olympic Parkway, between Heritage Road and Santa Venetia Street  <b>TCA-16</b>	Type of Impact	—	—	Cumulative	—
	Mitigation Measure	—	—	Payment towards TDIF for the construction of Main Street, between Heritage Road and La Media Road	—
	Pre-Mitigation LOS	—	—	<b>D</b>	—
	Trigger	—	—	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS	—	—	<b>B</b>	—
Heritage Road, between East Palomar Street and Olympic Parkway  <b>TCA-11</b>	Type of Impact	—	—	Project Specific	—
	Mitigation Measure	—	—	Payment towards TDIF for the construction of Main Street, between Heritage Road and La Media Road	—
	Pre-Mitigation LOS	—	—	<b>D</b>	—
	Trigger	—	—	1st Final Map that contains the 1311th EDU of Village 2 Comp SPA	—
	Post Mitigation LOS	—	—	<b>D</b> (Intersection along segment operating @ LOS D or better)	—

**Table C.10 Continued**  
**Summary of Significant Impacts and Mitigation Measures**

Impacted Facility/Mitigation Measure	Note	Year 2015 Plus Project	Year 2020 Plus Project	Year 2025 Plus Project	Year 2030 Plus Project
<i>Freeway/State Highway Segment</i>					
I-805, from SR-94 to Market Street				Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable	Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable
I-805, from Market Street to Imperial Avenue			Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable	Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable	Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable
I-805, from Imperial Avenue to E Division Street			Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable	Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable	Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable
I-805, from Plaza Boulevard to SR-54				Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable	Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable
I-805, from SR-54 to Bonita Road	—	—	—	—	Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable
I-805, from Bonita Road to East H Street				Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable	Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable

**Table C.10 Continued  
Summary of Significant Impacts and Mitigation Measures**

Impacted Facility/Mitigation Measure	Note	Year 2015 Plus Project	Year 2020 Plus Project	Year 2025 Plus Project	Year 2030 Plus Project
<i>Freeway/State Highway Segment</i>					
I-805, from East H Street to Telegraph Canyon Road					Cumulative Impact: No feasible mitigation, impact remains significant and unmitigable
<i>Freeway/State Highway Ramp Metering</i>					
None					

*Source: Supplemental EIR for Otay Ranch Village 2 Comprehensive SPA*

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## **V. POLICE**

### **V.1. Threshold Standard**

- A. Emergency Response: properly equipped and staffed police units shall respond to 81% of “Priority One” Emergency calls within 7 minutes and shall maintain an average response time to all “Priority One” emergency calls of 5.5 minutes or less.
- B. Urgent Response: Respond to 57% of “Priority Two” urgent calls within 7 minutes and maintain an average response time to all “Priority Two” calls of 7.5 minutes or less.

### **V.2. Service Analysis**

The City of Chula Vista Police Department provides police services. The purpose of the Threshold Standards 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. Police threshold performance was analyzed in the “Report on Police Threshold Performance 1990-1999”, completed April 13, 2000. In response to Police Department and GMOC concerns the City Council amended the threshold standards for Police Emergency Response on May 28, 2002, with adoption of Ordinance 2860. 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.

### **V.3. Adequacy Analysis**

According to the GMOC 2013 Annual Report the response times for “Priority One” Calls for Service (CFS) were not met during the 2011-2012 time period (see Table D.1). The CVPD responded to 78.4 percent of Priority 1 “Emergency Response” calls within 7 minutes, which was 2.6 percent below the threshold standard of 81 percent, and 7.3 percent below the percentage reported for the previous year. The average response time, however, was within the threshold standard. With an average response time of 5 minutes and 1 second, the response time was 29 seconds better than the threshold standard requires, but 21 seconds longer than the previous year.

The CVPD attributes the increased response times to chronically low staffing in the Community Patrol Division. Grant funding received in 2012, however, may relieve the situation somewhat because it allows the department to recruit six new officers to the Patrol Division in 2013. Another 2.5 Community Service Officers are planned to be added.

The department has implemented a hybrid patrol schedule in 2013 that is expected to have a positive effect on response times. The 4/10-3/12 schedule adds more staffing on Friday through Sunday, when call-for-service volumes are highest. Officers work a 10-hour schedule from Monday through Thursday and a 12-hour schedule Friday through Sunday.

“Priority Two” CFS during the same period were not met. The Priority Two CFS has not been met for several years. For Priority Two CFS, the department responded to 49.8%, which is identical to the previous year’s percentage. The GMOC has determined that “Priority Two” or the Urgent Emergency Response time threshold has not been met.

<b>Table D.1 Historic Response Times Priority I -- Emergency Response, Calls For Service</b>			
	<b>Call Volume</b>	<b>% of Call Response w/in 7 Minutes</b>	<b>Average Response Time</b>
<b>Threshold</b>		<b>81.0%</b>	<b>5:30</b>
FY 2011-12	726 of 64,386	78.4%	5:01
FY 2010-11	657 of 64,695	85.7%	4:40
FY 2009-10	673 of 68,145	85.1%	4:28
FY 2008-09	788 of 70,051	84.6%	4:26
FY 2007-08	1,006 of 74,192	87.9%	4:19
FY 2006-07	976 of 74,277	84.5%	4:59
FY2005-06	1,068 of 73,075	82.3%	4:51
FY2004-05	1,289 of 74,106	80.0%	5:11
FY2003-04	1,322 of 71,000	82.1%	4:52
FY 2002-03	1,424 of 71,268	80.8%	4:55
FY 2001-02	1,539 of 71,859	80.0%	5:07
FY 2000-01	1,734 of 73,977	79.7%	5:13
FY 1999-00	1,750 of 76,738	75.9%	5:21
CY 1999 <sup>9</sup>	11,890 of 74,405	70.9%	5:50

Source: GMOC 2013 Annual Report

The original 1991 Urgent Response or Priority Two threshold standard was: Respond to 62% of calls within 7 minutes, maintaining an average of 7 minutes or less. In 1999, the City's Special Projects Division and the Police Department presented the GMOC with a report titled "Report on Police Threshold Performance 1990-1999." The report indicated that, prior to implementation of the CAD system, human error occurred when measuring dispatch time. The report suggested that the Priority Two threshold should have been set at 57% of calls within 7 minutes, with an average response time of 7.5 minutes. Subsequently, the City Council approved the proposed change to the threshold standard in 2002, which is the standard currently in effect.

One result of the aforementioned police threshold report was a 2003 change in the methodology for reporting the threshold data. The report pointed out that 42% of the Priority Two calls were alarm calls, and 99.9% of the alarm calls were false alarms. Therefore, the false alarms were taken out of the calculations. However, the Priority Two threshold standard still could not be met.

For the past 15 years, the Threshold Standard for Priority Two -Urgent Response has not been met. The percentage of calls responded to within 7 minutes has dropped to 41.9 percent, which is 7.9 points lower than last year, putting it 15.1 points below the threshold standard of 57 percent (see Table D.2). This is the largest noncompliant gap since FY 2005-06, when 40 percent of the calls were responded to within 7 minutes. The 11 minutes and 54 seconds average response time for FY 2011-12 was 4 minutes and 24 seconds above the threshold standard, which was 1 minute and 48 seconds worse than last year and the worst time ever reported to the GMOC.

<sup>9</sup> The FY98-99 GMOC Report used calendar 1999 data due to the implementation of the new CAD system in mid-1998.

The CVPD reported that staffing must significantly increase in the Community Patrol Division in order to meet the Priority 2 threshold standard. According to CVPD “This is most likely the best that can be achieved without additional patrol personnel.” As mentioned above, the Police Department is in the process of hiring additional officers.

Part of the non-compliance problem may be the threshold standard itself. Previous GMOC annual reports have explained that the City's growth management staff and Police Department staff have determined that Priority Two needs to be modified to more accurately report response times. According to the 2012 GMOC Annual Report, the Police Department had exhausted all resources with the goal of improving Priority Two response times; and without funding for additional staff, the Priority Two Threshold Standard will remain unmet in the foreseeable future.

Overall, the 2013 GMOC Annual Report indicates that the GMOC is concerned that the trend for both Priority 1 and 2 is headed in the wrong direction, and will continue to monitor these closely in future reports.

The recommendation for a modified Threshold Standard will be the result of staff analyzing data and working with the Police Department during a comprehensive review of the Growth Management Program. The GMOC will be proposing changes to the Priority Two Threshold Standard when it presents the results of the comprehensive review to the City Council. The changes will clear up some confusing aspects of how response times are currently reported and establish a response goal that is reasonable and appropriate.

<b>Table D.2 Historic Response Times Priority II -Urgent Response, Calls for Service</b>			
	<b>Call Volume</b>	<b>% of Call Response within 7 Min.</b>	<b>Average Response Time*</b>
<b>Threshold</b>		<b>57.0%</b>	<b>7:30</b>
FY 2011-12	22,121 of 64,386	41.9%	11:54
FY 2010-11	21,500 of 64,95	49.8%	10:06
FY 2009-10	22,240 of 68,145	49.8%	9:55
FY 2008-09	22,686 of 70,051	53.5%	9:16
FY 2007-08	23,955 of 74,192	53.1%	9:18
FY 2006-07	24,407 of 74,277	43.3%	11:18
FY 2005-06	24,876 of 73,075	40.0%	12:33
FY 2004-05	24,923 of 74,106	40.5%	11:40
FY 2003-04	24,741 of 71,000	48.4%	9:50
FY 2002-03	22,871 of 71,268	50.2%	9:24
FY 2001-02	22,199 of 71,859	45.6%	10:04
FY 2000-01	25,234 of 73,977	47.9%	9:38
FY 1999-00	23,898 of 76,738	46.4%	9:37
CY 1999	20,405 of 74,405	45.8%	9:35
FY 1997-98	22,342 of 69,196	52.9%	8:13
FY 1996-97	22,140 of 69,904	62.2%	6:50
FY 1995-96	21,743 of 71,197	64.5%	6:38

*Source: GMOC 2013 Annual Report*

The Priority Two threshold standard has been out of compliance for fifteen consecutive years. The GMOC’s 2013 Annual Report recommends that the City Council support the Police Chief’s efforts to 1) increase staff to budget levels, and 2) effectively manage work schedules to improve response times.

Currently, the CVPD’s staffing levels are not sufficient to meet the threshold response standards. The CVPD does have adequate facilities. In terms of the current staffing, any additional developments could potentially have a negative impact on police response times to the service area. The comprehensive use of advanced crime prevention through environmental design (CPTED) principles could help mitigate, to some extent, the impact on police services. In particular, completely controlling access to surface parking lots and structures would reduce vehicle crime in the proposed development area. Additionally, the use of construction materials and design approaches that reduce noise levels in residential units may also help mitigate the impact on police services.

**V.4. Financing Police Facilities**

The Public Facilities Development Impact Fee (PFDIF) was updated by the Chula Vista City Council on November 7, 2006 by adoption of Ordinance 3050. The PFDIF is adjusted every October 1<sup>st</sup> pursuant to Ordinance 3010, which was adopted by the City Council on June 14, 2005. The Police PDIF Fee for Single Family Development is \$1,671 per unit and \$1,805/unit for Multi-Family Development (see Table B.5)<sup>10</sup>. This amount is subject to change as it is amended from time to time. 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 project Police Fee obligation at build-out is \$2,858,795.

<b>Table D.3 Village 2 Comprehensive SPA Plan Public Facilities Fees For Police<sup>11</sup></b>				
<b>Land Use</b>	<b>Dwelling Units</b>	<b>Acres</b>	<b>Fee/DU or Ac.</b>	<b>Total Fees</b>
Single Family	-70		\$1,671	-116,970
Multi-Family	1,632		\$1,805	\$2,945,760
Industrial		0	\$1,703	
Mixed Use & Commercial		3.8	\$7,896	\$30,005
<b>Total</b>	<b>1,562</b>			<b>\$2,858,795</b>

Table D.3 presents the net increase (see Table B.3) for the SPA Amendment only and does not include the originally Approved SPA DUs and Commercial/Industrial acreages. The projected fee illustrated in Table D.3 is an estimate only. Actual fees may be different. PFDIF Fees are subject to change depending upon City Council actions and or Developer actions that change residential densities, industrial acreage or commercial acreages.

<sup>10</sup> Fee based on Form 5509 dated 11/07/2013. Actual fee may be different, please verify with the City of Chula Vista at the time of building permit.

<sup>11</sup> The PDIF Fee is subject to change as it is amended from time to time. Changes in the number of dwelling units, Industrial Acreage or Commercial Acreage may affect the estimated fee.

**V.5. Threshold Compliance**

The GMOC 2013 Annual Report found the Priority 1 and 2 Threshold Standards are non-compliant. This is a result of low staffing in the Community Patrol Division. The Department is in the process of increasing staff to budget levels and more effectively manage work schedules to improve response times.

Project compliance will be satisfied with the payment of Public Facilities Fees. The proposed project will be required to pay public facilities fees for police services, based on the number of dwelling units, prior to the issuance of building permits; the fees shall be paid at the rate in effect at the time payment is made.

**RECOMMENDATIONS**

- A. 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.
- B. That the City Council support a change to the Priority Two threshold when it is brought to them.
- C. That City Council support the Police Chief's efforts to 1) increase staff to budget levels, and 2) effectively manage the work schedules to improve response times.
- D. That the City Council considers a permanent satellite facility in eastern Chula Vista when it is brought to them.

## VI. FIRE AND EMERGENCY MEDICAL SERVICES

### VI.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 80 percent of the cases.

### VI.2. Service Analysis

The City of Chula Vista Fire Department (CVFD) provides Fire and Emergency Medical Services (EMS). EMS is provided on a contract basis with American Medical Response (AMR). The City also has countywide mutual and automatic aid agreements with surrounding agencies, should the need arise for their assistance. The purpose of the Threshold Standard and the monitoring of response times are to maintain and improve the current level of fire protection EMS in the City. Fire/EMS facilities are provided for in the recently City Council Adopted (1/28/2014) Fire Facility, Equipment and Deployment Master Plan (FFMP). The FFMP indicates that the number and location of fire stations primarily determine response time. The Master Plan evaluates the planning area's fire coverage needs, and recommends a Twelve (12) station network at build out to maintain compliance with the Threshold Standard (see Table E.1).

### VI.3. Existing Conditions

There are currently nine (9) fire stations serving the City of Chula Vista. The existing station network is listed below:

<b>Table E.1</b>			
<b>Current Fire Station Facilities</b>			
<b>Station</b>	<b>Location</b>	<b>Equipment</b>	<b>Staffing</b>
<b>Current Fire Station Facilities</b>			
Station 1	447 F St.	Engine 51/Truck 51/Battalion 51	Assigned: 24 - On Duty: 8
Station 2	80 East J St.	Engine 52	Assigned: 9 - On Duty: 3
Station 3	1410 Brandywine Ave.	US&R <sup>12</sup> 53 + Tender & Trailer	Assigned: 12 - On Duty: 4
Station 4	850 Paseo Ranchero	Engine 54	Assigned: 9 On Duty: 3
Station 5	391 Oxford St.	Engine 55	Assigned: 9 On Duty: 3
Station 6	605 Mt. Miguel Rd.	Engine 56/Brush 56	Assigned: 9 On Duty: 3
Station 7	1640 Santa Venetia Rd.	Engine 57/Truck 57/Battalion 52	Assigned: 24 On Duty: 8
Station 8	1180 Woods Dr.	Engine 58	Assigned: 9 On Duty: 3
Station 9	291 E. Oneida Street	Engine 59	Assigned: 9 On Duty: 3
<b>Planned Fire Station Facilities</b>			
	EUC	New Engine/ New Truck	Unknown
	Bayfront	New Engine/ New Truck	Unknown
	Village 8 West	New Engine/ New Truck	Unknown

Source: CVFD

<sup>12</sup> National Urban Search and Rescue (US&R) Response System Team

**VI.4. Adequacy Analysis**

The City of Chula Vista Fire Department (CVFD) currently serves areas within the City's boundaries, including the Village 2 Comprehensive SPA Plan. Specifically, the Village 2 Comprehensive SPA Plan project is within the service area of Fire Station #7, located at the southwest corner of Santa Venetia Street and La Media Road. Other stations that are near the project are:

- Fire Station #4, located in Rancho Del Rey – 2.5 miles
- Fire Station #8, located in EastLake III – 3.5 miles

The department’s standard response to a fire at the project site, depending upon the land use involved, could include: Four Fire Engines from Stations 4, 6, 7 & 8; Two Trucks from Stations 1 & 7; Two Battalion Chiefs from Stations 1 & 7; and One Urban Search & Rescue team from Station 3.

The Fire/EMS response time threshold was not met for calendar year 2012. The percentage of calls responded to within 7 minutes dropped approximately 2% between Fiscal Year 2011 (78.1%) and Fiscal Year 2012 (76.4). This is down a total of 8.6% in the past two years, and 3.6% below the threshold standard of 80%. The CVFD explained that, during the reporting period, the call volume increased by 1,493 calls (10% medical and 24% fire) while available resources, staffing and facilities remained the same, resulting in a higher demand on available resources, which made the standard more difficult to achieve. CVFD indicates that the aging fleet of fire apparatus, combined with a reduction in public works support staff (radio technicians and mechanics) also hampered their ability to meet the standards.

<b>Years</b>	<b>Call Volume</b>	<b>% of All Call Response Within 7:00 Minutes</b>
FY 2012	11,132	76.4%
FY 2011	9,916	78.1%
FY 2010	10,296	85.0%
FY 2009	9,363	84.0%
FY 2008	9,883	86.9%
FY 2007	10,020	88.1%
CY 2006	10,390	85.2%
CY 2005	9,907	81.6%
FY 2003-04	8,420	72.9%
FY 2002-03	8,088	75.5%
FY 2001-02	7,626	69.7%
FY 2000-01	7,128	80.8%

*Source: GMOC 2012 Annual Report*

Regardless of the downturn in response times, the CVFD reported that the average response time for 80% of the calls actually improved by 47 seconds, due to the fact that the majority of the calls were on the west side of the City, where navigation through the roadways is easier. Response times in the west averaged 5.39 minutes; response times in the east averaged 6.48 minutes. The city street network pattern contributes to emergency response times. The City of Chula Vista west of I-805 has a grid street pattern that promotes accessibility and

generally has good response times<sup>13</sup>. East of I-805 the street pattern is less of a grid, consisting of a hierarchy of streets, curvilinear street patterns and cul-de-sacs that can restrict accessibility and lower response times. New developments in the City of Chula Vista should consider street connectivity and accessibility for emergency vehicles. To address the situation, the Fire Department is developing techniques and solutions that will improve response times.

As noted above, there were 1,493 more calls for service in 2012 than in 2011 and the majority of increased calls were for fires. The percentage of fire calls went from 5.1% in 2011 to 7.19% in 2012. The other calls in 2012 were medical (84.59%) and other emergencies (8.22%).

**VI.5. Fire & EMS Facility Analysis:**

The CVFD has four fire stations west of Interstate 805 and 6 fire stations east of I-805. An additional station is planned as a part of the future Bay Front project. Response times are good for west side stations since they are located within a traditional grid street pattern plus fewer calls for service than the eastern stations. New developments in the eastern portion of the city will require better street connectivity and an increased awareness for emergency vehicle access to improve response times. The CVFD has indicated that new fire apparatus is necessary to accommodate new growth over the next five years.

The City of Chula Vista has contracted with San Diego Dispatch since March, 2008, to respond to fire and medical dispatch calls. The percentage of calls responded to within seven minutes is approximately what it was prior to outsourcing, and at 76.4% is below the 80% threshold standard (see Table E.3 below).

<b>Table E.3 Village 2 Comprehensive SPA Plan PFFP Fire/EMS - Emergency Response Times Comparison</b>		
<b>Years</b>	<b>Average Response Time for 80% of Calls</b>	<b>Average Travel Time</b>
FY 2012	5:59	3:41
FY 2011	6:46	3:41
FY 2010	5:09	3:40
FY 2009	4:46	3:33
FY 2008	6:31	3:17
FY 2007	6:24	3:30
CY 2006	6:43	3:36
CY 2005	7:05	3:31
FY 2003-04	7:38	3:32
FY 2002-03	7:35	3:43
FY 2001-02	7:53	3:39
FY 2000-01	7:02	3:18

*Source: GMOC 2013 Annual Report*

The CVFD has requested that the City of Chula Vista use the National Fire Prevention Association (NFPA) standards for future GMOC reporting. The NFPA standards are used by fire departments to assess and report response and Effective Fire Force (EFF) statistics. Using this standard would measure the CVFD against the National standard of 1 minute dispatch, 1 minute turnout and 4 minute travel time, and would provide a clearer picture of how CVFD and the dispatch center are doing each year.

<sup>13</sup> Fire Marshall, City of Chula Vista, December 14, 2012.



**VI.6. Financing Fire & EMS Facilities:**

The Public Facilities Development Impact Fee (PFDIF) was updated by the Chula Vista City Council on November 7, 2006 by adoption of Ordinance 3050. The PFDIF is adjusted every October 1<sup>st</sup> pursuant to Ordinance 3010, which was adopted by the City Council on June 14, 2005. The Fire PFDIF Fee for Single Family Development is \$1,393/unit and \$1,001/unit for Multi-Family Development (see Table A.7)<sup>14</sup>. This amount is subject to change as it is amended from time to time. 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 project Fire Fee obligation at build-out is \$ 1,550,110.

<b>Table E.4 Village 2 Comprehensive SPA Plan Public Facilities Fees For Fire<sup>15</sup></b>				
<b>Land Use</b>	<b>Dwelling Units</b>	<b>Acres</b>	<b>Fee/DU or Ac.</b>	<b>Total Fees</b>
Single Family	-70		\$1,393	\$ -97,510
Multi-Family	1,632		\$1,001	\$ 1,633,632
Industrial		0	\$731	\$ 0
Mixed Use Commercial		3.8	\$3,681	\$ 13,988
<b>Total</b>	<b>1,562</b>			<b>\$ 1,550,110</b>

Table E.4 presents the net increase (see Table B.3) for the SPA Amendment only and does not include the originally Approved SPA DUs and Commercial/Industrial acreages. The projected fee illustrated in Table E.4 is an estimate only. Actual fees may be different. PFDIF Fees are subject to change depending upon City Council actions and or Developer actions that change residential densities, industrial acreage or commercial acreages.

**VI.7. Threshold Compliance and Requirements:**

- A. 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.
- B. The Project shall pay public facilities fees prior to the issuance of building permits; the fees shall be paid at the rate in effect at the time payment is made.
- C. That City Council directs the Fire Department to implement effective measures that will ensure that the threshold standard will be met.
- D. The Fire Department will review future Tentative Maps for street connectivity to increase access for new development.

<sup>14</sup> Fee based on Form 5509 dated 11/07/2013. Actual fee may be different, please verify with the City of Chula Vista at the time of building permit.

<sup>15</sup> The PDIF Fee is subject to change as it is amended from time to time. Changes in the number of dwelling units, Industrial Acreage or Commercial Acreage may affect the estimated fee.

## **VII. SCHOOLS**

### **VII.1. Threshold Standard**

The City shall annually 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.

### **VII.2. Service Analysis**

School facilities and services in Chula Vista are provided by two school districts. The Chula Vista Elementary School District (CVESD) administers education for kindergarten through sixth grades. The Sweetwater Union High School District (SUHSD) administers education for the Junior/Middle and Senior High Schools of a large district, which includes the City of Chula Vista. 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.

On November 3, 1998, California voters approved Proposition 1A, the Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998. Prior to the passage of Proposition 1A, school districts relied on statutory school fees established by Assembly Bill 2926 ("School Fee Legislation") which was adopted in 1986, as well as judicial authority (i.e., Mira-Hart-Murrieta court decisions) to mitigate the impacts of new residential development. In a post Proposition 1A environment, the statutory fees provided for in the School Fee Legislation remains in effect and any mitigation requirements or conditions of approval not memorialized in a mitigation agreement, after January 1, 2000, will be replaced by Alternative Fees (sometimes referred to as Level II and Level III Fees). The statutory fee for residential development is referred to in these circumstances as the Level I Fee (i.e., currently at \$2.24 per square foot for new residential construction and \$0.36 per square foot for new commercial and industrial construction).

CVESD utilizes their current *Fee Justification Report, June 2012, by SDF*A, to quantify the impacts of new residential development on the district's school facilities, and to calculate the permissible Alternative Fees to be collected from such new residential development. To ensure the timely construction of school facilities to house students from residential development, alternative fees or implementation of a Mello Roos Community Facilities District (CFD) will be necessary.

Both CVESD and SUHSD are justified per Gov't Code to collect the maximum fee of \$3.20 per square foot for new residential construction. CVESD has an agreement with SUHSD specifying the amount of the development fee that each district collects from new residential development. Based on the agreement, CVESD collects \$1.41 per square foot and SUHSD collects \$1.79 per square foot for residential construction.

Sweetwater Union High School District utilizes their current “Sweetwater Union High School District Long Range Comprehensive Master Plan.” Implementation of the SUHSD Plan is ongoing and has resulted in the upgrading of older schools and accommodating continuing growth. In November 2000, a supportive community approved Proposition BB. The district leveraged \$187 million from Proposition BB into a \$327 million effort utilizing state funding to modernize and upgrade twenty-two campuses. Additional work efforts associated with Proposition O have commenced and construction has begun.

In November 2006, the community supported Proposition O, a 644 million dollar bond measure. This bond measure addresses the critical and urgent safety needs of the 32 campuses within the SUHSD. The types of repairs and improvements that Prop O addresses includes: improving handicap accessibility, removing asbestos and lead paint, and upgrading fire and life safety systems.

### **VII.3. Project Processing Requirements**

The PFFP is required by the Growth Management Program to address the following issues for School Services:

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.

### **VII.4. Existing Conditions**

#### **School Facilities Inventory, Chula Vista Elementary School District**

The CVESD, established in 1892, is the largest kindergarten through sixth grade (grades K–6) school district in California, and serves nearly 29,000 students in 45 elementary schools (includes 6 Charter Schools) with approximately 2,500 employees (both certified and classified) districtwide. Table F.1 lists existing schools together with the capacity and enrollment of each. Capacity using existing facilities is approximately 31,000. Enrollment is currently approximately 28,890. Ten of the 45 schools are over capacity and three schools are near capacity (see Table F.1). A new K-6 school opened in Village 11 in July 2013. With the addition of this school, the CVESD expects to have adequate capacity to house all projected students for the next 18 months. However, additional facilities may be necessary with the next five years.

Currently, several schools in eastern Chula Vista are over capacity, including Arroyo Vista, Hedenkamp, Veterans, McMillin, Wolf Canyon, and Salt Creek, which has the highest number

**Table F.1  
Chula Vista Elementary School District - Enrollments vs. Capacity**

<b>Schools</b>	<b>Estimated Enrollment 12/2013</b>	<b>Approximate Capacity</b>	<b>Remaining Capacity</b>
Allen/Ann Daly	431	565	134
Arroyo Vista Charter	1,034	850	-184
Camarena	944	900	-44
Casillas	595	739	144
Castle Park	421	539	118
Chula Vista Hills	559	588	29
Chula Vista LCC	800	725	-75
Clear View Charter	519	593	74
Cook	449	538	89
Discovery Charter	855	950	95
EastLake	633	763	130
Feaster/Ed Charter	1,111	1,164	53
Finney	406	622	216
Halecrest	503	601	98
Harborside	625	914	289
Hedenkamp	1,070	1,045	-25
Heritage	912	863	-49
Hilltop Drive	574	588	14
Juarez-Lincoln	592	776	184
Kellogg	318	539	221
Lauderbach	827	965	138
Liberty	728	748	20
Loma Verde	552	650	98
Los Altos	395	526	131
Marshall	724	734	10
McMillin	856	850	-6
Montgomery	358	526	168
Mueller Charter	1,051	900	-151
Olympic View	851	825	-26
Otay	607	775	168
Palomar	393	468	75
Parkview	364	583	219
Rice	691	741	50
Rogers	472	660	188
Rohr	349	489	140
Rosebank	605	764	159
Salt Creek	1,025	950	-75
Silver Wing	405	638	233
Sunnyside	447	564	117
Tiffany	586	689	103
Valle Lindo	528	714	186
Valley Vista	561	688	127
Veterans	888	850	-38
Vista Square	631	751	120
Wolf Canyon	645	849	204
<b>Totals</b>	<b>28,890</b>	<b>32,759</b>	<b>3,869</b>
District Adjustments		<b>30,984</b>	<b>2,094</b>

*Source: CVESD*

**Table F.2  
Sweetwater Union High School District  
Enrollments vs. Capacity 2013-2014**

<b>School Site</b>	<b>Program Capacity 100%</b>	<b>Estimated Enrollment</b>	<b>Capacity vs. Projected</b>
<b>Middle Schools</b>			
Bonita Vista	1,724	1,044	680
Castle Park	1,906	732	1,174
Chula Vista	1,795	1,056	739
EastLake	1,861	1,720	141
Granger	1,491	1,043	448
Hilltop	1,622	1,037	585
Mar Vista Mid.	1,684	828	856
Montgomery Mid.	1,408	805	603
National City Mid.	1,410	787	623
Rancho del Rey	1,700	1,700	0
Southwest	1,712	719	993
<b>Subtotal</b>	<b>18,313</b>	<b>11,471</b>	<b>6,842</b>
<b>High Schools</b>			
Bonita Vista	2,795	2,478	317
Castle Park	2,514	1,396	1,118
Chula Vista	3,430	2,714	716
EastLake	2,996	2,892	104
East Hills Academy*	132	48	84
Hilltop	2,889	2,042	847
Mar Vista	2,431	1,637	794
Montgomery	2,798	1,621	1,177
Olympian	2,468	1,896	572
Otay Ranch	2,985	2,618	367
San Ysidro	2,905	2,165	740
Southwest	2,954	1,572	1,382
Sweetwater	3,266	2,533	733
Palomar	648	373	275
<b>Subtotal</b>	<b>35,211</b>	<b>25,985</b>	<b>9,226</b>
<b>Total</b>	<b>53,524</b>	<b>37,456</b>	<b>16,068</b>

\* Combined Jr. High & High School

Source: SUHSD

(75). The Learning Community in western Chula Vista is also over capacity and is projected to be nearly 150 over capacity within five years, along with Mueller (58).

**School Facilities Inventory, Sweetwater Union High School District**

The District serves nearly 40,000 students in middle and high school (grades 7–12). The SUHSD currently administers eleven (11) junior high/middle schools and twelve (12) senior high schools including one continuation high school within the District. Several middle and high schools are planned or have been recently opened in the area. Olympian High School was opened in 2006 within Village 7, and has a planned capacity of 2,600 students. A new 7–12 school is planned within Otay Ranch Village 11. However, there is no construction schedule available.

The SUHSD has indicated that the unstable economy, high foreclosure rate, and expansion of charter schools into the 7-12 arena make the 5-year projections for eastern Chula Vista very tentative. If charter schools continue to siphon students, it is likely that the District will have capacity for five years of residential growth. However, if there is a significant increase in development and reoccupation of foreclosed homes, construction of Middle School No. 12 and High School No. 14 in Village 11 may be necessary within the next 5 years. Construction is anticipated to occur within 2-3 years.

**VII.5. School Sizing and Location**

The project is proposed to add 1,562 additional dwelling units at build out (see Table F.3 below). At completion, the proposed project could generate approximately 869 students using the following Student Generation Factors:

		<b><u>Single Family Detached</u></b>	<b><u>Multi-Family Attached</u></b> <sup>16</sup>
Elementary (K-6)	=	.4114 <sup>17</sup> students/dwelling unit	.3481 students/d.u.
Middle School (7-8)	=	.1216 students/dwelling unit	.0516 students/d.u.
High School (9-12)	=	.2291 students/dwelling unit	.1057 students/d.u.

By phase and school category, the project is expected to generate the following students:

<b>Table F.3 Otay Ranch Village 2 Comprehensive SPA Plan Student Generation by Development Phase</b>										
	<b>Dwelling Units</b>		<b>Student Generation</b>							
			<b>Elementary (K-6)</b>		<b>Middle (7-8)</b>		<b>High School (9-12)</b>		<b>Total Students</b>	
	<b>SF</b>	<b>MF</b>	<b>SF</b>	<b>MF</b>	<b>SF</b>	<b>MF</b>	<b>SF</b>	<b>MF</b>	<b>SF</b>	<b>MF</b>
	<b>311</b>	<b>1,251</b>	<b>128</b>	<b>435</b>	<b>38</b>	<b>65</b>	<b>71</b>	<b>132</b>	<b>237</b>	<b>632</b>
<b>Total</b>	<b>1,562</b>		<b>563</b>		<b>102</b>		<b>203</b>		<b>869</b>	

<sup>16</sup> Includes Single Family Attached and Apartment units.

<sup>17</sup> Rate from CVESD.

<b>Typical School Size Standards:</b>	Elementary	750-1000 students
	Middle	1,500 students
	Senior High	2,400 students

**Chula Vista Elementary School District**

There are six CVESD elementary schools serving Otay Ranch students. These include Heritage Elementary, McMillin Elementary, Hedencamp Elementary, Veterans Elementary, Wolf Canyon Elementary and Camarena Elementary. The newest K–6 school in Otay Ranch Village 11 (Enrique S. Camarena Elementary School) opened in July 2013. With the addition of this school, the CVESD expects to have adequate facilities to house all projected students for up to 5 years. An additional elementary school was planned to commence construction in 2011 within Village 2. However, the Village 2 elementary school is on hold and no construction update is available.

The Village 2 Comprehensive SPA Plan Site Utilization Plan identifies a 9.5-acre elementary school site within the Village 2 core. As noted in Table F.4, the build-out of Village 2 Comprehensive SPA Plan would generate the need to house approximately 563 elementary school age students. Generally, CVESD prefers to construct elementary schools that serve approximately 750 students.

The State Department of Education must approve the Village 2 Comprehensive SPA Plan elementary school site prior to district acceptance. Due to the tremendous growth and enrollment in the CVESD, the district may retain the designated school site. However, should the site be determined at a later date to be excess property for the purposes of a new school, the district will notify appropriate parties at that time.

**Sweetwater Union High School District**

Secondary schools serving Otay Ranch include Otay Ranch High School, Olympian High School, Rancho del Rey Middle School, and EastLake Middle School. Enrollment and capacity in these schools are shown in F.2. It is anticipated that the 102 middle school students generated by Village 2 Comprehensive SPA Plan will be served at facilities in EastLake until the first Otay Ranch middle school is constructed. EastLake Middle School is located approximately four miles north of Village 2 Comprehensive SPA Plan. The Otay Ranch GDP School Facility Implementation Plan is based on the premise that schools will be constructed when half of the school's projected students reside in the community. The maximum middle school capacity is 1,500 students, which would indicate a school construction trigger of approximately 750 students. However, throughout the district there is available middle school capacity. Additional middle schools will be constructed when overall demand begins to approach existing capacity. Currently, Otay Ranch Village 7 has a designated site for a Middle School.

The maximum capacity of a high school is approximately 2,400 students. It is anticipated that the 203 students generated from the Village 2 Comprehensive SPA Plan will be served at Olympian High School, which is located approximately one mile to the east. Depending on actual build-out and the capacity of existing area schools, it may be necessary to construct the planned high school within Village 11 prior to build-out of Village 2 Comprehensive SPA Plan.

Demand for adult school facilities will be satisfied within existing facilities in the Sweetwater Union High School District, until a new facility can be constructed in the Eastern Urban Center (EUC) or a site reserved pursuant to the Otay Ranch GDP.

**VII.6. Financing School Facilities**

California Government Code section 65995 et. seq. and Education Code Section 17620 et. seq. authorizes school districts to impose facility mitigation exactions on new development as a way to address increasing enrollment caused by that development.

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 that could be collected by law represents less than one-fourth the cost to construct schools. The SUHSD is unable to meet the needs of this project with current school facilities and it is unable to construct new facilities to meet the impacts of this project through the provision of school fees.

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:

<b>SUHSD</b>		<b>CVESD</b>	
CFD No. 1	EastLake	CFD No. 1	EastLake
CFD No. 2	Bonita Long Canyon	CFD No. 2	Bonita Long Canyon
CFD No. 3	Rancho del Rey	CFD No. 3	Rancho del Rey
CFD No. 4	Sunbow	CFD No. 4	Sunbow
CFD No. 5	Annexable	CFD No. 5	Annexable
CFD No. 6	Otay Ranch	CFD No. 6	Otay Ranch
CFD No. 7	Rolling Hills Estate	CFD No. 10	Annexable for future annexations
CFD No. 8	Coral Gate (Otay Mesa)	CFD No. 11	Otay Ranch (Lomas Verde)
CFD No. 9	Ocean View Hills	CFD No. 12	Otay Ranch (Village 1, West)
CFD No. 10	Remington Hills/Annexable	CFD No. 13	San Miguel Ranch
CFD No. 11	Lomas Verdes	CFD No. 14	Otay Ranch Village 11 (Brookfield/Shea)
CFD No. 12	Otay Ranch (Village 1 West)	CFD No. 15	Otay Ranch Village 6 (ORC)
CFD No. 13	San Miguel Ranch		
CFD No. 15	Otay Ranch Village 6 (ORC)		
CFD No. 14	Otay Ranch Village 11		

Based on historical data available from each district an estimate of costs for the construction of school facilities on a per student basis is provided. Both districts follow state standards for determining the costs and size for school construction. The cost for a high school, including land acquisition, is approximately \$38,500 per student (2010 dollars). Excluding land, the cost for a high school is approximately \$32,000 per student. The cost for a middle school, including land acquisition, is approximately \$36,000 per student (2010 dollars). Excluding land, the cost for a middle school is \$32,000 per student. The cost for an elementary school, including land acquisition, is approximately \$33,500 per student (2010 dollars). Excluding the land, the cost for an elementary school is approximately \$30,000 per student. Land acquisition cost is calculated at approximately \$350,000/net usable acre (10 acre elementary



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

**Elementary School Cost**

(1000 students) (\$30,000/student w/o land cost)	\$30,000,000
(1000 students) (\$33,500/student w/land cost)	\$33,500,000

**Middle School Cost**

(1,500 students) (\$32,000/student w/o land cost)	\$48,000,000
(1,500 students) (\$36,000/student w/ land cost)	\$54,000,000

**High School Cost**

(2,400 students) (\$32,000/student w/o land cost)	\$80,000,000
(2,400 students) (\$38,500/student w/ land cost)	\$92,500,000

**VII.7. Threshold Compliance and Recommendations**

1. 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.
2. Prior to Final Map approval, the project proponent(s) shall provide documentation to the City confirming satisfaction of SUHSD and CVESD facility funding requirements to offset student generation impacts. Funding shall be satisfied through the Mello-Roos Community Facilities District financing method or other means acceptable to each District. In addition, condition the first tentative map to require that no final map shall be approved unless and until a school facility financing mechanism is in place to the satisfaction of the Sweetwater Union High School District and the Chula Vista Elementary School District.

## **VIII. LIBRARIES**

### **VIII.1. Threshold Standard**

Population ratio: 500 square feet (gross) of adequately equipped and staffed library per 1000 population. The city shall construct 60,000 Gross Square Feet (GSF) of additional library space over the June 30, 2000 GSF total, in the area east of Interstate 805 by build out. The construction of said facilities shall be phased such that the city will not fall below the citywide ratio of 500 GSF per 1,000 population. Library facilities are to be adequately equipped and staffed.

### **VIII.2. Service Analysis**

The City of Chula Vista Library Department provides library facilities.

### **VIII.3. Project Processing Requirements**

The PFFP is required by the Growth Management Program to address the following issues for Library services:

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

### **VIII.4. Existing Conditions**

The City provides library services through the Civic Center Branch Library, the South Chula Vista Branch Library and, Otay Ranch Branch Library. The Castle Park and Woodlawn Libraries have been closed. The Civic Center Branch Library is located at 365 F Street, approximately 7 miles from the project and is the largest library facility within the city, consisting of a two-story, 55,000-square-foot building. The South Chula Vista Branch Library is located at 389 Orange Avenue, approximately five miles from the project and consists of approximately 37,000 square feet. The Otay Ranch Branch Library is located at 2015 Birch Road in the Otay Ranch Town Center, approximately one mile from the project and consists of approximately 3,400 square feet. The existing and future libraries are listed on the Table G and Table G.1, respectively.

<b>Table G.1 Existing Library Facilities</b>	
<b>Existing Libraries</b>	<b>Square Footage</b>
Civic Center	55,000
South Chula Vista	37,000
Otay Ranch Town Center	3,400
<b>Total Existing Square Feet</b>	<b>95,400</b>

The draft Chula Vista Public Library Strategic Facilities Plan identified ways to improve library service delivery to the community, particularly to residents of eastern Chula Vista. The plan indicates that the additional needed library square footage can be developed as multiple smaller branches, or as one large library. However, the library's operating budget has been significantly reduced and capital funding is not currently available. Therefore the facilities plan does not determine which option would be implemented. The options will be evaluated when capital and operating funds become available. Additional measures such as mall outlets, book vending machines, a bookmobile, and service partnerships are identified as possible interim measures. One recent interim measure was the mall branch at Otay Ranch Town Center, which opened in April 2012.

#### **VIII.5. Adequacy Analysis**

Using the threshold standard of 500 square feet of library space per 1,000 population, the demand for library space based on Chula Vista's estimated population for January 2013 of a population of 251,560<sup>18</sup> is approximately 125,780 square feet. Chula Vista currently provides 95,400 square feet of library space. This represents an approximate 30,380 square foot deficit. The demand generated by the 10,115 forecasted dwelling units (GMOC 2013 Annual Report) is 16,235 square feet ( $10,115 \times 3.21^{19}/1,000 \times 500$ ). By 2018 the demand for library space generated by the existing and forecasted dwelling units totals approximately 142,000 ( $125,780 + 16,235$ ) square feet. Comparing this demand to the existing library square footage of 95,400 square feet results in a deficit of approximately 46,600 square feet unless the city completes the Rancho Del Rey and EUC Regional Library or a combination of a Regional Library and numerous branch libraries before 2018. Table G.2 illustrates the need to increase Library Facilities over the next five years to keep pace with the city's projected growth. The SANDAG 2030 build out population for Chula Vista is approximately 289,044. This population will require approximately 144,500 square feet of Library Facilities.

The GMOC threshold standard for libraries is 500 square feet of library space per 1,000 residents. According to the 2013 GMOC Annual Report, the current service ratio for FY 2011 was 383 square feet for every 1,000 residents, after the opening of the Town Center Branch Library in April 2012. Therefore, the city does not current meet the GMOC threshold for libraries.

The proposed Village 2 Comprehensive SPA project would result in demand for libraries and may have the potential to require the construction of new or expanded library facilities. The Chula Vista Growth Threshold Standard establishes a standard of 500 square feet of adequately equipped and staffed library facilities per 1,000 residents. The project would

<sup>18</sup> GMOC 2013 Annual Report

<sup>19</sup> Population coefficient of 3.24 persons per household.

generate demand for approximately 2,530 square feet of additional library facilities within the city. While the SPA Plan permits public/quasi-public uses such as libraries, within the SPA Plan, the proposed project does not specifically include the development of a library. Future library facilities would be funded in part by payment of the PFDIF.

	<b>Population<sup>20</sup></b>	<b>Demand Square Footage</b>	<b>Estimated Supply Square Footage</b>	<b>Above/(Below) Standard</b>
Estimated Existing Citywide 01/2013	251,560	125,780	95,400	(30,380)
1 <sup>st</sup> regional library (Rancho del Rey) 2018			26,400	(3,980)
2 <sup>nd</sup> regional library (EUC) 2018			23,600	19,620
Forecasted Projects to 2018 (10,115 x 3.21)	32,470	16,235		3,385
<b>Subtotal</b>	<b>284,030</b>	<b>142,015</b>	<b>145,400</b>	<b>3,385</b>

#### VIII.6. Financing Library Facilities

The Public Facilities Development Impact Fee (PFDIF) was updated by the Chula Vista City Council on November 7, 2006 by adoption of Ordinance 3050. The PFDIF is adjusted every October 1<sup>st</sup> pursuant to Ordinance 3010, which was adopted by the City Council on June 14, 2006. The current PFDIF for single-family residential and multi-family development is \$1,582/unit. This amount is subject to change with the adoption of Ordinance 3010. The PFDIF amount is subject to change as it is amended from time to time. Both residential and non-residential development impact fees apply to the project. The calculations of the PFDIF due for each facility are addressed in the following sections of this report. At the current library fee rate, the Otay Ranch Village 2 Comprehensive SPA Library Fee obligation at build-out is \$ 2,471,084 (see Table G.3).

<b>Land Use</b>	<b>Dwelling Units</b>	<b>Acres</b>	<b>Fee/DU or Ac.</b>	<b>Total Fees</b>
Single Family	-70		\$1,582	\$ -110,740
Multi-Family	1,632		\$1,582	\$ 2,581,824
Industrial		0	\$0	\$0
Mixed Use Commercial		3.8	\$0	\$0
<b>Total</b>	<b>1,562</b>			<b>\$ 2,471,084</b>

<sup>20</sup> Based on City of Chula Vista Estimates, 2013 GMOC Annual Report.

<sup>21</sup> The PFDIF Fee is subject to change as it is amended from time to time. Changes in the number of dwelling units may affect the estimated fee.

Table G.3 presents the net increase (see Table B.3) for the SPA Amendment only and does not include the originally Approved SPA DUs and Commercial/Industrial acreages. The projected fee illustrated in Table G.3 is an estimate only. Actual fees may be different. PFDIF Fees are subject to change depending upon City Council actions and or Developer actions that change residential densities, industrial acreage or commercial acreages.

#### **VIII.7. Threshold Compliance and Recommendations**

- A. Based upon the analysis contained in this section, the city's current library facilities (approximately 95,400 square feet) are approximately 30,735 square feet below the threshold standard (see Table G.2). The library threshold standard will not be met until a new library at Rancho del Rey or the Eastern Urban Area is completed.
- B. Prior to the issuance of each building permit for any residential dwelling units, the applicant shall pay the required PFDIF in accordance with the fees in effect at the time of building permit issuance and phasing approved. Payment of the PFDIF would represent the project's fair share contribution to meet the city threshold standard for library space.

#### **Recommendations**

The GMOC recommended to the City Council that a Library Facilities Master Plan with interim and long-term solutions be adopted as soon as possible to bring a the library system into conformance.

## **IX. PARKS, TRAILS AND OPEN SPACE**

### **IX.1. Park Threshold Standard**

Population ratio: Three (3) acres of neighborhood and community parkland with appropriate facilities shall be provided per 1,000 residents.

### **IX.2. Service Analysis**

The City of Chula Vista provides public park and recreational facilities and programs through the Development Services, Public Works, and 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 this Commission to the deciding body, the City Council.

The Otay Ranch Parks and Recreation Facility Implementation Plan was adopted by the City Council on October 28, 1993. This plan identifies the parks facility improvement standards for the Otay Ranch.

The City Council approved the Chula Vista Parks and Recreation Master Plan in November 2002. The Plan provides guidance for planning, siting and implementation of neighborhood and community parks.

### **IX.3. Project Processing Requirements**

- A. Identify phased demands in conformance with the number of dwelling unit's constructed, street improvements and in coordination with the construction of water and sewer facilities.
- B. Specific siting of the facility will take place in conformance with the Chula Vista Parks and Recreation Master Plan.
- C. Site/s reserved for park purposes within the project.

### **IX.4. Existing Conditions**

The existing and future parks are depicted in the Park and Recreation Element of the General Plan and updated by the inclusion of more recent information in the city's Parks and Recreation Master Plan. Further, the Project site is within the boundaries of the approved Villages 2, 3 and Portion of Village 4 SPA Plan. The Village 2 Comprehensive SPA Plan provides details for the additional Parks and Open Space Plan provided by this SPA Plan Amendment. The City's Parkland Dedication Ordinance requirements for the Villages 2 Comprehensive SPA Plan are outlined in Table H.4.

### **IX.5. Project Park Requirements**

The project generates an estimated population of 5,061 (1,562 dwelling units x 3.24<sup>22</sup> population factor). To meet the city threshold requirements the amount of parkland dedicated is based on a standard of 3 acres per 1,000 populations (see Table H.1). The standard is based on State of California Government Code 66477, also known as the Quimby Act that allows a city to require by ordinance, the dedication of land or payment of fees for park or recreational purposes.

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<sup>22</sup> Provided by the Chula Vista Planning Department.

<b>Table H.1 Quimby Act Parkland Requirements</b>		
<b>Villages 2 Comprehensive SPA Population</b>	<b>Standard</b>	<b>Parkland Acres Required</b>
5,061	3 acres per 1,000 population	15.18

All new development in the City of Chula Vista is subject to the requirements contained in the City's Parkland Dedication Ordinance CVMC Chapter 17.10. The ordinance establishes fees for park land acquisition and development, sets standards for dedication and establishes criteria for acceptance of parks and open space by the City of Chula Vista. Fees vary depending upon the type of dwelling unit that is proposed. There are three types of housing; Single Family dwelling units (defined as all types of single family detached housing and condominiums), Multi-Family dwelling units (defined as all types of attached housing including townhouses, attached condominiums, duplexes, triplexes and apartments), and Mobile Homes. Single Family Housing is defined as a free-standing structure with one residential unit. Multi-Family Housing is defined as any free-standing structure that contains two or more residential units. Parkland dedication requirements are shown below on Table H.2.

<b>Table H.2 City of Chula Vista Parkland Dedication Ordinance Standards</b>		
<b>Dwelling Unit Type</b>	<b>Land Dedication per Unit</b>	<b>Dwelling Units per Park Acre</b>
Single-Family	460 sf/du	95 du/ac.
Multi-Family	341 sf/du	128 du/ac.

<b>Table H.3 Village 2 Comprehensive SPA Plan Preliminary Parkland Dedication Requirements City Ordinance Applied to Planning Prediction of Unit Numbers and Types</b>			
<b>Dwelling Unit Type*</b>	<b>Number of D.U.</b>	<b>Parkland Required/DU</b>	<b>Required Acres</b>
Single Family Detached	(-70)	460 sf/du	-0.7
Multiple Family	1,632	341 sf/du	12.8
<b>TOTALS</b>	<b>1,562</b>		<b>12.1</b>

\* Dwelling unit type - Note that number and type of units listed reflect 'Land Use Designations' listed in the Otay Ranch General Development Plan, since this level of information is all that is available at the time of this document's preparation irrespective of underlying zoning district. Actual fee obligation calculation to be based on implementing ordinance definition of dwelling unit type irrespective of underlying zoning district containing said dwelling unit. Definitions of dwelling unit types used for calculating park obligations are based upon from the City's Parkland Dedication Ordinance CVMC chapter 17.10. These definitions differ from the way unit types are defined from a planning, land-use and zoning perspective that uses unit density per acre to categorize the type of unit. CVMC chapter 17.10 uses product type to categorize the type of unit distinguishing between attached and detached units. Consequently, the figures in this chart are preliminary estimates, and shall be recalculated at the time when the obligations are due as determined by chapter 17.10 of the CVMC.

The City's Parklands and Public Facilities Ordinance (CVMC 17.10) is based on the Quimby Act. Based on the City's Parklands and Public Facilities Ordinance, the parkland requirement is approximately 13.1 acres (see Table H.3).

**IX.6. Park Adequacy Analysis**

The project phasing (Table B.3) and Site Utilization Plan identifies the park designations and acreage that are also shown in Table H.4. Table H.4 identifies the current Village 2 SPA Plan Park Credits and the Village 2 Comprehensive SPA Plan Amendment additional park acreages. 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 satisfying the project's parkland dedication as measured against the City's Parkland Dedication Ordinance. The Neighborhood Park will be graded and offered for dedication in whatever development phase is initiated by the project developers. The City's Parkland Dedication Ordinance requirements for the project are outlined in Table H.4.

<b>Table H.4 Village 2 Comprehensive SPA Plan Park Acres and Eligible Credits<sup>23</sup></b>				
<b>Park Identification</b>	<b>Net Acreage</b>	<b>Phase</b>	<b>Proposed Credit %</b>	<b>Eligible Credit Ac.</b>
<b>Approved Villages 2, 3, Portion of Village 4 SPA</b>				
P-1 - Town Square	2.1	Red	100%	2.1
P-2 – Neighborhood Park	7.1	Red	100%	7.1
P-3 - Neighborhood Park	6.9	Purple	100%	6.9
P-4 - Community Park	46.5	White <sup>24</sup>	100%	42.3
<b>Subtotal Village 2, 3, Portion of 4 SPA Acres Eligible for Credit Against PAD</b>				<b>58.4</b>
<b>Villages 2, 3, Portion of Village 4 SPA PAD Requirements</b>				<b>27.1</b>
<b>Subtotal Villages 2, 3, Portion of Village 4 SPA Credits</b>				<b>31.3</b>
<b>Residual Community Park Obligation from Villages 1, 1 West, 5, 6 and 7 SPA</b>				<b>31.6</b>
<b>Subtotal Villages 2, 3, Portion of Village 4 SPA Surplus (Deficit)</b>				<b>( 0.3)<sup>25</sup></b>
<b>Village 2 Comprehensive SPA Plan Amendment</b>				
P-1 – Neighborhood Park	- 0.7	Red	100%	(0.7)
P-2 – Neighborhood Park	No Change	Red	100%	0.0
P-3 - Neighborhood Park	+ 0.7	Purple	100%	0.7 <sup>26</sup>
P-4 - Community Park	+ 4.2	White <sup>26</sup>	100%	4.2 <sup>27</sup>
P-5 – Neighborhood Park	+ 5.1	Yellow	100%	5.1
P-6 – Neighborhood Park	+ 3.0 <sup>28</sup>	Blue	100%	3.0 <sup>27</sup>
<b>Subtotal Village 2 Comprehensive SPA Acres Eligible for Credit Against PAD</b>				<b>12.3</b>
<b>Village 2 Comprehensive SPA PAD Requirements</b>				<b>12.2</b>
<b>Subtotal Village 2 Comprehensive SPA Plan Surplus (Deficit)</b>				<b>0.1</b>
<b>Total Surplus (Deficit)</b>				<b>( 0.2)<sup>25</sup></b>

<sup>23</sup> Parkland fee and acreage obligations are subject to change pending changes in the dwelling unit types and numbers, or clarification of unit type at the time when obligations are due.

<sup>24</sup> Community Park site is required to be delivered to the city in the first development phase of the Village 2, 3, Portion of Village 4 SPA.

<sup>25</sup> 0.3 Acre deficit represents the portion of original Village 2 deficit that is attributable to Sunwood. Acreage to be made up through payment of in-lieu fee.

<sup>26</sup> Approximately 31.6 acres of the 46.5 acres of Community Park represents residual obligation resulting from the development of the Otay Ranch Villages 1, 1 West, 5, 6 and 7 SPAs.

<sup>27</sup> Credits available only after relocation of City of San Diego water line out of park area.

<sup>28</sup> Additional 0.3 acres available in R-4B(b) Lot 2 can be added to P-6 Park, if necessary, to meet parkland obligation.



The proposed development of the project requires per the Quimby Act approximately 15.18 acres (see Table H.1) for public parkland. The project SPA plan identifies 13.1 acres net for public Park lands. The difference in the proposed Park requirements and the obligation may be met, per the City's Parkland Development Ordinance (CVMC Chapter 17.10) provisions, through the payment of fees, dedication of offsite parkland or a combination of both fees and land dedication.

Table H.5 is a comparison of park acreage demands and supply east of I-805 for existing, approved projects, as well as the phased addition of the project. A review of the existing and approved park demands for Chula Vista east of I-805 including the project indicates a projected 2017 demand of approximately 486.16 acres of Neighborhood and Community Park (GMOC 2013 Annual Report). The 2017 projected supply of park acreage east of I-805, 426.88 acres, is approximately 59.28 acres less than the projected demand. The projected shortfall does not include the park obligations of the Village 2 Comprehensive SPA Plan or future Otay Ranch Villages. Map conditions will be introduced to accompany Comprehensive SPA Tentative Maps to help bring park construction in line with population growth.

<b>Table H.5 Estimated Park Acreage Demand Compared to Supply East of Interstate 805</b>					
	<b>Population East of I-805<sup>29</sup></b>	<b>Demand Park Acres<sup>30</sup></b>	<b>Existing Park Acres</b>	<b>Eligible Credit Acres</b>	<b>Net Acres +/-Standard</b>
Existing	135,205	405.62	418.01 <sup>31</sup>	418.01	+12.39
Forecasted Projects 2013 to 2017	26,845 <sup>32</sup>	80.54	8.87 <sup>33</sup>	8.87	-71.67
<b>Total</b>	<b>162,050</b>	<b>486.16</b>	<b>426.88</b>	<b>426.88</b>	<b>-59.28</b>

## **IX.7. Open Space, Trails and Recreation**

### **A. Open Space**

The Otay Ranch GDP established a 12-acre per 1,000 residents of active or passive recreation as an open space standard. This standard is being met by the on-site dedication of open space acreage and through conveyance of land to the Otay Ranch Preserve pursuant to the Otay Ranch Resource Management Plan (RMP). The location and general extent of open space is determined at the GDP level of planning.

As part of the Villages 2, 3 and Portion of Village 4 SPA Plan, the project was required to provide approximately 101.5 acres of open space (predicted population/1,000 x 12 acres = 101.5 acres of open space). The Villages 2, 3 and Portion of Village 4 SPA Plan provided approximately 386.1 acres of on-site open space that includes Preserve areas (approximately 182.6 acres) and the use of manufactured slopes together with undisturbed, non-Preserve areas (approximately 203.5 acres).

<sup>29</sup> Population figures are from the 2013 GMOC Annual Report.

<sup>30</sup> Based on City Threshold requirement of 3 acres of neighborhood and community parkland per 1,000 residents east of I-805.

<sup>31</sup> Existing Park Acreage from 2013 GMOC Annual Report.

<sup>32</sup> Population figure derived from the Table B.1.

<sup>33</sup> Park acreage from Park Acreage Table from the 2013 GMOC Annual Report, Appendix B, Workshop Reports.

The 2012 Village 2 SPA Amendment increased the population by 632 residents, therefore increasing the open space demand by 7.56 acres (632 predicted population/1,000 x 12 acres = 7.56 acres of open space). When added to the existing Villages 2, 3 and Portion of Village 4 SPA Plan demand of 101.5 acres, this totaled 109.06 acres of open space. The 386.1 acres provided by the Villages 2, 3 and Portion of Village 4 Site Utilization Plan exceeded the Otay Ranch GDP open space requirement.

The 2014 Village 2 Comprehensive SPA Plan Amendment increased the population by approximately 5,061 residents, therefore increasing the open space demand by 60.7 acres. When added to the existing Villages 2, 3 and Portion of Village 4 SPA Plan, as amended, the demand of 109.06 acres, this totals 169.76 acres of open space. The 386.1 acres provided by the Villages 2, 3 and Portion of Village 4 Site Utilization Plan still exceeds the Otay Ranch GDP open space requirement.

The 386.1 acres of Open Space lands as indicated on the Site Utilization Plan shall be preserved through the dedication of open space easements and/or lots to the City, CFD or other appropriate agency, or to a Master Community Association, which will be determined at the Tentative Map level of approval.

## **B. Trails**

The SPA Plan area has been designed to accommodate the trails program described by the Otay Ranch Overall Design Plan and the City's Greenbelt Master Plan. The plan has been designed as a pedestrian-oriented village and provides bicycle, cart and pedestrian circulation. All circulation elements within the SPA Plan area have been located and designed to be as accessible as possible, however, the paseos and off-street trails contain steep topography that may limit bicycle and cart travel.

The Trails Plan is illustrated in Exhibit 9. The landscape treatment and design elements of village trails are also illustrated and described in the SPA Design Plan. A summary of the components of the trail plan is provided below.

### **1. Regional Community Trails**

Chula Vista Regional Trails are located on the north side of Olympic Parkway, west side of La Media Road and east side of Heritage Road. These trails are located adjacent to the roadways and may meander within the street right-of-ways and 75-foot landscape buffers. The decomposed granite trails are 12 feet wide to accommodate pedestrians and bicycles.

### **2. Otay Ranch Village Greenway**

The Otay Ranch GDP provides for a Village Greenway to be located through Otay Ranch, specifically through the villages to connect open spaces. The Village Greenway location will be determined in conjunction with the Community Park Design.

### **3. Village Pathway**

Village Pathways are inter-village low speed electric vehicle and pedestrian paths that link all of the Otay Valley Parcel villages and particularly provide access to the regional transit-way stations. In Village 2 & a Portion of 4, a Village Pathway is proposed to extend from the northeast area of the village through the commercial area and west to Heritage Road.

The Otay Ranch Overall Design Plan suggests pedestrian bridges may be used in special circumstances to provide crossings over arterial streets. Proposed locations for pedestrian bridges crossing Olympic Parkway and La Media Road are illustrated on Exhibit 9. These locations would connect Village 2 & a Portion of 4 with Village 1 to the north and Village 2 & a Portion of 4 and with Village 6 to the east.

**4. Village Trails**

Village Trails provide alternative circulation routes to village streets for pedestrians and bicycles separate from roadways. Trails are located within open space in the SPA Plan area. The landscape treatment and design elements of trails are addressed more fully in the Montecito Design Plan (Chapter Four of the SPA Plan).

**5. Village Streets**

The village streets are designed to promote pedestrian, bicycle and low speed electric vehicle travel. Low speed electric vehicle and bicycles may travel on village streets of 35 mph or less. Village Pathway streets may provide off-street low speed electric vehicle and bicycle travel. Sidewalks are provided on all village streets.

**6. Pedestrian Over-crossings (POCs)**

Pedestrian over-crossings enhance inter-village connectivity and promote the walkability of the Otay Ranch. The two POCs connected to Village 2 & a Portion of 4 complete a continuous Village Pathway and Regional Trail network that loops through and connects Villages 1, 5, 6 and 2 avoiding at-grade pedestrian crossings of arterial streets.

**C. Village Park and Recreation Program**

The project SPA provides the park, recreation, open space and trails facilities within the plan area. The Otay Ranch Parks and Recreation Facility Implementation Plan (adopted by the City Council on October 28, 1993) identifies the parks facility improvement standards for Otay Ranch. The City of Chula Vista Park and Recreation Department conducted subsequent facilities needs assessments and proposed some modifications to the adopted Otay Ranch Plan. Modifications to the adopted Otay Ranch Plan are included in the City of Chula Vista Parks and Recreation Master Plan, November 12, 2002. The SPA Park Master Plan identifies the proposed types, quantities and location of the facilities provided at each park site in the SPA Plan area. The variety of recreational elements proposed and the recreational opportunities envisioned are discussed in the Parks & Recreation chapter of the SPA Plan.

**IX.8. Financing Park Facilities**

Chapter 17.10 of the Chula Vista Municipal Code, as amended, governs the financing of parkland and improvements. Included as part of the regulations are Park Acquisition and Development (PAD) fees established for the purpose of providing neighborhood and community parks. The Ordinance provides that fees are paid to the City prior to approval of a final subdivision map, or in the case of a residential development that is not required to submit a final map, at the time of the final building permit application.

The Village 2 Comprehensive SPA Plan Amendment is responsible for both the park development component and the acquisition component PAD Fees. The project parkland demand is 12.1 acres based on CVMC 17.10 (Table H.3). The project provides 12.3 additional net acres of parkland to the Village 2 SPA Plan. Any difference in the proposed Park requirements and the obligation may be met through the payment of fees, dedication of offsite parkland or a combination of both fees and land dedication.

<b>Table H.6</b>			
<b>Park Acquisition and Development (PAD) Fees (Preliminary Calculation)</b>			
<b>Acquisition In-Lieu Component Only<sup>34</sup></b>			
<b>Land Use</b>	<b>Dwelling Units*</b>	<b>Fee/DU</b>	<b>Total Fees</b>
Single Family	-70	\$12,676	-\$887,320
Multi-Family	1632	\$9,408	\$15,353,856
Total	1562		\$14,466,536

\* Dwelling unit type - Note that number and type of units listed reflect 'Land Use Designations' listed in the Otay Ranch General Development Plan, since this level of information is all that is available at the time of this document's preparation irrespective of underlying zoning district. Actual fee obligation calculation to be based on implementing ordinance definition of dwelling unit type irrespective of underlying zoning district containing said dwelling unit. Definitions of dwelling unit type used for calculating park obligations are based upon from the City's Parkland Dedication Ordinance CVMC chapter 17.10. These definitions differ from the way unit types are defined from a planning, land-use and zoning perspective that uses unit density per acre to categorize the type of unit. CVMC chapter 17.10 uses product type to categorize the type of unit distinguishing between attached and detached units. Consequently, the figures in this chart are preliminary estimates, and shall be recalculated at the time when the obligations are due as determined by chapter 17.10 of the CVMC.

Note: Land obligations are largely being met through land dedication per the V2 parks agreement.

PAD Fees are subject to periodic annual increases. Table H.6 identifies the fees calculated for the acquisition component of the PAD fees while Table H.7 identifies the fees calculated for the parkland development component of the PAD fees. These fees are estimates only and are dependent upon the actual numbers of units filed on the final map. Fees are also subject to change by the City Council. Single Family dwelling units are defined as all types of single family detached housing and condominiums. Multi-Family dwelling units are defined as all types of attached housing including townhouses, attached condominiums, duplexes, triplexes and apartments.

<b>Table H.7</b>			
<b>Park Acquisition and Development (PAD) Fees (Preliminary Calculation)</b>			
<b>Development In-Lieu Component Only<sup>35</sup></b>			
<b>Land Use</b>	<b>Dwelling Units*</b>	<b>Fee/DU</b>	<b>Total Fees</b>
Single Family	-70	\$5,106	-\$357,420
Multi-Family	1632	\$3,788	\$6,182,016
Total	1562		\$5,824,596

\* Dwelling unit type - Note that number and type of units listed reflect 'Land Use Designations' listed in the Otay Ranch General Development Plan, since this level of information is all that is available at the time of this document's preparation irrespective of underlying zoning district. Actual fee obligation calculation to be based on implementing ordinance definition of dwelling unit type irrespective of underlying zoning district containing said dwelling unit. Definitions of dwelling unit type used for calculating park obligations are based upon from the City's Parkland Dedication Ordinance CVMC chapter 17.10. These definitions differ from the way unit types are defined from a planning, land-use and zoning perspective that uses unit density per acre to categorize the type of unit. CVMC chapter 17.10 uses product type to categorize the type of unit distinguishing between attached and detached units. Consequently, the figures in this chart are preliminary estimates, and shall be recalculated at the time when the obligations are due as determined by chapter 17.10 of the CVMC.

<sup>34</sup> Land obligations can be met through land dedication.

<sup>35</sup> Park development obligations can be met through the payment of fees or delivery of turnkey parks by the developer.

## IX.9. Financing Recreation Facilities

Chapter 17.10 of the CVMC, which requires the collection of fees from residential developments to pay for parkland acquisition and various park facilities within the City of Chula Vista, is subject to changes by the City Council from time to time. On October 25, 2005, the City Council approved Ordinance 3026 relating to the periodic annual review and adjustment of park acquisition and development fees. Approval of Ordinance 3026 resulted in an increase fee for parkland acquisition. In January of 2004 the Chula Vista City Council approved Ordinance 2945. This Ordinance amended Chapter 17.10 of the CVMC, which requires the collection of In-Lieu Park Acquisition and Development Fees from residential developments that are not required to submit a subdivision map or parcel map.

Some of the previous council actions that contributed to an increase in the in-lieu fees for park development and land acquisition are Ordinances No. 2886 and 2887 (both approved on November 19, 2002). Ordinance 2886 amended Chapter 17.10 of the CVMC to update the Parks Acquisition and Development Fees. Ordinance 2887 amended Chapter 3.50 of the Municipal Code, as detailed in the *"Public Facilities DIF, November 2002 Amendment"*, adding a new recreation component to the Public Facilities DIF, updating the impact fee structure and increasing the overall fee.

Chapter 17.10 of the Chula Vista Municipal Code, first adopted in 1971, details requirements for parkland dedication, park improvements and the collection of in-lieu fees (i.e., PAD fees) from developers of residential housing in subdivisions or in divisions created by parcel maps, both east and west of I-805. PAD fees cover parkland acquisition and the cost of related capital items associated with parkland development, including:

- Drainage Systems
- Street Improvements
- Lighted Parking Lots
- Concrete Circulation Systems
- Security Lighting
- Park Fixtures (*drinking fountains, trash receptacles, bicycle racks, etc.*)
- Landscaping (*including disabled accessible surfacing*)
- Irrigation Systems
- Restrooms and Maintenance Storage
- Play Areas (*tot lots, etc.*)
- Picnic Shelters, Tables, Benches
- Utilities
- Outdoor Sports Venues (*tennis courts, baseball/softball fields, basketball courts, multi-purpose sports fields, skateboard and roller blade venues*)

In addition to parks-related items, a 1987 revision called for the dedication, within community parks, of Community centers facilities to serve newly developing communities, including: Community centers; Gymnasiums and Swimming pools.

Historically, PAD fees have not been sufficient to construct these additional large capital items. However, major recreation facilities are now funded through a newly created component of the Public Facilities DIF. The major capital items to be included in the new component are: community centers, gymnasiums, swimming pools, and senior/teen centers. Based on the Parks and Recreation Master Plan, 140,595 square feet of major recreation facilities will be required to meet new development growth through build-out at a gross construction cost of over \$32 million. Since the demand for major public recreation facilities is created by residential development, facilities costs are not spread to commercial/industrial development. Table H.8 provides an estimate of the Recreational PDIF Fees for the project. Table H.8 presents the net increase (see Table B.3) for the SPA Amendment only and does not include the originally Approved SPA DUs and Commercial/Industrial acreages.

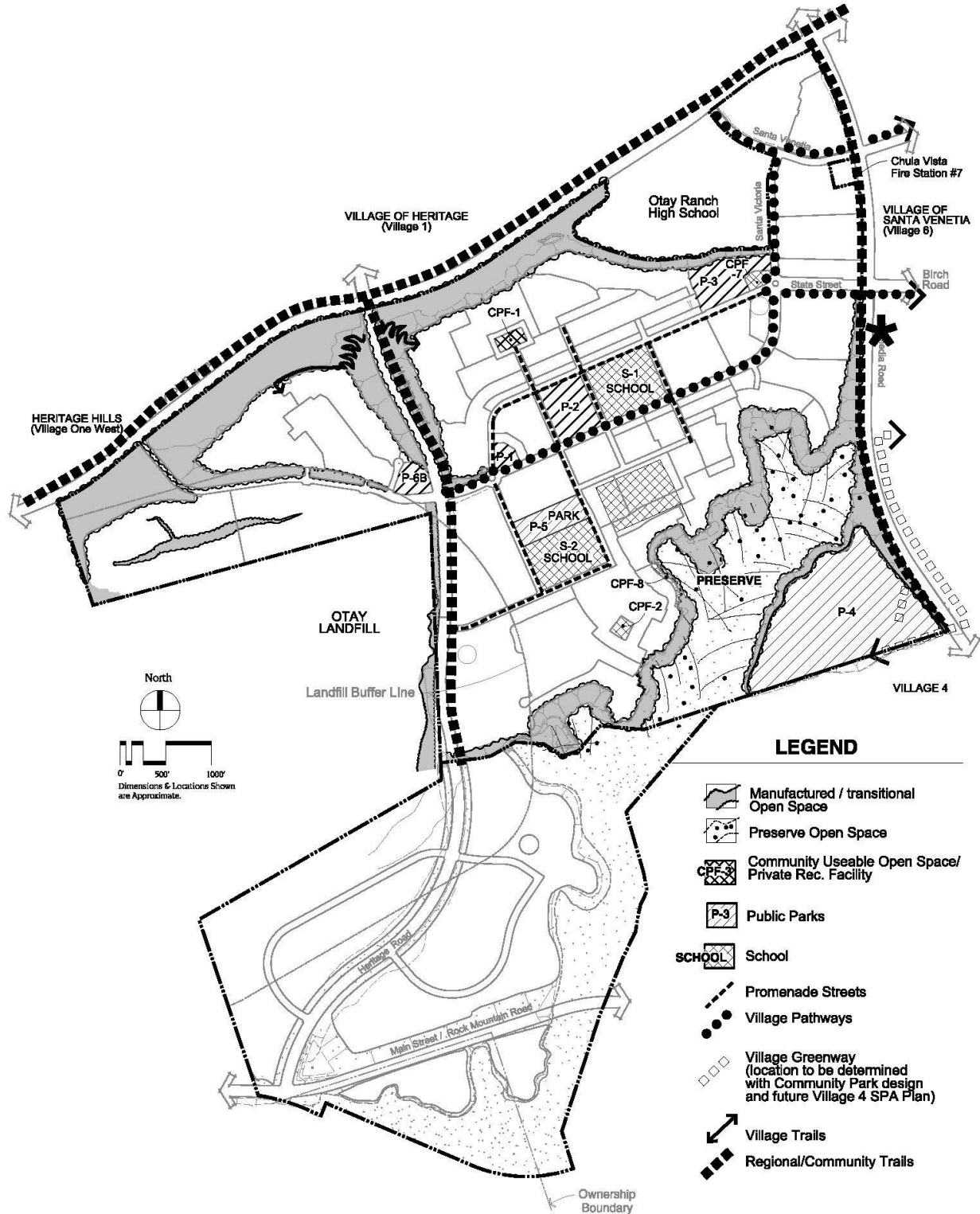
<b>Table H.8</b>				
<b>Otay Ranch Village 2 Comprehensive SPA Plan</b>				
<b>Public Facilities Fees for Recreation<sup>36</sup> (Preliminary Calculation)</b>				
<b>Land Use</b>	<b>Dwelling Units</b>	<b>Acres</b>	<b>Fee/DU or Ac.</b>	<b>Total Fees</b>
Single Family	-70		\$1,201	-\$84,070
Multi-Family	1632		\$1,201	\$1,960,032
Mixed Use & Com'l		3.8	\$0	\$0
<b>Total</b>	<b>1562</b>			<b>\$1,875,962</b>

**IX.10. Threshold Compliance and Recommendations**

- A. 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 the project.
- B. On a project-level, the Neighborhood Park and the Community Park acreage provided within Village 2 Comprehensive SPA nearly meets 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, pay fees at a rate in effect at the time of final map approval and dedicate land, or a combination thereof, as required by CVMC Chapter 17.10, Parklands and Public Facilities unless otherwise approved by the Director of General Services.

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<sup>36</sup> The PFDIF Fee is subject to change as it is amended from time to time. The total number of dwelling units and type of dwelling unit filed on the final map or for which building permits are required shall determine the actual fee amount.



Source: Draft Village of Montecito & Otay Ranch Business Park SPA Plan, July 2014

## Parks and Open Space Exhibit 9

## **X. WATER**

### **X.1. Threshold Standard**

1. Developer will request and deliver to the City a service availability letter from the Water District for each project.
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 requests an evaluation of their ability to accommodate the forecast and continuing growth. The Districts' 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 forecasted 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.

### **X.2. Service Analysis:**

The Otay Water District (OWD) will provide water service for Otay Ranch Village 2 Comprehensive SPA Plan area.

*The Overview of Water Service for Otay Ranch Villages 2, 3, and a Portion of 4 and PA 18b, November 28, 2005, Dexter-Wilson Engineering, Inc.*, was the basis for the water section of the original and 1<sup>st</sup> supplemental PFFP. The Dexter-Wilson report provided the recommendations for improvements in zones 624 and 711 to provide water service to the Village 2 development. In addition to potable water, the OWD will be the purveyor of recycled water to the project.

*The Village 2 Comprehensive SPA Amendment Water System Evaluation, February 14, 2013, Dexter Wilson Engineering, Inc.*, is a memorandum that provides an evaluation of the effect of the amended SPA Plan will have on the water system. This PFFP will refer to this memorandum as the Dexter Wilson 2013 Memorandum. The memorandum states that the backbone water system for Village 2 has already been constructed and that it is adequate to support the proposed additional development.



### **X.3. Project Processing Requirements**

The SPA Plan and the PFFP are required by the Growth Management Program to address the following issues for water services.

- A. Identify phased demands in conformance with street improvements and in coordination with the construction of sewer facilities.
- B. Identify location of facilities for onsite and offsite improvements in conformance with the master plan of the water district serving the proposed project.
- C. Provide cost estimates and proposed financing responsibilities.
- D. Identify financing methods.
- E. A Water Conservation Plan shall be required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDUs of water demand or greater).

### **X.4. Existing Conditions**

The California Urban Water Management Planning Act (UWMP) requires that each urban water supplier providing water for municipal purposes, either to more than 3,000 customers, or more than 3,000 acre feet of water annually, must prepare, adopt, and update a UWMP at least once every five years. This applies to Metropolitan Water District (MWD), San Diego County Water Authority SDCWA, and its member agencies, including the OWD. The intent of an UWMP is to present information on water supply, water usage/demand, recycled water, and water use efficiency programs within a water district's service area over a 25 year time frame.

The UWMP process ensures that water supplies are being planned to meet future growth. The most current supply and demand projections are contained in the 2010 UWMPs of MWD, SDCWA, and OWD. San Diego County Water Authority member districts rely on the UWMPs and Integrated Resources Plans (IRPs) of MWD and the Regional Water Facilities Master Plan of SDCWA to document supplies available to meet projected demands.

In the 2010 UWMPs, MWD, SDCWA, and all SDCWA member agencies, including OWD, have determined that adequate water supplies would be available to serve existing service areas under normal year, single dry year, and multiple dry year conditions through the year 2035.

The GMOC annually distributes a questionnaire to relevant city departments and public facility and service agencies to monitor the status of threshold standards compliance. The response from OWD in support of the 2013 GMOC Annual Report included the issue of existing water system adequacy to serve projected growth for Chula Vista. The response further identified OWD's capital improvement programs required to serve the forecasted water demands and identified a list of capital improvement projects (CIPs) that would need to be implemented in order to meet projected demand. The OWD concluded that the existing potable and recycled water systems including their CIP's should be adequate to meet the forecasted growth with the City of Chula Vista over the next five year time frame. However, the State's water supply continues to face the climatological, environmental, legal and other challenges that impact water supply sources.

- A. Metropolitan Water District:** In November 2010, MWD adopted their 2010 Regional UWMP, which evaluates water supply reliability, over a 20-year period, for average, single-dry, and multiple-dry years within its service area. MWD developed estimates of total retail demands for the region, factoring in the impacts of conservation. The water reliability analysis identifies both the current supplies and supplies under development to meet projected demands. MWD's reliability assessment showed that MWD can maintain reliable water supplies to meet projected demands through the year 2035. MWD also identified a planning buffer supply intended to protect against the risk that future demands could be higher than projected. As part of its implementation of the planning buffer, MWD periodically evaluates water supply development, supply conditions, and projected demands to ensure that the region is not under or over developing supplies. The planning buffer will ensure that Southern California, including San Diego County, will have adequate water supplies to meet long-term future demands.
- B. San Diego County Water Authority:** The SDCWA service area covers approximately 951,000 acres and encompasses the western third of San Diego County. SDCWA has 24 member agencies, including OWD. SDCWA is responsible for ensuring a safe and reliable water supply to support the region's economy and quality of life for over three million residents. SDCWA imports between 70% and 95% of the water used in the San Diego region from MWD. In 2008, MWD provided 71% of the San Diego region's water supply. Most of this water is obtained from the Colorado River and the State Water Project (SWP) through a system of pipes, aqueducts, and associated facilities. Historically, SDCWA has relied on imported water supplies purchased from MWD to meet the needs of its member agencies. SDCWA is the largest MWD member agency in terms of deliveries, accounting for nearly 25% of MWD's delivered water.

According to the SDCWA 2010 UWMP, the San Diego region has reduced water usage over 50,000 acre feet average during the past three years. Conserved agricultural transfer water from the Imperial Valley has begun flowing to the San Diego region. This source provided approximately 70,000 acre feet in 2010 and will provide approximately 200,000 acre feet by 2021. This relatively new source of water is the result of SDCWA entering into the Quantification Settlement Agreement (QSA) with other water agencies in October 2003. The QSA resolved long-standing disputes regarding Colorado River water use among several agencies, and established a water budget for the agricultural agencies. This resolution permitted the implementation of several water conservation and transfer agreements, including the SDCWA/Imperial Irrigation District (IID) transfer agreement.

The SDCWA UWMP contains documentation of existing and planned water supplies. These supplies include MWD (imported Colorado River water and SWP water), and local member agency supplies that include (1) IID water transfer supplies; (2) supplies from conservation projects to line the Imperial Valley's All-American Canal and the Coachella Valley's Coachella Canal; and (3) development of a seawater desalination facility at the Encina Power Plant in Carlsbad, which is anticipated to produce 56,000 acre feet per year of water supplies. Additionally, since 1980, approximately 5 to 30% of member agency water has come from local sources, primarily from surface water reservoirs. Recycled water and groundwater recovery projects are growing in importance in the region. These projects coupled with water conservation efforts have made SDCWA member agencies less dependent on imported water.

Based on the imported and member agency local water sources, SDCWA estimates that it, along with member agency local sources, will be able to supply 647,284 acre feet of water in 2015. Therefore, according to the MWD and SDCWA 2010 UWMPs, there is available water to meet all of the region's anticipated demand, including the development of the Village 2 Comprehensive SPA Project, in average/normal and dry water years, as shown in Table I.1, and I.2.

<b>Table I.1</b>					
<b>Average/Normal Water Year Supply and Demand Assessment (acre feet/yr.)</b>					
<b>Local Supplies</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
Surface Water	48,206	47,940	47,878	47,542	47,289
Water Recycling	38,660	43,728	46,603	48,278	49,998
Groundwater	11,710	11,100	12,100	12,840	12,840
Groundwater Recovery	10,320	15,520	15,520	15,520	15,520
Seawater Desalination	0	56,000	56,000	56,000	56,000
<i>Imported Supplies</i>					
IID Water Transfer	100,000	190,000	200,000	200,000	200,000
Supply from MWD	358,189	230,601	259,694	293,239	323,838
Coachella Canal and All American Canal Lining Projects	80,200	80,200	80,200	80,200	80,200
<b>Total Projected Supplies</b>	<b>647,285</b>	<b>675,089</b>	<b>717,995</b>	<b>753,619</b>	<b>785,685</b>
<b>Total Estimated Demands<sup>1</sup></b>	<b>647,285</b>	<b>675,089</b>	<b>717,995</b>	<b>753,619</b>	<b>785,685</b>
<b>Difference</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<sup>1</sup> With Conservation

Source: Supplemental Environmental Impact Report for Otay Ranch Village 2 Comprehensive SPA Plan Amendment

<b>Table I.2</b>					
<b>Single Dry Water Year Supply and Demand Assessment (acre feet/yr.)</b>					
<b>Local Supplies</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
Surface Water	17,932	17,932	17,932	17,932	17,932
Water Recycling	38,660	43,728	46,603	48,278	49,998
Groundwater	9,977	9,977	9,977	9,977	9,977
Groundwater Recovery	10,320	15,520	15,520	15,520	15,520
Seawater Desalination	0	56,000	56,000	56,000	56,000
<i>Imported Supplies</i>					
IID Water Transfer	100,000	190,000	200,000	200,000	200,000
Supply from MWD	430,431	305,101	338,501	376,023	409,389
Coachella Canal and All American Canal Lining Projects	80,200	80,200	80,200	80,200	80,200
<b>Total Projected Supplies</b>	<b>687,520</b>	<b>718,458</b>	<b>764,733</b>	<b>803,930</b>	<b>839,016</b>
<b>Total Estimated Demands<sup>1</sup></b>	<b>687,520</b>	<b>718,458</b>	<b>764,733</b>	<b>803,930</b>	<b>839,016</b>
<b>Difference</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<sup>1</sup> With Conservation

Source: Supplemental Environmental Impact Report for Otay Ranch Village 2 Comprehensive SPA Plan Amendment

- C. Otay Water District:** The Village 2 Comprehensive SPA Plan is within the OWD, which provides water services to a large portion of San Diego East County and Eastern Chula Vista, including the EastLake community, Otay Ranch, and Otay Mesa along the U.S./Mexico International Border. OWD covers 137 square miles with approximately 450 miles of pipelines, 21 pump stations, and 37 reservoirs with a total storage capacity of approximately 190 million gallons. OWD provides 90% of its water service to residential and 10% to commercial, industrial, and other land uses. Average daily consumption is approximately 40,324 acre feet. OWD also operates the Ralph W. Chapman Water Recycling Facility.

## **X.5. Adequacy Analysis**

### **A. 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 city has adopted guidelines for the preparation and implementation of the Water Conservation Plan.

A Water Conservation Plan was prepared for the Village 2 SPA project in February 2006 by Dexter Wilson Engineering, Inc. The subsequent Village 2 SPA Amendment was also subject to the requirements of the 2006 WCP.

The Village 2 Comprehensive SPA Plan complies with the requirements of the Chula Vista Model Landscape Ordinance (CVMC 20.12) by preparing the *Otay Ranch Villages 2 SPA Amendment Water Conservation Plan, April, 2014, by Dexter-Wilson Engineering, Inc.* The WCP provides an analysis of water usage requirements of the proposed project, as well as a detailed plan of mandatory and non-mandatory 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 is presented in conjunction with the SPA Plan document as Chapter 9 and therefore is not included in the PFFP.

### **B. Otay Ranch Village 2 Comprehensive SPA Water Demand**

Table I.3 presents the duty factors used in projecting the total average day potable and recycled water demands for the project. The required fire flows and durations are also listed. The City of Chula Vista utilizes the Uniform Fire Code for determining required fire flows and durations for new development. For single-family residences, a fire flow of 1,500 gpm for duration of two hours is typically required.

Land Use Designation	Domestic Demand	Required Fire Flow	Required Fire Flow Duration Hours
Single Family-Medium (1-3 DU/AC)	850 gpd/unit	1,500	2
Single Family-High (3-8 DU/AC)	500 gpd/unit	1,500	2
Multi-Family (>8 DU/AC)	300 gpd/unit	2,500	2
Schools	1,785 gpd/ac	3,500	3
Commercial	1,785 gpd/ac	3,000	3
CPF, Fire Station	893 gpd/ac	3,000	3
Industrial	893 gpd/ac	5,000	4
Irrigation (Recycled Water)	2,155 gpd/ac	--	--

*Source: Dexter Wilson Engineering*

### 1. Potable Water

The OWD currently provides water service to the Village 2 approved project and will provide water to the Village 2 Comprehensive SPA Amendment areas. The projected water demands for the Village 2 SPA were evaluated in the November 2010 *Water Resources Master Plan (WRMP) Amendment for the Otay Water District*, dated November 2010 by Dexter Wilson. Table I.4 summarizes the projected water demands from the 2010 WRMP. Table I.5 summarizes the projected water demands based on the current approved Village 2 plan. Table I.6 provides a comparison between the November 2010 WRMP and current projections.

Description	Potable Water Demand, gpd
624 Zone	147,967
711 Zone	838,479
<b>Total</b>	<b>986,446</b>

*Source: Dexter Wilson 2013*

Description	Potable Water Demand, gpd
624 Zone	179,992
711 Zone	1,274,263
<b>Total</b>	<b>1,454,255</b>

*Source: Dexter Wilson 2013*

<b>Table I.6</b>				
<b>Village 2 Comprehensive SPA Plan</b>				
<b>Water Demand Summary</b>				
<b>Pressure Zone</b>	<b>Projected Demand, GPD</b>		<b>Demand Increase</b>	
	<i>2010 WRMP</i>	<i>Current Proposed</i>	<i>GPD</i>	<i>AFY</i>
624 Zone	147,967	179,992	32,025	36
711 Zone	838,479	1,274,263	435,784	488
<b>Total</b>	<b>986,446</b>	<b>1,454,255</b>	<b>467,809</b>	<b>524</b>
<b>Notes:</b> GDP = General Development Plan AFY = acre-feet per year				

*Source: Dexter Wilson 2013*

The projected water demand is increased by 467,809 gallons per day (gdp) or 524 ac-ft/yr in the current scenario as compared to the 2010 WRMP. The backbone of the on-site water infrastructure system has already been installed since the approval of the project in 2006. The existing on-site water infrastructure system has been determined to be adequate to support the proposed project. Additionally, mitigation measure 5.13.1-1 from the 2006 EIR required a final Subarea Master Plan to be prepared prior to the approval of the first final map for development occurring within Village 2.

As shown in Table I.6, the projected water demand for the Village 2 Comprehensive SPA project is higher than what was estimated in the 2010 OWD WRMP. This information was provided to OWD for use in regional water supply planning and has been provided as the basis for a Water Supply Assessment and Verification (WSAV) report that was approved by OWD (OWD 2014). Further, the OWD has issued a “will serve” letter dated January 28, 2014 confirming that adequate water supplies will be available to serve the proposed project. Per OWD’s will serve letter, OWD has approved the required Water Demand Study (Dexter Wilson 2013) and Water Supply Assessment and Verification report on November 6, 2013. As stated in the will serve letter, the developer will be required to annex parcel 644-310-02-00 into an improvement district, and will be required to submit improvement plans or applicable construction changes to existing improvement plans for OWD approval and extend the water mains to front all properties in question. If service laterals do not exist for the project, the applicant would be required to pay to have OWD install them prior to OWD providing water service to the area. Moreover, According to the Dexter Wilson 2013 Memorandum, no changes to the existing Village 2 water infrastructure system will be required as a result of the proposed Village 2 Comprehensive SPA Plan.

Normally, the potable water distribution system is designed to maintain static pressures between 65 psi and 200 psi. This standard is used to initially divide a project between water service zones. According to Dexter Wilson Engineering, the potable water distribution system has been designed to yield a minimum of 40 psi residual pressure at any location under peak hour demand flows, and a minimum residual pressure of 20 psi during maximum day demand plus fire flow conditions. Potable water mains have been sized to maintain a maximum velocity of 10 feet per second under a maximum day plus fire flow scenario and a maximum velocity of 6 feet per second under peak hour flow conditions.

<b>Table I.7 Projected Recycled Water Demands For Otay Ranch Village 2 Comprehensive SPA</b>					
<b>Land Use</b>	<b>Area, Acres</b>	<b>Percentage to be Irrigated</b>	<b>Irrigated Acreage</b>	<b>Recycled Water Irrigation Factor, gpd/ac</b>	<b>Average Recycled Water Demand, gpd</b>
Open Space, Slopes, Parkways	120 <sup>1</sup>	100	120.0	2,155	258,600
Parks	68.6	100	68.6	2,155	147,833
Schools	19.8	20	4.0	2,155	8,620
CPF	12.6	10	1.3	2,155	2,802
Mixed Use/Commercial	22.5	10	2.25	2,155	4,849
Multi-family	146.2	15	21.9	2,155	47,195
Industrial	91.4	5	4.6	2,155	9,913
<b>Total</b>	<b>479,812</b>				
<sup>1</sup> Preliminary Estimate					

*Source: Dexter Wilson Engineering*

## 2. Recycled Water

Pursuant to Section 26 of the Otay Water District Code, Village 2 SPA project is required to utilize recycled water for the irrigation of open space slopes, parks, parkway and median landscaping, and the common areas of schools, commercial, and multi-family residential sites. The potential recycled water use for the Village 2 project was established in the 2006 WCP report. The potential recycled water use areas have not changed substantially since the 2006 report; however, there have been minor changes to the irrigation acreages. Appendix B of the *Otay Ranch Village SPA Amendment Water Conservation Plan, April 2014*, by *Dexter Wilson Engineering* identifies the potential recycled water use areas from the 2006 study and Table I.7 provides the updated estimate for recycled water demand. The total estimated recycled water demand is approximately 0.48 mgd.

### X.6. Existing Facilities

#### A. Potable Water

The Village 2 Comprehensive SPA Project will be served by the Central Service Area of the OWD. This service area is supplied water from Connection Nos. 10 and 12 to the SDCWA aqueduct, which fills 624 Zone reservoirs. Water is distributed within the 624 Zone and pumped to the 711 Zone storage and distribution systems. The existing potable water facilities located in the vicinity of the project are as follows:

- **624 Zone**

The 624 Zone has three existing storage reservoirs. The 624-2 Reservoir is located adjacent to the SDCWA aqueduct between Otay Lakes Road and East H Street, has a

capacity of 8.0 million gallons, and is supplied by Connection No. 10 to the SDCWA aqueduct. The 624-1 and 624-3 Reservoirs are supplied by Connection No. 12, and have a capacity of 12.4 million gallons and 30 million gallons, respectively. The 624-1 Reservoir is located adjacent to the eastern boundary of Otay Ranch Village 5 and is located along EastLake Parkway, just north of Olympic Parkway (*Overview of Water Service for Otay Ranch University Villages 3 North, a Portion of Village 4, 8 East and 10. March 2014, by Dexter Wilson Engineering, Inc.*).

- **711 Zone**

The Central Area Pump Station is currently the only pump in the 711 Zone. It is located at the 624-1 Reservoir site adjacent to the eastern boundary of Otay Ranch Village 5. This station pumps water from the 624 Zone system into the 711 Zone distribution system and into two existing 711 Zone reservoirs located in the EastLake Greens development. The 711 Zone Pump Station currently has five pumps (one standby), each rated for 4,000 gallons per minute (gpm), which results in a firm station capacity of 16,000 gpm.

There are three existing reservoirs in the 711 Zone. Two reservoirs at the same site within the EastLake Greens development, and have a total capacity of 5.0 million gallons. A 16.0 million gallon reservoir, Reservoir 711-3, was constructed north of the Rolling Hills Ranch project. With construction of this reservoir, OWD has sufficient storage within the 711 Zone to meet the demands from projected development in this zone.

The major 711 Zone pipelines in the vicinity of the project area include a 20-inch line in EastLake Parkway, a 16-inch line in Hunte Parkway, and 12-inch lines in La Media Road and Magdalena Avenue (*Overview of Water Service for Otay Ranch University Villages 3 North, a Portion of Village 4, 8 East and 10. March 2014, by Dexter Wilson Engineering, Inc.*).

The backbone of the on-site water infrastructure system for Village 2 has been installed since the initial project approval as analyzed under the 2006 EIR as amended. The Dexter Wilson 2013 memorandum determined that the existing system is adequate to support the Village 2 Comprehensive SPA Project.

## **B. Recycled Water**

The only current source of recycled water for the OWD is the Ralph W. Chapman Water Recycling Facility. This facility currently has a rated capacity of 1.3 mgd with a maximum production of approximately 1.1 mgd and could be expanded to an ultimate capacity of 2.50 mgd. Typically, summer demands exceed the 1.1 mgd plant capacity. The District has the capability to supplement the recycled water supply with the potable 980 Zone water system which has facilities in the area. Based on the OWD Water Resources Master Plan, the South Bay Water Treatment Plant will have an ultimate rated capacity of 15 mgd and the OWD obtained capacity rights to 8.0 mgd of recycled water. This additional source of recycled water will allow the District to meet existing and future recycled water demands. In addition, the OWD has master planned the recycled water system to integrate this source of water into their existing recycled water system.

Two ponds in the District's Recycled Use Area provide storage of the effluent from the Ralph W. Chapman facility. The storage ponds have a high water line of approximately



944 feet and 927 feet, respectively, and provide the storage and supply for the 927 Zone distribution system. The 680 Zone distribution system has been supplied by pressure reducing off the 927 Zone system, but ultimately will be supplied by the South Bay Water Reclamation Plant. Conveyance facilities to convey water from the South Bay Treatment Plant to the use areas, including the 680 Zone use areas, are currently being implemented. A 12-inch 680 Zone pipeline exists in Hunte Parkway along the southern boundary of Village 11, and an 8-inch 927 Zone pipeline exists in EastLake Parkway to Hunte Parkway.

**X.7. Proposed Facilities:**

The major backbone pipelines have already been constructed to the Village 2 project site. The backbone of the on-site water infrastructure system has been installed since the 2006 project approval. The existing on-site water infrastructure system, including recycled water facilities, has been determined to be adequate to support the proposed project. Additionally, conditions that were approved for the original project shall be implemented as part of the Village 2 Comprehensive SPA Project, which include preparation of a final SAMP and requirements related to payment of fees and phasing. See Exhibit 10 and 11 for location of proposed facilities.

**X.8. Financing Water Facilities:**

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

**A. Capacity Fees:**

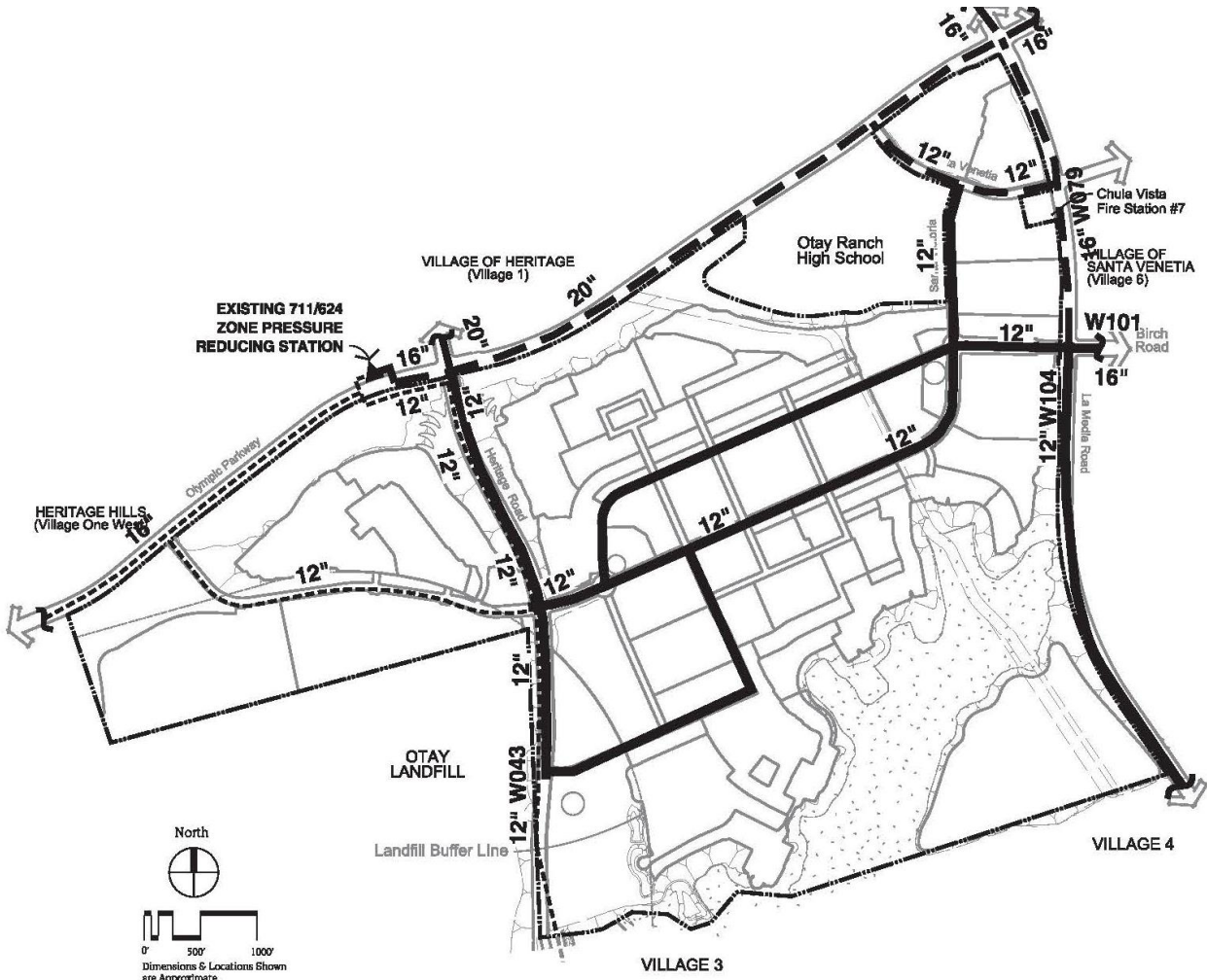
1. OWD's Capital Improvement Program (CIP) provides for the design and construction of facilities by OWD. Through this program, OWD collects an appropriate share of the cost from Developers via the collection of capacity fees from water meter purchases. The capacity fees are collected upon the sale of water meters after building permit issuance according to OWD's fee schedule in effect at the time of sale.
2. CIP projects typically include supply facilities, pumping facilities, operational storage, terminal storage, and transmission mains. Specific CIP projects, if required, are identified in OWD's approved SAMP. The OWD may require amendment to the SAMP for this project.

**B. Exaction:**

The Developer designs and constructs facilities that serve their development only. Upon completion, the facilities are dedicated to OWD. According to OWD's policy No. 26, OWD will provide reimbursement for construction and design costs associated with development of these improvements.

**X.9. Threshold Compliance and Recommendations**

- A. The developer shall provide water and recycled water improvements according the OWD approved SAMP. The construction of potable water and recycled water facilities, based on the approved SAMP, shall be completed prior to the approval of building permits.
- B. The developer shall pay OWD fees in effect at the time water meters are purchased.
- C. The developer shall comply with the mandatory and non-mandatory water conservation measures as detailed in the WCP.



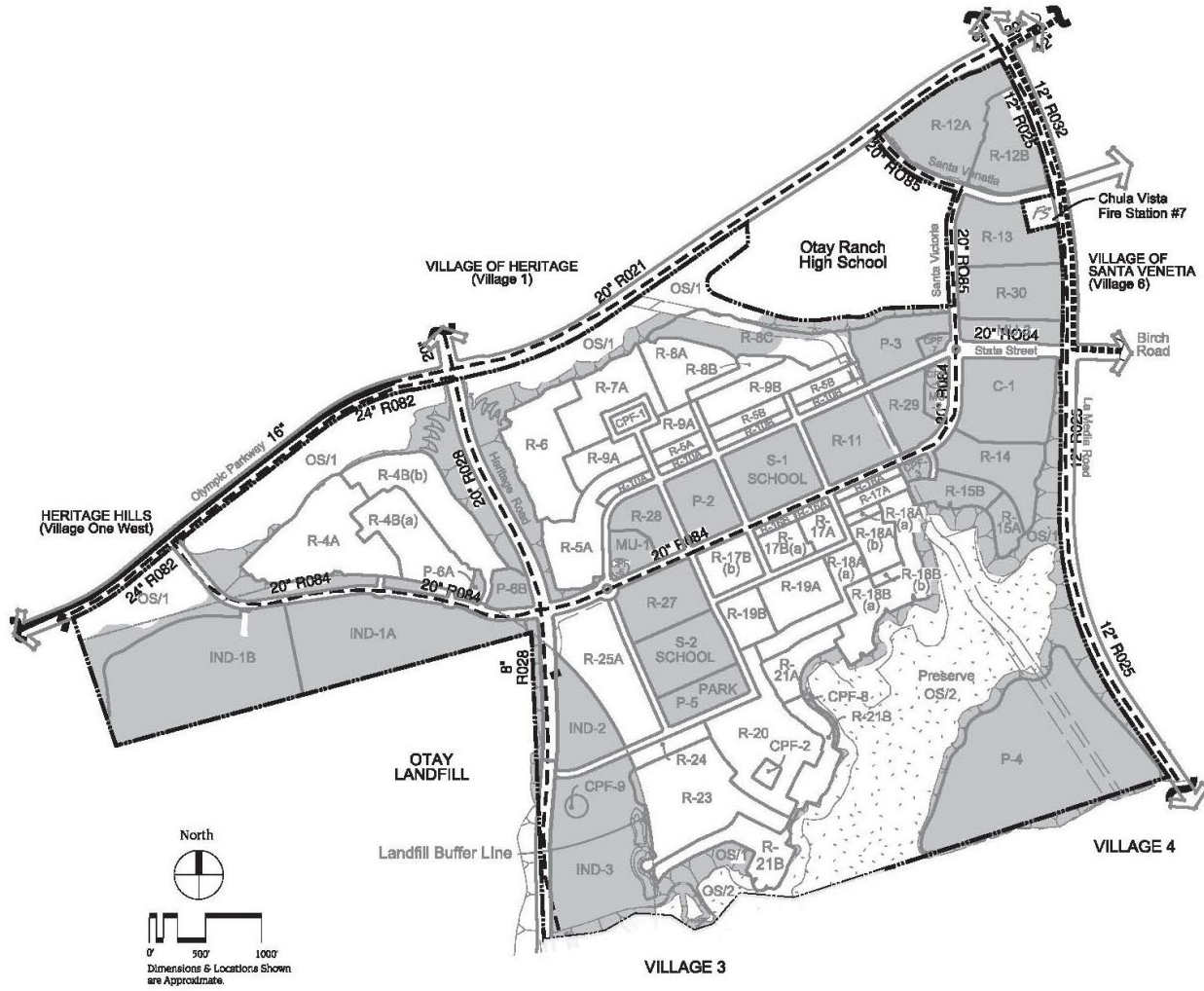
**LEGEND**

- ▲ Existing 711/624 Zone PR Station
- ■ ■ ■ ■ Existing 624 Zone Facilities
- - - - - Proposed 624 Zone Facilities
- — — — Existing 711 Zone Facilities
- — — — Proposed 711 Zone Facilities
- W104** Otay Water District CIP No.

Note: All pipes are recommended as 8-inch unless otherwise noted.

Source: Village 2 Comprehensive SPA Plan

**Proposed Water  
Exhibit 10**



**LEGEND**

- Proposed 944 Zone Facilities
- Existing 680 Zone Facilities
- - - - Proposed 680 Zone Facilities
- R021 Otay Water District CIP Number
- Potential Recycled Water Use Area

Note:  
 In addition to the potential recycled water use areas shown, recycled water will be used for the irrigation of parkway landscaping and common landscaped areas of commercial, industrial and multi-family residential sites. The use of recycled water adjacent to the MSCP preserve is subject to approval by the Chula Vista Environmental Coordinator.

Source: Village 2 Comprehensive SPA Plan

**Proposed Recycled Water Facilities  
 Exhibit 11**

## **XI. SEWER**

### **XI.1. Threshold Standard**

- A. Sewage flows and volumes shall not exceed City Engineering Standards as set forth in the subdivision manual adopted by city council Resolution No. 11175 on February 12, 1983, as may be amended from time to time.
- B. The City will 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, or the city engineering department staff shall gather the necessary data. The information provided to the GMOC shall include the following:
  - 1. Amount of current capacity now used or committed.
  - 2. Ability of affected facilities to absorb forecast growth.
  - 3. Evaluation of funding and site availability for projected new facilities.
  - 4. Other relevant information.

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

### **XI.2. Service Analysis**

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 May 2005 and shall comply with all city engineering standards.

The City of San Diego Metro provides sewer treatment services for the City of Chula Vista in accordance with the terms of a multi-agency agreement (Metro Agreement). The Metro system currently has adequate sewage treatment capacity to serve the region until approximately 2025. In the City of Chula Vista, Development shall not occur without adequate sewer capacity, which is determined by the City Engineer. Building permits will not be issued if the City Engineer has determined that adequate sewer capacity does not exist. All development must comply with the Municipal Code, specifically Municipal Code sections 19.09.010(A) 6 and 13.14.030. Chula Vista oversees the construction, maintenance and the operation of the sewer trunk line system.

The source of information regarding the existing and recommended sewer facilities in this PFFP is from the *Overview of Sewer Service for Otay Ranch Villages 3 North, A Portion of 4, 8 East, and 10 by Dexter Wilson Engineering, Inc. (October, 2013)*. This study is referred to as the Dexter Wilson Sewer Study throughout this PFFP.

The project is planned as a mixed density residential community of 1,740 dwelling units. With supporting uses that include an elementary school, a neighborhood park, community purpose areas, and open space. Residential products will include single family detached and multi-family units.

### **XI.3. Project Processing Requirements**

The SPA Plan and the PFFP are required by the Growth Management Program to address the following issues for Sewer Services:

- A. Identify phased demands for all sewer trunk lines in conformance with the street improvements and in coordination with the construction of water facilities.
- B. Identify location of facilities for onsite and offsite improvements, including reclaimed water facilities, in conformance with the Wilson Study.
- C. Provide cost estimates for all facilities and proposed financing responsibilities.
- D. Identify financing methods.

#### **XI.4. Existing Conditions**

##### **XI.4.1. Transportation**

The City of Chula Vista provides the sewer service for the Otay Ranch Village 2 SPA project. The backbone sewer collection system for the existing and amended project area has been constructed.

- A. Poggi Canyon Basin:** The northern portion of the Village 2 SPA project is within the Poggi Canyon Basin. The existing 18-inch Poggi Canyon Interceptor extends along the Village 2's frontage on Olympic Parkway.
- B. Salt Creek Basin:** Flows from the southern portion of the Village 2 SPA will be conveyed south to the Salt Creek Interceptor. The Salt Creek Interceptor is an existing 36-inch pipe that runs in an east-west direction adjacent to the southern boundary of Village 2 and increases to a 42-inch diameter pipe at this location.

The Wastewater Master Plan, updated in 2013, evaluates the capacity of the City's sewer system and provides a 20 year capital improvement plan (CIP) for rehabilitation and expansion of the collection system and recommended capacity charges. The CIP also includes the recommended system improvements to address existing and projected demand at City build-out. Future City flow estimates are based on the 2005 growth projections, which indicate that the City would eventually exceed its existing share in the City of San Diego Metropolitan Wastewater District (Metro) system. The City of Chula Vista has current treatment capacity rights of 20.864 mgd in the Metro sewer system. The wastewater generation analysis presented in the Wastewater Master Plan is used by the City to establish a basis for acquiring future Metro treatment capacity to allow for implementation of the Chula Vista General Plan, as amended in 2012. The city's sewage capacity was not exceeded in 2012 and the 2013 GMOC Annual Report concluded the city would not exceed its sewage capacity in the next 10 years.

##### **XI.4.2. Wastewater Treatment**

Sewer flows generated by the project were estimated by Dexter Wilson Engineering. Their estimates were based on City Subdivision Manual to calculate the average daily wastewater inflows to the off-site sewer. The total annual average wastewater flows produced from the project are illustrated on Table J.1.

Land Use	Average Flow Factor
Single Family Residential	265 gpd/unit
Multi-Family Residential	199 gpd/unit
Commercial/ Industrial	2,500 gpd/acre
Community Purpose Facilities	2,500 gpd/acre
Elementary Schools	15 gpd/student
Junior & High Schools	20 gpd/student
Parks	500 gpd/acre

*Source: Dexter Wilson Engineering*

On-site and off-site collection, trunk, and interceptor facilities were evaluated in the Dexter Wilson Sewer Study based on this sewage flow. In addition, the city's design criteria were used for the analysis of the existing sewer system as well as for design and sizing of improvements and expansions to the onsite system to accommodate the flows anticipated to be generated by the Village 2 Comprehensive SPA.

The City of Chula Vista's Projected Sewage Flow and Treatment Capacity is shown on Table J.2 considers the projected growth between 2012 and 2017.

Million Gallons per Day (MGD)	FY 10/11	FY 11/12	18-month Projection	5-year Projection	"Build-out" Projection*
<b>Average Flow</b>	16.272	15.935	16.853**	17.948**	26.2*
<b>Capacity</b>	20.864	20.864	20.864	20.864	20.864

\* Buildout Projection based on 2005 Chula Vista Wastewater Master Plan  
 \*\* Growth rate per the "Residential Growth Forecast Years 2012 through 2016"

*Source: GMOC 2013 Annual Report*

The City of Chula Vista currently has capacity rights of 20.864 mgd of flow in the Metro sewer system. Existing average flows in the City are approximately 16 mgd. The estimated year 2030 flows based on the 2005 General Plan were 23.3 mgd. However, densification in the 2010 General Plan Update, the projected year 2030 average flow for the preferred alternative increased the flow to approximately 26.222 mgd. Therefore, requiring the City of Chula Vista to acquire capacity rights for an additional approximate 5.358 mgd to accommodate year 2030 flows. *The Salt Creek Interceptor Technical Sewer Study for the South Otay Ranch, prepared by Atkins (formerly PBS&J) in November 2010* as a supporting document to the 2010 General Plan Amendment EIR addresses the City's current projections regarding the need to acquire additional treatment plant capacity in the future. The total future treatment capacity at full buildout, including the proposed project, is approximately 32.548 mgd, leaving approximately 11.684 mgd that needs to be acquired above the city's current capacity rights. The City of Chula Vista may acquire additional capacity rights in the Metro system through negotiations with the City of San Diego, but there are other alternatives that the City of Chula Vista is evaluating including the construction of a new wastewater treatment plant to meet its future treatment capacity and disposal requirements. Building

permits for new development projects will be issued only if the City Engineer has determined that adequate sewer capacity exists.

#### XI.5. Adequacy Analysis

The Dexter Wilson Sewer Study provides an estimate of projected sewage flows from the Village 2 Comprehensive SPA Plan. Only neighborhoods within Village 2 that included changes from the previously approved project were analyzed as shown in Table J.3.

<b>Table J.3 Village 2 Comprehensive SPA Sewer Flow Projections</b>		
<b>Description</b>	<b>Total Sewage Flow</b>	<b>EDUs</b>
<i>Approved Land Use Plan</i>		
Poggi Canyon	277,865	1,049
Wolf Basin	279,520	1,055
<b>Total</b>	<b>557,385</b>	<b>2,103</b>
<i>Proposed Project</i>		
Poggi Canyon	454,975	1,717
Wolf Basin	360,665	1,361
<i>Other Projects</i>		
Poggi Canyon	71,620	270
Wolf Basin	47,170	178
<b>Total Poggi Canyon (Proposed Project + Other Projects)</b>	<b>526,595</b>	<b>1,987</b>
<b>Total Wolf Basin (Proposed Project + Other Projects)</b>	<b>407,835</b>	<b>1,539</b>

Source: Dexter Wilson Engineering

Table J.4 provides a summary of projected flows. As shown, the development of the proposed project including cumulative projects considered in the sewage flow analysis, would increase Poggi Canyon flows by 248,730 gpd, and Wolf Canyon flows by 128,315 gpd.

<b>Table 4 Sewer Flow Comparison Summary<sup>1</sup></b>				
<b>Description</b>	<b>Poggi Basin</b>		<b>Wolf Basin</b>	
	<b>Avg Flow, gpd</b>	<b>EDUs</b>	<b>Avg Flow, gpd</b>	<b>EDUs</b>
Village 2 Approved Plan	277,865	1,049	279,520	1,055
Village 2 Comprehensive SPA	526,595	1,987	407,835	1,539
<b>Net Increase</b>	<b>248,730</b>	<b>938</b>	<b>128,315</b>	<b>484</b>
JPB Amendment	42,400	160	0	0
EUC <sup>2</sup>	7,420	28 <sup>2</sup>	---	---
<b>Total Increase</b>	<b>298,550</b>	<b>1,126</b>	<b>128,315</b>	<b>484</b>

<sup>1</sup> Only includes neighborhoods in Village 2 with land use changes.

<sup>2</sup> The 2009 PMC Study estimated 429 EDUs from the EUC and the current estimate from Atkins is 457 EDUs.

Source: Dexter Wilson Sewer Study

As previously discussed, the backbone sewer lines for the proposed project site have already been installed. These lines were evaluated under a cumulative project scenario including other projects occurring within the proposed project vicinity by Dexter Wilson Engineering. It was determined that no upgrades to the existing sewer lines anticipated to serve the proposed project would be required. The sewer lines to be installed within the Wolf Canyon Basin have yet to be designed. The design and sizing of these lines would take into account the additional increase in density as proposed under the proposed project.

**A. Onsite Sewer System**

That portion of Village 2 within the Poggi Canyon Basin conveys its sewer to the Poggi Canyon Interceptor at Heritage Road and at Santa Venetia Street. The backbone sewer lines serving Village 2 have already been installed. The Dexter Wilson Sewer Study contains a hydraulic analysis of these sewer lines using the as-built conditions. The lines were evaluated under the cumulative project scenario. As shown, all sewer lines will flow at a d/D of 0.51 or less during the cumulative project condition. Dexter Wilson concluded that no upgrades to the Village 2 onsite sewer system were necessary based on the cumulative project scenario. The sewer lines within the Wolf Canyon Basin have not yet been designed. The design and sizing of these lines will need to take into account the additional 484 EDUs as a result of the Village 2 Comprehensive SPA Plan.

**B. Poggi Canyon Interceptor**

The Dexter Wilson Sewer Study evaluated the available capacity in the Poggi Canyon Interceptor under cumulative project conditions. Table J.5 summarizes the impact of adding 1,126 EDUs as a result of the cumulative project would have on the permitted and the remaining committed capacity. Dexter Wilson Sewer Study Exhibits identifies the reach locations and indicates where Village 2 connects to the Poggi Interceptor. As shown in Table J.5, the two reaches already identified for future replacement are shown as being over capacity and one additional reach is shown to be slightly over capacity. This additional reach is P345 to P363 which is an 18” pipe that is shown to be 99 EDUs over capacity. Upon approval of the Village 2 Comprehensive SPA Plan, Dexter Wilson Engineering recommends the Poggi Basin Gravity Sewer Development Impact Fee be updated to reflect the additional units and additional improvement as identified in Table J.5.

**C. Salt Creek Interceptor**

The available capacity in the Salt Creek Interceptor was analyzed under baseline and cumulative conditions in a November 2010 report prepared by PBS&J. This analysis was updated by Atkins in a memorandum dated February 28, 2014 to include additional flows resulting from the Village 2 SPA Amendment and land use changes in Planning Area 12. The updated analysis is provided as Appendix C for reference and concludes that these additional flows do not result in capacity deficiencies in the Salt Creek Interceptor.

**XI.6. Recommended Sewerage Facilities**

The Dexter Wilson Sewer Study concludes that the proposed densification within the cumulative project will exceed the units foreseen in the 2009 Poggi DIF update. However, the limits of the required DIF improvements remain the same with the exception of pipe segment P345 to P365, which is slightly over capacity at the revised build out conditions. The current cost related to the DIF improvements has been identified in the Poggi DIF.



**Table J.5  
Poggi Canyon Interceptor Summary  
Cumulative Project Scenario**

Reach	Capacity at d/D=0.85 EDUs	PMC Study Permitted EDUs		PMC Study <sup>1</sup> Committed EDU's		Cumulative Project Amendment		
		Current	Remaining Capacity	Current	Remaining Capacity	Additional EDUs	Net EDUs Permitted Remaining	Net Committed Remaining EDUs
P102 to P140	18,367	11,602	6,765	16,204	2,163	1,126	5,639	1,037
P140 to P175R	22,192	11,602	10,591	16,204	5,988	1,126	9,465	4,862
P175R to P195	35,898	11,602	24,296	16,204	19,694	1,126	23,170	18,568
P195 to P230	18,367	10,726	7,640	15,328	3,039	1,126	6,514	1,913
P230 to P240	16,427	10,053	6,374	14,655	1,772	1,126	5,248	646
P240 to P253R	16,427	10,053	6,374	14,655	1,772	1,126	5,248	646
R253R to P270	12,175	9,763	2,412	14,365	(2,190)	1,126	1,286	(3,316)
P270 to P305	12,175	8,587	3,589	13,125	(950)	1,126	2,463	(2,076)
P305 to P310	38,503	8,587	29,916	12,609	25,894	1,126	28,790	24,768
P310 to P345	17,047	8,447	8,600	12,469	4,578	1,126	7,474	3,452
P345 to P365	13,339	8,289	5,049	12,312	1,027	1,126	3,923	(99)
P365 to P405	17,305	8,289	9,016	11,590	5,715	1,126	7,890	4,589
P405 to P410	13,339	7,770	5,569	11,070	2,269	1,126	4,443	1,143
u/s P410 to SR125	13,339	6,605	6,733	9,906	3,433	1,126	5,607	2,307

<sup>1</sup> Committed EDUs do not include interim 464 EDUs from Village 7, 281 EDUs from EUC

*Source: Dexter Wilson Sewer Study*

program and any amendment project will be required to update the Poggi DIF study as a condition of approval for the project. The Dexter Wilson Sewer Study verifies that the onsite sewer system for Village 2 is adequate to serve the proposed project. Although no additional improvements to the Salt Creek Interceptor are proposed, the Dexter Wilson Sewer Study recommends the Salt Creek DIF Study be updated as a condition of approval for the Village 2 Comprehensive SPA Plan project to reflect the additional proposed units from the project.

<b>Table J.6 Village 2 Comprehensive SPA Projected Sewage Flow Summary</b>			
<b>Land Use</b>	<b>Quantity</b>	<b>Unit Flow</b>	<b>Total Flow, gpd</b>
<b>Poggi Canyon</b>			
Single Family	827 units	265 gpd/unit	219,155
Multi-Family	2,542 units	198.75 gpd/unit	505,222
Schools	10.3 ac	2,500 gpd/ac	25,750
Commercial/Office	20.0 ac	2,500 gpd/ac	50,000
Industrial	59.6 ac	2,500 gpd/ac	149,000
CPF	11.2 ac	2,500 ggpd/ac	28,000
Parks	18.9 ac	500 gpd/ac	9,450
<b>Subtotal</b>	<b>3,369 units</b>		<b>986,577</b>
<b>Wolf Canyon</b>			
Single Family	517 units	265 gpd/unit	137,005
Multi-Family	659 units	198.75 gpd/unit	130,976
Schools	9.5 ac	2,500 gpd/ac	23,750
Industrial	36.5 ac	2,500 gpd/ac	91,250
CPF	1.4 ac	2,500 gpd/ac	3,500
Parks	49.7 ac	500 gpd/ac	24,850
<b>Subtotal</b>	<b>1,176 units</b>		<b>411,331</b>
<b>Total</b>	<b>4,545 units</b>		<b>1,397,908</b>

*Source: Dexter Wilson Engineering*

**XI.7. Facility Phasing**

One primary phase of development is proposed. The existing 18-inch Poggi Canyon Interceptor extends along the length of Village 2's frontage on Olympic Parkway. Backbone sewer lines connecting the R-7A, R-9A, R-28 and R-29 neighborhoods to the Interceptor have already been installed. The development of individual building sites will commence as the market dictates. Build-out of all building sites may occur over a several year period. Sewer laterals to serve the Project are the responsibility of the developer.

**XI.8. Financing Sewer Facilities**

To fund the necessary future improvements to the Poggi Canyon Interceptor, development impact fees have been established by the City of Chula Vista. Adoption of City of Chula Vista Ordinance Number 2716, as amended, established a fee to be paid for future development within the Poggi Canyon Basin that connects into the existing

system. The Chula Vista City Council has authorized the collection of a fee to aid in the cost of processing sewerage generated in the city. The current fee is \$265/EDU. Single Family Dwellings are considered 1.00 EDU and Multi-Family Units (apartments and condominiums) are considered .75 EDU. The Sewer Capacity Fee is subject to periodic adjustments. Table J.9 summarizes the fees to be paid by the Project. These fees will be collected before building permits are issued.

<b>Table J.7</b> <b>City of Chula Vista</b> <b>Poggi Canyon Basin Impact Fee</b>		
<b>Land Use</b>	<b>EDU Factor</b>	<b>Fee</b>
Single Family-Residential	1.0 EDU/unit	\$265/unit
Multi-Family Residential	0.75 EDU/unit	\$198.75/unit
Commercial/Industrial	9.43 EDU/acre	\$2,498.95/acre
CPF	9.43 EDU/acre	\$2,498.95/acre
Elementary School	0.06 EDU/student	\$15.90/student
Parks	1.89 EDU/acre	\$500.85/acre

The *Salt Creek Basin Study* by *Wilson Engineering, November 1994* established a fee to fund future improvements to the Salt Creek Interceptor System. This fee is required to be paid by all future developments within the Salt Creek Drainage Basin to fund improvements required to serve ultimate development within the drainage basin. City of Chula Vista Ordinance Number 2617 established the fee to be paid for future development within the Salt Creek Basin that connects into the existing system. Table J.8 summarizes the current fees to be paid by each land use type. Similar to the Poggi Canyon fees, they are collected before building permits are issued.

<b>Table J.8</b> <b>City of Chula Vista</b> <b>Wolf Canyon/Salt Creek Basin Impact Fee</b>		
<b>Land Use</b>	<b>EDU Factor</b>	<b>Fee \$</b>
Single Family-Residential	1.0 EDU/unit	\$1,330/unit
Multi-Family Residential	0.75 EDU/unit	\$997.5/unit
Commercial/Industrial	9.43 EDU/acre	\$12,541.9/acre
CPF	9.43 EDU/acre	\$12,541.9/acre
Elementary School	0.06 EDU/student	\$79.8/student
Parks	1.89 EDU/acre	\$2,513.7/acre

The project estimated Poggi Canyon and Wolf Canyon/Salt Creek Basin Fee for the Village 2 Comprehensive SPA Plan is estimated \$ 805,197 (see Table J.9). The estimated fee may change depending upon the final number of dwelling units, changes in acreages and/or fee revisions by the City Council.

<b>Table J.9</b>										
<b>Village 2 Comprehensive SPA Plan</b>										
<b>Poggi Canyon &amp; Wolf Canyon/Salt Creek Basin Project Impact Fees</b>										
Poggi Canyon Basin Fees										
Residential				Com'l/Ind./CPF		School		Park		Total
SF Units	\$265/SF Unit	MF Units	\$198.5/MF Unit	Com'l/Ind/CPF	\$2,498.95/Acre	Elem School	\$15.90/Student	Park	\$500.85/acre	
0	\$0	1075	\$213,386	13.3	\$33,223	0	\$0	8.8	\$4,408	\$251,017
Wolf Canyon/Salt Creek Basin Fees										
SF Units	\$1,330/SF Unit	MF Units	\$997.50/MF Unit	Com'l/Ind/CPF	\$2,650.00/Acre	Elem School	\$79.80/Student	Park	\$2,513.70/acre	
0	\$0	487	\$485,783	0	\$0	750	\$59,850	3.4	\$8,547	\$554,180
<b>Totals</b>										
<b>0</b>	<b>\$0</b>	<b>1562</b>	<b>\$699,169</b>		<b>\$33,223</b>		<b>\$59,850</b>	<b>12.2</b>	<b>\$12,955</b>	<b>\$805,197</b>

In addition to the Poggi Canyon and the Wolf Canyon/Salt Creek Impact Fee, new development is subject to the City of Chula Vista's Sewerage Participate Fee. The Sewerage Participate Fee was established to aid in the cost of processing sewerage generated in the City. The current fee is \$3,478 per EDU. Table J.10 estimates the current Sewerage Participation Fee for the Village 2 Comprehensive SPA at \$5,482,719.

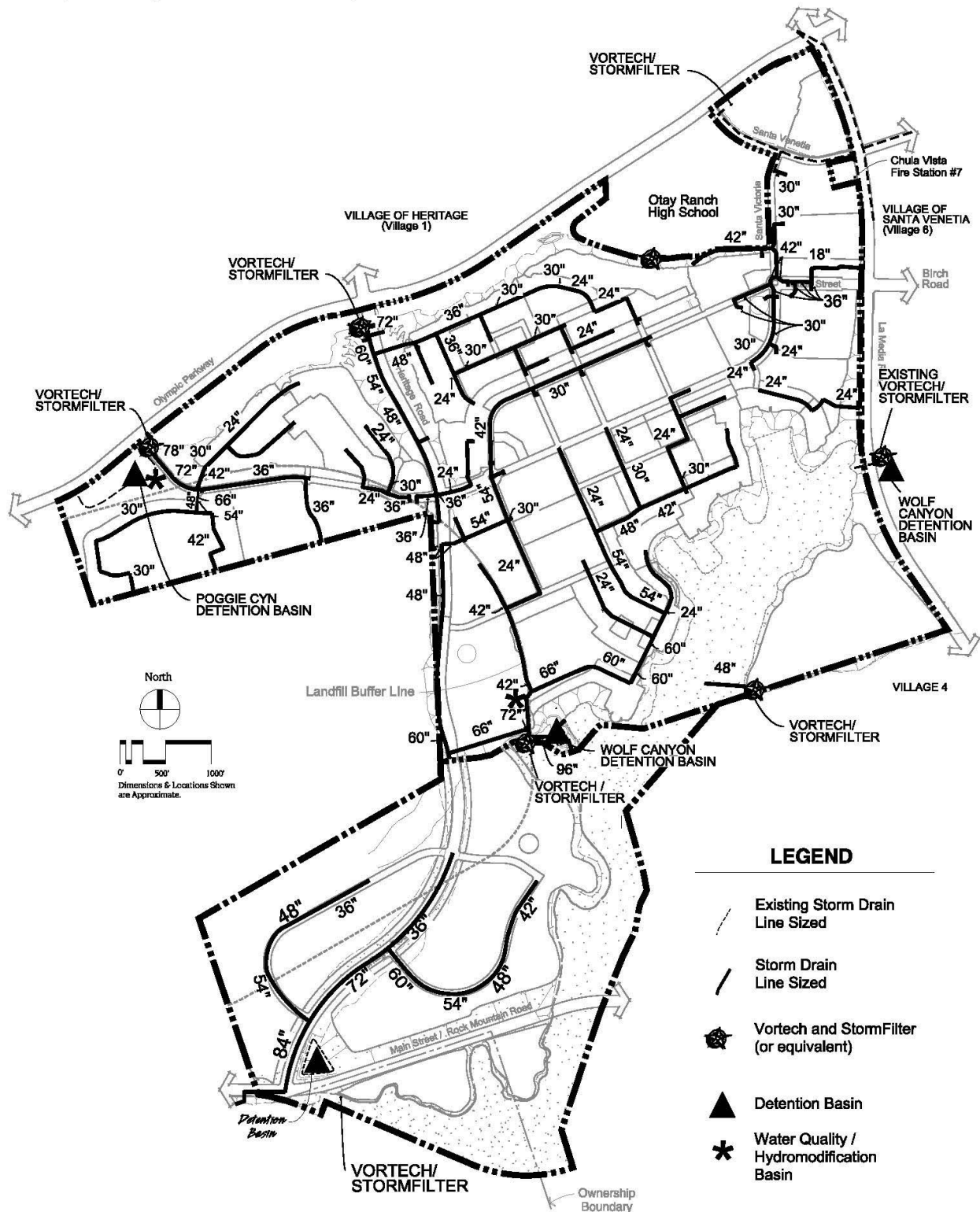
<b>Table J.10</b>			
<b>Village 2 Comprehensive SPA Plan</b>			
<b>Sewerage Participation Fee</b>			
Land Use	Additional EDUs	Fee	Estimated Fee
Village 2 Comprehensive SPA	1576.4 <sup>1</sup>	\$3,478 per EDU	\$5,482,719
<sup>1</sup> Dexter Wilson Sewer Study			

These tables are only an estimate of the potential fees that may be required for the Village 2 Comprehensive SPA Plan. Actual fees will be calculated at the time building permits are issued and may be different. Tables do not include the current Sewer Administration Fee, which is currently \$45/Building Connection.

## **XI.9. Threshold Compliance and Requirements**

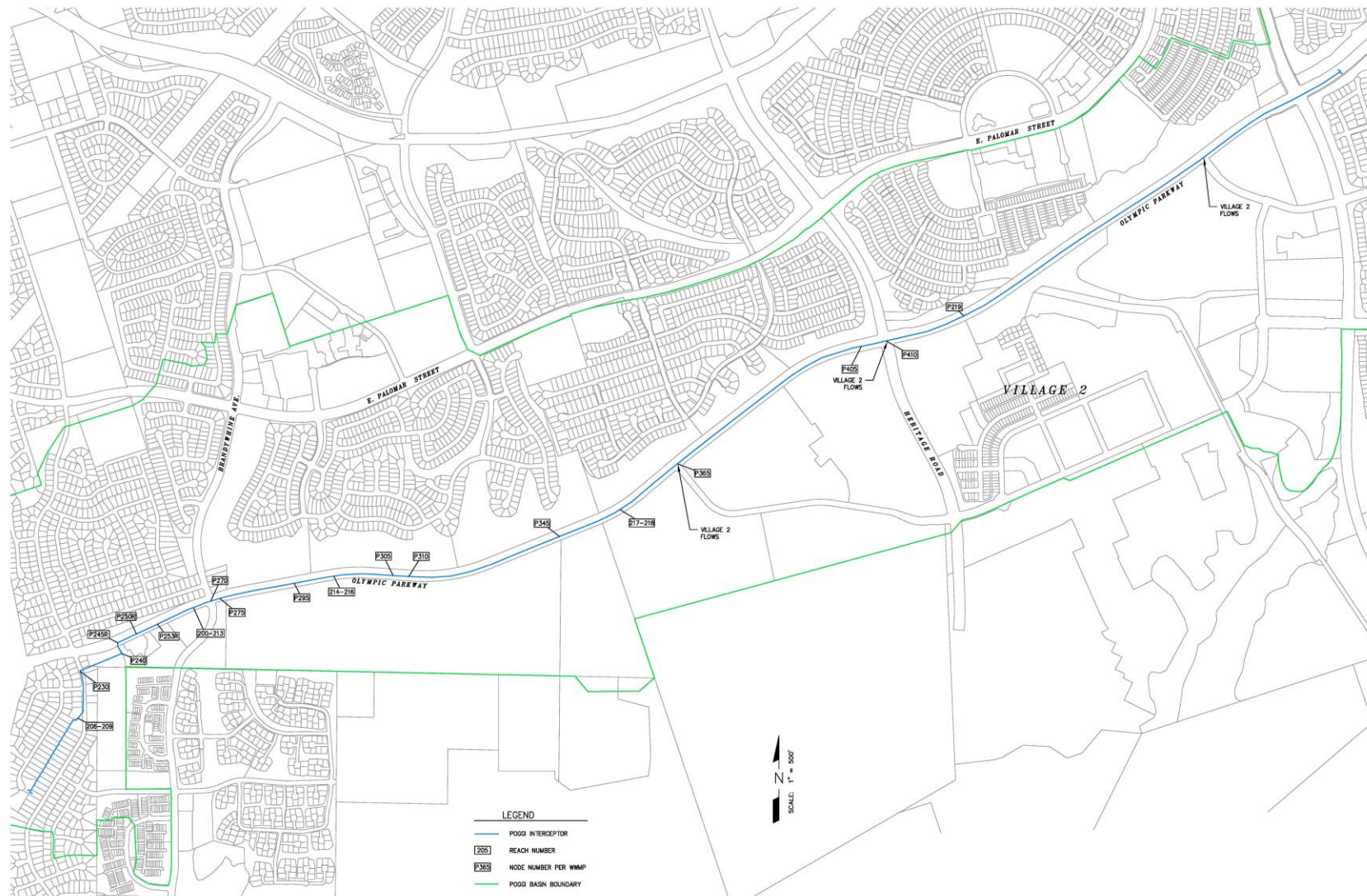
- A. According to the 2013 GMOC Annual Report, the City of Chula Vista will not exceed its sewage capacity within the next 10 years.
- B. With a limited amount of treatment capacity remaining, the City is working on a variety of alternatives that would provide the additional capacity needed to serve all future development within the City. However, building permits only will be issued if the City Engineer determines that adequate sewer capacity exists.
- C. Facilities to accommodate sewer flows have been identified in the Dexter Wilson Sewer Study. The construction of new sewer lines must be phased in before the construction of streets.
- D. Adding an additional 1576.4 EDU's will exceed the units foreseen in the *Poggi Basin Gravity Sewer Development Impact Fee Update, April 2009, by PMC*. However, the limits of the required DIF improvements remain the same with the exception of pipe segment P345 to P365 which is shown to be slightly over capacity at revised build out conditions. The current cost related to the DIF improvements has been identified in the Poggi DIF program and any amendment project will be required to update the Poggi DIF study as a condition of approval for the project. The Dexter Wilson Sewer Study verifies that the onsite sewer system for Village 2 is adequate to serve the proposed project. Although no additional improvements to the Salt Creek Interceptor are proposed as a result of the Dexter Wilson Sewer Study, the Salt Creek DIF Study will need to be updated as a condition of approval for this project to reflect the additional proposed units from the project.
- E. Requirements:
  - 1. Salt Creek Development Impact Fee. Prior to issuance of each building permit, the applicant or designee shall pay the Salt Creek Development Impact Fee at the rate in effect at the time of building permit issuance and corresponding to the sewer basin that the building will permanently sewer to, unless stated otherwise in a development agreement that has been approved by the City Council.
  - 2. Poggi Canyon Development Impact Fee: Prior to issuance of each building permit, the applicant or designee shall pay the Poggi Canyon Development Impact Fee at the rate in effect at the time of building permit issuance and corresponding to the sewer basin that the building will permanently sewer to, unless stated otherwise in a development agreement that has been approved by the City Council.
  - 3. Density Transfer Technical Report. Prior to design review approval in accordance with the Intensity Transfer provision in the Village 2 Comprehensive SPA Plan, the applicant or designee shall provide an update to the *Overview of Sewer Service for Otay Ranch University Village Two, 2014, Dexter Wilson* with each proposed project requesting an intensity transfer. The technical study shall demonstrate to the satisfaction of the City Engineer that adequate on-site wastewater infrastructure will be available to support the transfer. The transfer of residential density shall be limited by the ability of the on-site sewerage facilities to accommodate flows. Building permits would be issued only if the City Engineer has determined that adequate sewer capacity exists.

4. Prior to each final map developer shall either demonstrate that Poggi Sewer has adequate capacity or upsize the inadequate segment, all to the satisfaction of the Director of Development Services.
5. Prior to the first final map, Developer shall fund the updates of the Poggi Canyon and Salt Creek Sewer DIFs to include the projects proposed additional units. Further, prior to the first final map developer shall agree not to protest the update of the Poggi and Salt Creek Sewer DIF.
6. Prior to the issuance of the first building permit related to any project uses served by the Poggi Canyon Sewer, and to the satisfaction of the City Engineer, the applicant shall:
  - a. Design all gravity sewers to convey peak wet weather flow. For pipes with diameter of 12 inches and smaller, the sewers will be designed to convey this flow when flowing half full. For pipes of diameter larger than 12 inches, the sewers will be designed to convey peak wet weather flow when flowing at three-fourths of the pipe depth. All new sewers will be designed to maintain a minimum velocity of two feet per second (fps) at design capacity to prevent the deposition of solids.
  - b. Underwrite the cost of all studies and reports required to support the addition of sewer flows to existing lines.
  - c. Assume the capital cost of all sewer lines and connections identified in the Dexter Wilson Sewer Study.
  - d. Pay all current Sewerage Participation Fees, as required by the City of Chula Vista.
  - e. Comply with Section 3-303 of the City of Chula Vista Subdivision Manual.
  - f. Construct off-site connections as required by the City Engineer.



Source: Otay Ranch Village 2 Comprehensive SPA Plan July 2014

## On-site Sewer Plan Exhibit 12



Source: Dexter Wilson Sewer Study

## Poggi Interceptor Map Exhibit 13



## **XII. DRAINAGE**

### **XII.1 Threshold Standard**

- A. Storm water flows and volumes shall not exceed City Engineering Standards as set forth in the subdivision manual adopted by City Council Resolution No. 11175 on February 23, 1983, as may be amended from time to time.
- B. 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 above.

### **XII.2 Service Analysis**

The City of Chula Vista 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 is required to 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. *The City of Chula Vista Subdivision Manual; Engineering Department and Land Development; section 3, March 2012*, provides design criteria to comply with city design standards. In addition, *The City of Chula Vista Public Facilities Plan Flood Control Summary Report, March 1989 (Phase II)* provides details for the city planned drainage facilities.

The Village 2 Comprehensive SPA project is under the jurisdiction of the San Diego Regional Water Quality Control Board (SDRWQCB) and is also subject to the National Pollutant Discharge Elimination System (NPDES) requirements both during and after construction. NPDES requirements stem from the Federal Clean Water Act and are enforced either by the State Water Resources Control Board (SWRCB) or the SDRWQCB. The Project is also subject to the current Hydromodification Management Plan (HMP) standards.

The Villages 2, 3 and Portion of 4 SPA Plan drainage improvements were identified in the *Master Drainage Study, for Otay Ranch Villages 2, 3 & 4, dated July 14, 2005, by Hunsaker & Associates*. Stormwater runoff pollution prevention and control measures for were identified in the *Preliminary Water Quality Technical Report for Otay Ranch Villages 2, 3 and 4, dated September 14, 2004, by Hunsaker & Associates*. The Hunsaker studies assessed the existing and developed condition drainage conditions for the entire Villages 2, 3 and portion of 4 areas.

Three Preliminary Drainage Studies have been prepared to assess the pre-developed and the post developed condition peak runoff rates from the proposed Village 2 Comprehensive SPA Project. The three studies are entitled:

- *TM Drainage Study for Otay Ranch Village 2 North, November 13, 2013 by Hunsaker & Associates.*
- *TM Drainage Study for Otay Ranch Village 2 West, November 13, 2013 by Hunsaker & Associates.*
- *TM Drainage Study for Otay Ranch Village 2 South & R-15c, November 13, 2013 by Hunsaker & Associates.*

Depending upon the area within the project, the Preliminary Drainage Studies will be referred to as either the Hunsaker Drainage Study North or the Hunsaker Drainage Study West or the

Hunsaker Drainage Study South throughout this PFFP.

The treatment of the runoff from the Village 2 Comprehensive SPA Project is addressed in the Water Quality Technical Report (WQTR). For the Village 2 Comprehensive SPA Project there are three reports:

- *Water Quality Technical Report for Otay Ranch Village 2 North Tentative Map, dated November 13, 2013, by Hunsaker & Associates.*
- *Water Quality Technical Report for Otay Ranch Village 2 West Tentative Map, dated November 13, 2013, by Hunsaker & Associates.*
- *Water Quality Technical Report for Otay Ranch Village 2 South & R-15c Tentative Map, dated November 13, 2013, by Hunsaker & Associates.*

Depending upon the area within the project, the WQTR's will be referred to as the Hunsaker WQTR North, or Hunsaker WQTR West or Hunsaker WQTR South throughout this PFFP. The proposed design will utilize on-site Low Impact Development (LID), Best Management Practices (BMPs) and Bioretention Integrated Management Practices (IMP's) Treatment Controls to treat the 85<sup>th</sup> percentile flow from the development.

### **XII.3 Project Processing Requirements**

The SPA Plan and the PFFP are required to address the following issues for drainage issues:

1. Identify phased demands.
2. Identify locations of facilities for onsite and offsite improvements.
3. Provide cost estimates.
4. Identify financing methods.

### **XII.4 Existing Conditions**

The Village 2 Comprehensive SPA Project area consists of rolling hills with arroyos draining to canyons that flow west and south away from the Otay Reservoir basin. The natural drainage basin for Village 2 is a combination of watersheds that drain directly into Poggi Canyon from the north and west portions of Village 2 and Wolf Canyon from the south portions of Village 2. The current Village 2 SPA Plan was approved in 2006. Since that time, development has begun on portions of Village 2. The topography of the northern portions of Village 2 has been mass graded into pads, developed residential units, and roadways. Runoff from the developing northern portions of Village 2 drains into Poggi Canyon. Drainage from both Poggi Canyon and Wolf Canyon ultimately flows into the Otay River, which is south of Village 2.

#### **XII.4.1. Poggi Canyon**

The constructed Poggi Canyon Creek channel runs along the north side of Olympic Parkway and then crosses under Olympic Parkway at the southern boundary of Village 1, near the northwest corner of Otay Ranch High School, where it runs along the northern boundary of Village 2. The runoff from the existing development located to the north and east flows in a westerly direction via the Poggi Canyon Creek channel on the north side of Olympic Parkway through Otay Ranch Village 1. Flows from the northeastern portion of Village 2 (south of Olympic Parkway) are conveyed to this channel via a 48-inch RCP. Runoff from the Otay Ranch High School site flows together with the runoff

in the Poggi Canyon Creek at the downstream headwall south of Olympic Parkway. Between the Otay Ranch High School site and Heritage Road, this runoff combines with the runoff from the undeveloped Village 2 site from the south and conveyed via an existing trapezoidal channel. The combined runoff from Village 1 and the undeveloped Village 2 flows under Santa Victoria Road and into the existing Poggi Canyon Regional Detention Facility. This detention basin is located on the west side of Village 2 adjacent to Olympic Parkway. The Poggi Canyon Creek contains several drop structures and energy dissipater devices along its path, which are designed to keep volumes under control and reduce erosion. The existing detention facility was designed to mitigate the 100-year developed condition peak flow rate in Poggi Canyon below the predeveloped 100-year peak flow. According to the Master Drainage Study for Poggi Canyon Creek, October 14, 1999, the pre-developed 100-year flow at the detention basin location was determined to be roughly 1,300 cubic feet per second (cfs).

#### **XII.4.2. Wolf Canyon**

Rolling hills and heavily grazed land characterizes the Wolf Canyon watershed. The Wolf Canyon area east of the proposed extension of La Media (south of Birch Parkway) will consist of the Village 7 development, which is currently under construction, and the proposed Eastern Urban Center. Wolf Canyon's main drainage course forms the southern and eastern boundary of Village 2 and the northern boundary for the Village 4 park site. A large tributary confluences with Wolf Canyon Creek near the downstream limit of Village 2. A significant portion of the Village 2 property drains to this tributary while the remainder drains directly to Wolf Canyon Creek. After the confluence, the creek flows in a southerly direction just east of the Village 3 property where it discharges runoff to the Otay River south of the Village 2 Comprehensive SPA Project site.

#### **XII.4.3. Tentative Maps**

The Developer of the Village 2 Comprehensive SPA Project has submitted four Tentative Maps (TM) to be concurrently processed with the SPA Plan Amendment. These four TM's are referred to as the Village 2 North TM, Village 2 West TM, Village 2 South TM and the R-15c TM. The following discussion presents a summary of the pre-developed existing conditions of each TM or sub-area of the Village 2 Comprehensive SPA Plan:

##### **A. Village 2 North TM:**

According to the Hunsaker Drainage Study, the Village 2 North TM site is composed of two general watersheds. The watershed on the west side of the site is currently rough graded and slopes towards the west at a flat grade. Hunsaker used the *Rough Grading Hydrology Study for Otay Ranch Village 2 North, March 2, 2007, Hunsaker & Associates* for the western watershed values. For details see the Hunsaker Drainage Study.

The eastern watershed of the Village 2 North TM is currently comprised of open space natural steep slopes and a rough graded future park site pad. The park pad slopes towards the north and contains a sediment basin, riser, and outlet storm drain. The storm drain from the park pad connects to an existing system which extends both upstream and downstream of the park. The hydrologic analysis for this watershed is included in the Hunsaker Drainage Study North. The runoff from this watershed confluences with Poggi Canyon flows.

Table K.1 below summarizes the 50-year pre-development peak flows to each of the delineated watersheds. Per the City of Chula Vista Subdivision Manual, runoff coefficients of 0.30 and 0.60 were assumed for the park pad and steep vegetated slopes, respectively.

<b>Table K.1</b> <b>Village 2 North TM</b> <b>Summary of Pre-Developed Flows to Poggi Channel</b>		
<b>Watershed Name</b>	<b>Drainage Area (ac)</b>	<b>50-Year Peak Flow (cfs)</b>
Western	67.32	177.55
Eastern	83.26	166.35
<b>Total</b>	<b>150.58</b>	<b>343.90</b>

*Source: Hunsaker Drainage Study*

**B. Village 2 West TM:**

The existing Village 2 West TM project area topography consists of rolling hills covered mainly by native brush and incised with canyons that partition the site into the various watersheds. The southern watershed boundary is defined by the Otay Landfill grading. The Hunsaker Drainage Study West for this site only included the area immediately west of the Heritage Road and the future Santa Victoria Road. The additional watersheds shown on the Hunsaker Drainage Study West exhibits were included for informational and comparison purposes between the existing and ultimate development of Village 2 West. The natural drainage channels located throughout Village 2 West drain to the northwest and the existing Poggi Canyon Detention Basin. The detention basin was sized to accommodate runoff from this project as well as the other portions of the Village 2, which drain towards Poggi Canyon. Runoff from the detention basin merges with the Otay River downstream. The Otay River ultimately empties into San Diego Bay.

Table K.2 below summarizes the 100-year pre-development peak flows to each of the delineated watersheds. Runoff coefficients for this site were based on the City of Chula Vista Subdivision Manual. Supporting calculations for the data presented in Table K.2 are located in the Hunsaker Drainage Study.

<b>Table K.2</b> <b>Village 2 West TM</b> <b>Summary of Pre-Developed Flows to the Otay River</b>		
<b>Watershed Name</b>	<b>Drainage Area (ac)</b>	<b>100-Year Peak Flow (cfs)</b>
West	31.46	66.07
West-Central	2.63	7.69
East-Central	1.04	3.22
East	109.19	187.67
<b>Total</b>	<b>144.32</b>	<b>264.65</b>

*Source: Hunsaker Drainage Study*

**C. Village 2 South & R-15c TM:**

The northerly portion of the Village 2 South TM includes approximately 46 acres from Village 2 North and will convey its runoff through Village 2 South. The topography within the North Portion is varied throughout and consisting of steep slopes, hilly areas, mass graded pads, and areas for stormwater detention. The North Portion runoff drains southward and empties into Wolf Canyon. Wolf Canyon merges with the Otay River approximately one mile downstream of the developed North Portion.

The topography for the existing Heritage Road Portion consists of farmland, rolling hills, native vegetation, and incised canyons that partition the area into the various watersheds. The northern watershed boundary is defined by the grading which has occurred for the Otay Landfill. The westernmost watershed boundary has been set at the limits of the existing commercial businesses mostly consisting of vehicle junkyards and parts stores. These watersheds all drain into the Otay River. The defined 'Heritage Road Portion' watershed has its downstream outlet point located approximately one-half mile downstream of the Wolf Canyon confluence into the Otay River. The Otay River flows from east to west and ultimately empties into the San Diego Bay.

Table K.3 on the following sheet summarizes the 100-year pre-development peak flows to each of the delineated watersheds. Hunsaker & Associates used runoff coefficients pursuant to the City of Chula Vista Subdivision Manual. Supporting calculations for the data presented in Table K.3 are located in Chapter 3 of the Hunsaker Drainage Study South. Further, the corresponding hydrology maps are located in the Hunsaker Drainage Study South, Chapter 7.

<b>Table K.3 Village 2 South &amp; R-15c TM Summary of Pre-Developed Flows</b>				
<b>Hunsaker Exhibit</b>	<b>Node Number on Hunsaker Exhibit</b>	<b>Discharge Location</b>	<b>Drainage Area (ac)</b>	<b>100-Year Peak Flow (cfs)</b>
1.1 North Portion	138	Wolf Canyon	251	454
1.2 Heritage Road Portion	105	Otay River	47	64
1.2 Heritage Road Portion	214	Otay River	95	145
1.2 Heritage Road Portion	407	Otay River	118	141
<b>Total</b>			<b>511</b>	<b>804</b>

*Source: Hunsaker Drainage Study*

## XII.5 Proposed Facilities

### XII.5.1 Storm Drainage

#### A. Village 2 North TM

The Village 2 North TM will consist of multi-family units, open spaces, a park, and two CPF sites. The TM modifies the existing condition by extending the park site west; adding a CPF site within the eastern portion of the park area; the slope area along the northern portion has been moved north; and the proposed residential areas and streets within Neighborhoods R-8b and R-9b have been increased. In addition, Neighborhood R-8C was added along the northeastern slope.

As with the Pre-developed analysis discussed previously, the Developed Condition was separated into two watersheds by Hunsaker. For comparison purposes, the Hunsaker Drainage Study North uses downstream points that were made to coincide for both the pre and post condition models (see Hunsaker Drainage Study North for analysis details).

The downstream end of the western watershed ties into an existing storm drain, which connects to the Heritage Road storm drain. This storm drain outlets into Poggi Canyon at the southwest corner of the Heritage Road-Olympic Parkway intersection. The water quality treatment of runoff from the western watershed is being accomplished via a vortechnic-stormfilter treatment units located upstream of the outlet into Poggi Canyon at Heritage Road. The newly permitted areas of the Village 2 North TM shall include additional water quality measures (See Hunsaker WQTR West for additional information).

The downstream end of the eastern watershed outlets upstream of its confluence with Poggi Canyon northwest of the Otay Ranch High School. A headwall and rip rap has been proposed by Hunsaker to reduce velocities at the outlet. A vortechnic- stormfilter treatment unit has been previously approved, per the Otay Ranch Village 2 Phase 1 Grading Plans, to treat the developed areas upstream of the outlet excluding the flows from Neighborhood R-8C. Water quality treatment for Neighborhood R-8C will be accomplished with a new bioretention basin located at the bottom of the constructed slope south of Poggi Canyon.

Watershed Name	Pre-Developed		Post-Developed		Difference	
	Drainage Area (ac)	50-Year Peak Flow (cfs)	Drainage Area (ac)	50-Year Peak Flow (cfs)	Drainage Area (ac)	50-Year Peak Flow (cfs)
Western	67.32*	177.55	59.38	140.12	7.94	37.43
Eastern	83.26	166.35	84.33	185.52	-1.07	19.17
<b>Total</b>	<b>150.58*</b>	<b>343.90</b>	<b>143.71</b>	<b>325.64</b>	<b>-6.87</b>	<b>-18.26</b>

\*-Includes double-counted acreage within the eastern portion of the western watershed.

*Source: Hunsaker Drainage Study*

Table K.4 summarizes the cumulative effects of the Village 2 North TM development. The table shows a reduction of area and anticipated runoff when both watersheds are summed up. According to the Hunsaker Drainage Study North, the discrepancy in acreage was attributed to the values used for the existing condition hydrology scenario for the western watershed. The scenario and model used was a conservative ‘Ultimate’ build out design. This was necessary in order to adequately design the downstream storm drain infrastructure. Therefore, the pre-developed figures in the table above double-count acreage on the eastern side of the western watershed.

The existing storm drain infrastructure within the western watershed was constructed based on an ‘Ultimate’ build out scenario which included the areas per the Hunsaker Drainage Study North. Therefore, the existing storm drain system within the western watershed will adequately convey the proposed developed flows. The revised flows for the eastern watershed will also not adversely affect the existing storm drain system since the changes proposed will be minor and will occur at the downstream end of the existing storm drain system which currently has available capacity. Neighborhood R-8C will include storm drain and inlets to capture and convey runoff north towards the proposed water quality basin and then into Poggi Canyon.

**B. Village 2 West TM**

The Village 2 West TM will consist of residential dwelling units, park sites, open space areas and paved roads. According to the Hunsaker Drainage Study West, the hydrologic boundary is approximately 48.18 acres with approximately 28.28 acres being graded for residential units, parks, and roads. The boundary is illustrated in the ‘Developed Condition Hydrology Map Exhibit in the Hunsaker Drainage Study. The project area is located in the western portion of Village 2, immediately west of Heritage Road and south of Olympic Parkway.

Storm drain facilities will be constructed from the developed residential areas to the existing Poggi Canyon Detention Basin via Santa Victoria Road. Future developments along the storm drain route will need to tie into it. The Developed Condition Hydrology Map includes the ultimate build-out scenario to account for expected runoff and to correctly design the proposed storm drain infrastructure along Santa Victoria Road.

Table K.5 summarizes the effects of site development at the receiving Otay River. Supporting calculations for the data presented in the table is located in the Hunsaker Drainage Study West report.

<b>Table K.5</b>		
<b>Village 2 West TM</b>		
<b>Summary of Pre vs. Post-Developed Condition Flows to Otay River</b>		
<b>Condition</b>	<b>Drainage Area (acres)</b>	<b>100-Year Peak Flow (cfs)</b>
Pre-Developed	144.32	264.65
Post-Developed	160.2	630.54
<b>Difference</b>	<b>+ 15.88*</b>	<b>+ 365.89</b>

\* =Area diverted along northern project boundary and area double-counted for ephemeral stream.

*Source: Hunsaker Drainage Study*

The development of the Village 2 West TM results in a net increase of runoff discharge of about 366 cfs. However, the entire Village 2 West was included in the Poggi Canyon Channel and Detention Basin analysis included in the *Master Drainage Study for Otay Ranch Village 2, 3, & 4, July 14, 2005, Hunsaker & Associates*. Hunsaker determined that the predeveloped Q100 inflow to the detention basin was determined to be 1,320 cfs. Peak flow attenuation performed by the detention basin will decrease basin (Q100) inflows from 2,295 cfs to 1,115 cfs, which is less than the pre-developed condition. Therefore, Poggi Canyon Channel will be able to handle the expected developed flows.

The main storm drain outlet proposed for the Village 2 West TM outlets into the Poggi Canyon Detention Basin. A water quality basin treats runoff tributary to the main storm drain. The discussion, calculations, and analysis regarding water quality for Village 2 West TM are included in the Hunsaker Drainage Study West.

Prior to discharge from the site, all developed site runoff will receive full water quality treatment in accordance with the current City of Chula Vista Storm Water Manual standards applicable at the time of final engineering. The project will be designed to avoid violation of any water quality standards or waste discharge requirements. Storm water treatment design is further discussed in the Hunsaker WQTR West.

**C. Village 2 South & R-15c TM**

The Hunsaker Drainage Study analyzes the Village 2 South & R-15c TM's. The Village 2 South TM consists of approximately 174.6 acres of planned single family residential, multi-family residential, a CPF, industrial, and open spaces. The R-15c is approximately .73 acres and includes the extension of Heritage Road to Main Street. Similar to the pre-developed analysis, the developed scenario was analyzed by Hunsaker separately as two watersheds; the 'North Portion' and the 'Heritage Road Portion'. Table K.6 below summarizes the effects of site development at the receiving Otay River.

<b>Table K.6</b> <b>Village 2 South &amp; R-15c TM</b> <b>Summary of Pre vs. Post-Developed Condition Flows to Otay River</b>		
<b>Condition</b>	<b>Drainage Area (Acres)</b>	<b>100-Year Peak Flow (Cfs)</b>
Pre-Developed	511	804
Post-Developed	558	1,174
<b>Difference</b>	<b>+ 47*</b>	<b>+ 370</b>
* =Area diverted along eastern project boundary in Heritage Road portion		

*Source: Hunsaker Drainage Study*

The Hunsaker Drainage Study South concluded that the development of Village 2 South and R-15c combined with the preliminary site layout for Village 3 will result in a net cumulative runoff increase of 370 cfs discharged to Otay River and Wolf Canyon. These increases can be attributed to the future development of the adjacent Village 3 project and the area diversion created towards Heritage Road. Overall, Hunsaker's calculations for the North Portion indicate a runoff reduction into Wolf Canyon due to the detention basin.



Although the construction of the Village 2 Comprehensive SPA Plan will increase the 100-year routed peak flow from the Poggi Canyon detention basin no additional detention is necessary. This is because the basin's routed 100-year outflow is less than the pre-development 100-year peak flowrate at the same location. The Poggi Canyon detention basin was not designed to treat first flush runoff. Thus, a combination of Vortech and storm filter treatment units will be provided to treat runoff from the site prior to discharge to Poggi Canyon Creek or Wolf Canyon

## **XII.5.2 Storm Water Quality**

Urban runoff discharged from municipal storm water conveyance systems has been identified by local, regional, and national research programs as one of the principal causes of water quality problems in most urban areas. The Municipal Storm Water Pollutant Discharge Elimination System (NPDES) Permit (Municipal Permit), originally issued on February 21, 2001 to the City of Chula Vista, the County of San Diego, the Port of San Diego, and 17 other cities in the region by the SDRWQCB, requires re-issuance every 5 years. The City of Chula Vista and the other aforementioned County jurisdictions must update their development and implementation of storm water regulations every 5 years to address the storm water pollution issues in private and public development planning and construction projects.

The City requires that sufficient information and analysis on how the project will meet the water quality requirements shall be provided as part of the Tentative Map and/or Site Plan review process. In this manner, the type, location, cost, and maintenance characteristics of the selected BMPs will be given consideration during the project planning and design. Therefore, the City requires that prior to approval of any Tentative Map and/or Site Plan for the project, whichever occurs first, the applicant shall obtain the approval of the City Engineer of a Water Quality Technical Report containing specific information and analysis on how the project will meet the requirements of the City of Chula Vista Storm Water and Discharge Control Ordinance and the NPDES Municipal Permit (including the Final Model SUSMP for the San Diego Region).

During the construction phase, the project will be subject to the requirements of the General Construction Permit. The project will meet the requirements of the General Construction Permit by implementing a site-specific Storm Water Pollution Prevention Plan (SWPPP) and incorporating temporary best management practices (BMPs) for the control of sediment and non-visible pollutants. The site inspection requirements and site-specific Storm Water Sampling and Analysis Strategy (SWSAS) required in the SWPPP will provide recommendations for storm water testing to evaluate the effectiveness of the BMPs. Adjustments to the BMPs will be made as necessary to maintain or improve their effectiveness.

The completed project will incorporate a Post-Construction Storm Water Operation and Management Plan as a requirement for termination of coverage under the General Construction Permit. The completed project will also require treatment of runoff that occurs during the initial stage of a storm event based on the numeric sizing criteria established in the Municipal Permit adopted by the SDRWQCB on February 21, 2001. The completed project will incorporate a treatment train of non-structural and structural BMPs that may include but are not limited to: property owner education, stenciled inlets, street and parking lot sweeping, landscaping, biofilters, filtration devices, hydrodynamic separators, and/or drainage inserts to

meet the applicable requirements of the General Construction Permit, the Municipal Permit, and the Model SUSMP.

Biofilters, grass swales or strips, are flow-based site design BMPs that are designed to remove sediment, heavy metals, and oil and grease from areas such as parking lots. Filtration devices are flow-based structural BMPs designed to remove the following pollutants: sediment, nutrients, heavy metals, organic compounds, trash and debris, oxygen demanding substances, bacteria, oil, and grease. Hydrodynamic separators are flow-based structural BMPs designed to remove sediment, trash, and debris. Drainage inserts are flow-based structural BMPs designed to remove trash and debris.

#### **A. Village 2 North TM**

According to the Hunsaker WQTR North, multiple LID-based BMP's are proposed to treat the 85<sup>th</sup> percentile runoff from the site prior to discharge to the proposed storm drain within the Village 2 North development. The proposed BMPs and methodologies on the Village 2 North TM are consistent with the recently approved *Tentative Map CVT 11-05 (Village 2 R-8a, R-8b & R-9b, R-5b, R-10b, R-11)* approved in February 2012. However, the runoff from Neighborhood R-8C will receive water quality treatment downstream of the neighborhood via a water quality basin

The pervious area of the proposed park area is considered self-treating. East of the park, the future owner/developer of the CPF site will be responsible for the treatment of stormwater flows in accordance with the governing water quality requirements at the time of construction prior to the receiving storm drain system. Runoff generated by any interim mass graded pad (such as the park and CPF sites) will drain to a desilting basin that will be sized and located for each respective pad. For mass graded pads, desilting basins will be designed and located to target sediment prior to discharging flows to the receiving storm drain system. Applicable erosion control measures for permanent stabilization will comply with CASQA Handbook measures and as indicated by each area's SWPPP.

Locations of the BMP's are illustrated and described in the Hunsaker WQTR North. The combination of proposed construction and permanent BMP's will reduce, to the maximum extent practicable, the expected project pollutants and will not adversely impact the beneficial uses of the receiving waters.

Downstream erosion or increased runoff resulting from the construction of this project is being addressed by detention basins that are proposed in Poggi Canyon, Wolf Canyon and Otay Valley Road downstream of proposed storm drain outfalls.

#### **B. Village 2 West TM**

According to the Hunsaker WQTR West, multiple LID-based BMP's are proposed to treat the 85<sup>th</sup> percentile runoff from the site prior to discharge to the proposed storm drain within the Village 2 West TM development. Portions of the street areas at the eastern and western ends of Santa Victoria Road are not part of the drainage watershed tributary to the proposed bioretention basin. These areas will receive water quality treatment via linear bioretention swales. The 85<sup>th</sup> percentile flows will be captured along the gutter with intermittent curb cuts that will direct flows to bioretention areas within the available parkway area directly behind the curb.

The proposed bioretention basin located at the southwest corner of the Olympic Parkway-Santa Victoria Road intersection will treat runoff from the Village 2 West TM street and residential areas only. Future industrial development areas to the south or the residential areas north of Santa Victoria Road will be required to treat their own respective stormwater runoff in accordance with the governing water quality requirements at the time of construction prior to discharging to the receiving storm drain system.

Per the *Technical Memorandum: Susceptibility Analysis of Poggi Creek, January 2013, Tory Walker Engineering, Inc.*, and the *Technical Memorandum: Urban Infill Hydromodification Exemption, Otay Ranch Village 2 West, January 2013, by Tory Walker Engineering, Inc.*, the Otay Ranch Village 2 West project satisfies the conditions for an infill exemption' and is exempt from hydromodification compliance. The two studies in conjunction with each other state that 'the recommended BMPs must only satisfy water quality constraints per the City of Chula Vista SUSMP requirements'.

Future development of each mass graded pad will be the responsibility of the future builder, ensuring that all future developed runoff from these aforementioned pads are treated in accordance with the governing water quality requirements at the time of construction prior to discharging to the receiving storm drain system.

Locations of the BMP's are illustrated and described in the Hunsaker WQTR West. The combination of proposed construction and permanent BMP's will reduce, to the maximum extent practicable, the expected project pollutants and will not adversely impact the beneficial uses of the receiving waters.

### **C. Village 2 South TM**

According to the Hunsaker WQTR South and similar to the North and South projects, multiple LID-based BMP's are proposed to treat the 85<sup>th</sup> percentile runoff from the site prior to discharge to the proposed storm drain within the Village 2 South TM development. Hunsaker proposes Multiple LID-based BMP's to treat the 85th percentile runoff from the site prior to discharge to the proposed storm drain within the Village 3 development. Stormwater treatment for the Heritage Road Portion will be provided via linear bioretention areas. The 85th percentile flows will be captured along the gutter with intermittent curb cuts that will direct flows to bioretention areas within the available parkway area behind the curb.

There are bioretention basins proposed within the North Portion of the Village 2 South development that will treat the industrial and residential areas and streets which are tributary to them. Since the North Portion watershed outlets into Wolf Canyon, the project is required to address hydromodification per the City of Chula Vista SUSMP and HMP. The Hunsaker Drainage Study South includes the hydromodification analysis performed for the residential portions of Village 2 South and the Heritage Road portion. However, since the Otay River is listed as an 'Exempt River Reach' per the County's Final Hydromodification Management Plan, the Heritage Road portion is exempt from addressing HMP requirements.

Hunsaker & Associates considered many alternate treatment BMPs, including media filters, drainage inserts, hydrodynamic separators, tree wells, and wet ponds. Bioretention IMPs and LID Site Design BMPs were deemed to be the most effective and feasible BMP treatment for the Otay Ranch Village 2 South development.

Locations of the proposed BMP's as well as typical street details of the proposed BMP's for Heritage Road are shown in the Hunsaker Drainage Study South. Low Impact Design (LID) BMP's will be implemented on this project site to the maximum extent practicable to ensure water quality treatment is maximized throughout the development.

Locations of the BMP's are illustrated and described in the Hunsaker WQTR South. Low Impact Design (LID) BMP's will be implemented on this project site to the maximum extent practicable to ensure water quality treatment is maximized throughout the development. The combination of proposed construction and permanent BMP's will reduce, to the maximum extent practicable, the expected project pollutants and will not adversely impact the beneficial uses of the receiving waters.

## **XII.6 Financing Drainage Facilities**

### **A. Onsite Facilities**

City policy requires that all master planned developments provide for the conveyance of storm waters throughout the project to City engineering standards. The project will be required to construct all onsite facilities that have not yet been identified through the processing of a subdivision.

In newly developing areas east of I-805, it is the City's policy that development projects assume the burden of funding all maintenance activities associated with drainage facilities. As such, the City will enter into an agreement with the project applicant whereby maintenance of drainage facilities will be assured by one of the following funding methods:

1. A property owner's association that would raise funds through fees paid by each property owner; or
2. A Community Facilities District (CFD) established over the entire project to raise funds through the creation of a special tax for drainage maintenance purposes.

### **B. Offsite Facilities**

There are no off-site drainage facilities required of the project. However, if other projects do not complete an off-site drainage facility that is necessary for this project the applicant may be required to complete the facility.

## **XII.7 Threshold Compliance and Recommendations**

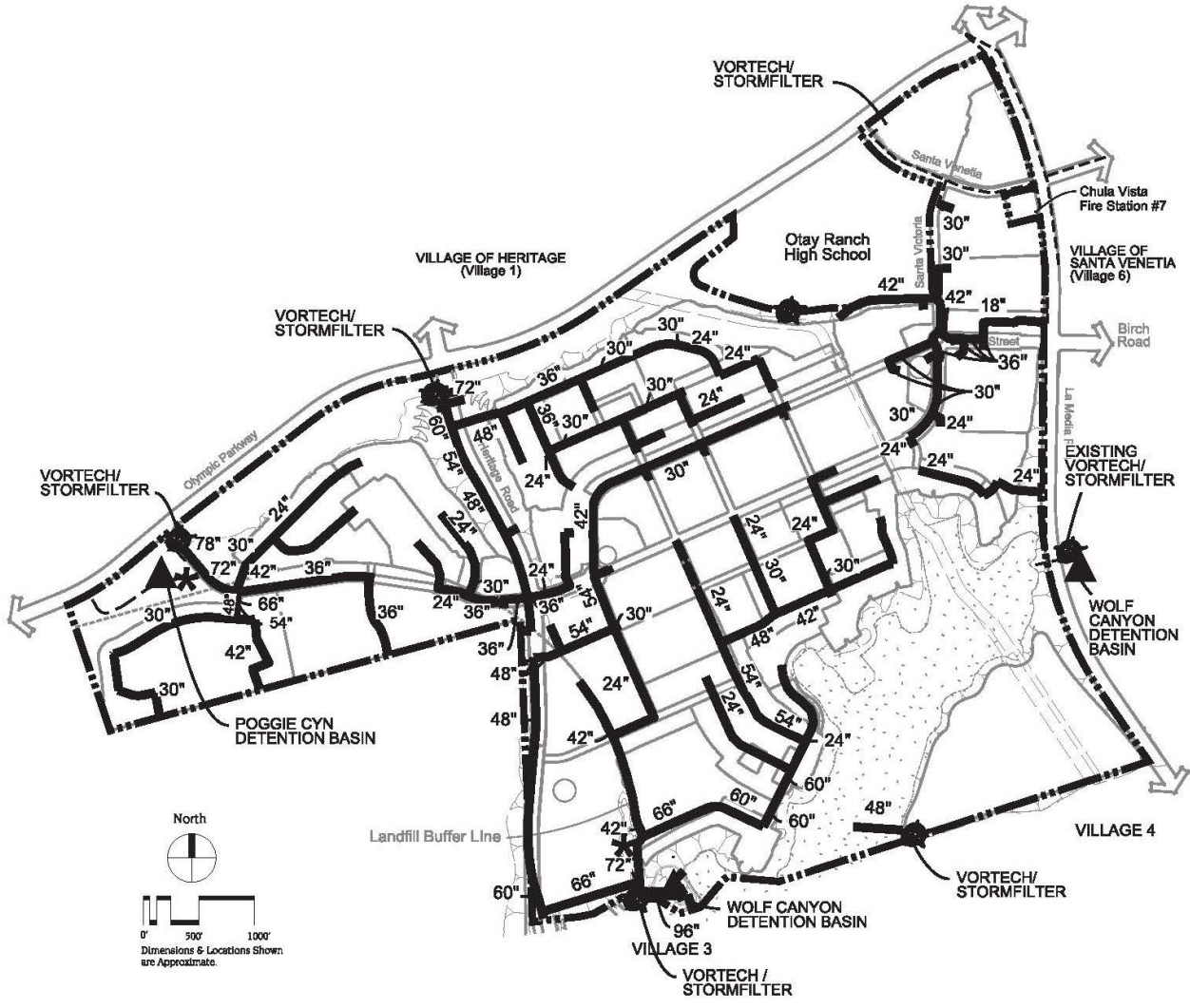
### **A. Compliance**

1. The planned development of the Village 2 Comprehensive SPA Plan will not adversely impact the existing natural drainage condition. The increased runoff due to the development will be mitigated by use of detention basins as identified in the following studies:
  - *Master Drainage Study, for Otay Ranch Villages 2, 3 & 4, dated July 14, 2005, by Hunsaker & Associates.*
  - *TM Drainage Study for Otay Ranch Village 2 North, November 13, 2013 by Hunsaker & Associates.*
  - *TM Drainage Study for Otay Ranch Village 2 West, November 13, 2013 by Hunsaker & Associates.*

- *TM Drainage Study for Otay Ranch Village 2 South & R-15c, November 13, 2013 by Hunsaker & Associates.*
2. Prior to approval of a Tentative Map and/or Site Plan by the Design Review Committee, whichever occurs first, applicant shall demonstrate compliance with the City of Chula Vista Storm Water and Discharge Control Ordinance and the National Pollutant Discharge Elimination System (NPDES) Municipal Permit (including the Final Model SUSMP for the San Diego Region). The Applicant shall obtain the approval of the City Engineer of a Water Quality Technical Report that includes the following elements:
    - a. Description of project characteristics, site conditions, flow patterns, pollutants emanating from the project site, and conditions of concern.
    - b. Description of site design and source control BMPs considered and to be implemented.
    - c. Description of applicable treatment control BMPs considered and to be implemented to reduce or treat the identified pollutants. Treatment control BMPs may be selected from those post-construction BMPs analyzed in the Water Quality Report prepared by Rick Engineering or similar type of BMPs as approved by the City Engineer.
    - d. Justification for selection of the proposed treatment control BMP(s) including 1) targeted pollutants, justification, and alternative analysis, 2) design criteria (including calculations), 3) pollutants removal information (other than vendors specifications), and 4) literature references.
    - e. Site plan depicting locations of the proposed treatment control BMPs; and
    - f. Operation and maintenance plan for the proposed treatment control BMPs.

**B. Recommendations**

1. The project shall be responsible for the conveyance of storm water flows in accordance with City Engineering Standards. The City Engineering Division will review all plans to ensure compliance with such standards.
2. The project shall incorporate urban runoff planning in each Tentative Map.
3. The project shall be required to comply with all current regulations related to water quality including best management practices (BMPs) for the construction and post construction phases of the project. Both the future land development construction drawings and associated reports shall be required to include details, notes and discussions relative to the required or recommended BMPs.
4. The project applicant will assure the maintenance of drainage facilities-by a property owner's association that would raise funds through fees paid by each property owner and/or participation in a Community Facilities District (CFD) established over the entire project to raise funds through the creation of a special tax for drainage maintenance purposes.
5. Additional drainage analysis may be required at the tentative map phase of the project to demonstrate the adequacy of the proposed on-site storm drain system(s) and the existing storm drain connections.
6. Future drainage reports shall be prepared by the Applicant, as required by the City of Chula Vista, for the final engineering phase(s) of the project.



**LEGEND**

-  Existing Storm Drain Line Sized
-  Storm Drain Line Sized
-  Vortech and StormFilter (or equivalent)
-  Detention Basin
-  Water Quality / Hydromodification Basin

Source: Draft Village of Montecito & Otay Ranch Business Park SPA Plan, July 2014

**Proposed Drainage Facilities  
Exhibit 14**

## **XIII. AIR QUALITY**

### **XIII.1 City Threshold Standards**

The GMOC shall be provided with an Annual Report which:

1. Provides an overview and evaluation of local development projects approved during the prior year to determine to what extent they implemented measures designed to foster air quality improvement pursuant to relevant regional and local air quality improvement strategies.
2. Identifies whether the city's development regulations, policies, and procedures relate to, and/are consistent with current, applicable federal, state, and regional air quality regulations and programs.
3. Identifies non-development related activities being undertaken by the city toward compliance with relevant federal, state, and local regulations regarding air quality, and whether the city has achieved compliance.

The city shall provide a copy of said report to the Air Pollution Control District (APCD) for review and comment. In addition, the APCD shall report on overall regional and local air quality conditions, the status of regional air quality improvement implementation efforts under the Regional Air Quality Strategy and related federal and state programs, and the effect of those efforts/programs on the city of Chula Vista and local planning and development activities.

### **XIII.2 Service Analysis**

The City of Chula Vista has a Growth Management Element (GME) in its General Plan. One of the stated objectives of the GME is to be proactive in its planning to meet federal and state air quality standards. This objective is incorporated into the GME's action program.

To implement the GME, the City Council has adopted the Growth Management Program that requires Air Quality Improvement Plans (AQIP) for major development projects (50 residential units or commercial/industrial projects with equivalent air quality impacts). Title 19 (Sec. 19.09.0508) of the Chula Vista Municipal Code requires that a SPA submittal contain an AQIP. The AQIP shall include an assessment of how the project has been designed to reduce emissions as well as identify mitigation measures in accordance with the adopted AQIP Guidelines.

The Villages 2, 3 and Portion of Village 4 SPA Plan Project was previously evaluated under the 2002 AQIP Guidelines and, pursuant to those guidelines, opted to comply with the GreenStar program. Subsequent to the adoption of the Villages 2, 3 and Portion of Village 4 SPA Plan, the City updated the municipal code relative to energy efficient. As such, the Project is now required to comply with the Green Building and Energy Efficiency Ordinances, CVMC 15.12 and 15.26.030 respectively, which require implementing sustainable design features and improving building energy conservation 15% to 20% above 2008 State Energy Code requirements. Therefore, the previous 2002 AQIP requirements related to GreenStar and the 2001 energy code are no longer applicable and were removed from the AQIP Guidelines in 2009.

The Air Pollution Control District is responsible for the Air Quality Maintenance Program in compliance with the California Clean Air Act. There is no local Master Plan for Air Quality.

### **XIII.3 Adequacy Analysis**

*The Air Quality Analysis for the Otay Ranch Village Two Comprehensive Specific Plan Amendment (Air Quality Report) February 2014, Scientific Resources Associated (SRA),*

evaluated the potential for adverse impacts to the ambient air quality due to construction and operational emissions resulting from the Village 2 Comprehensive SPA Project. Construction would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. The analysis concludes that the daily construction emissions would not exceed the significance thresholds for criteria pollutants (See Table L.1).

<b>Proposed Project Emissions</b>						
2014	25.83	91.02	118.11	0.20	10.76	4.97
2015	24.89	87.98	111.68	0.20	10.66	4.88
2016	23.65	85.58	106.25	0.20	10.61	4.83
2017	22.57	83.83	101.68	0.20	10.58	4.80
2018	21.65	82.39	97.83	0.20	10.57	4.79
2019	20.95	81.19	94.72	0.20	10.56	4.78
2020	20.42	79.54	92.41	0.20	10.54	4.77
2021	18.84	56.09	73.13	0.17	9.75	4.07
2022	18.20	55.12	71.32	0.17	9.75	4.06
2023	17.97	54.22	69.61	0.17	9.75	4.06
2024	17.52	54.05	68.03	0.17	9.75	4.06
2025	17.22	53.92	66.91	0.17	9.75	4.06
<i>Maximum Daily Emissions</i>	25.83	91.02	118.11	0.20	10.76	4.97
<i>Chula Vista Threshold</i>	75	100	550	150	150	55
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

*Source: Dudek*

### **Operational Emissions**

The Operational impacts associated with the Village 2 Comprehensive SPA Plan project would include impacts associated with vehicular traffic, as well as area sources such as natural gas use, consumer products use, and architectural coatings use for maintenance purposes. Emissions associated with project operations were estimated using the CalEEMod Model, based on the trip generation rates in the C+R TIA. The trip generation rates in the C+R TIA provided for four horizon years for the project: 2015, 2020, 2025, and 2030. Emissions were calculated for each of the four horizon years. The analysis includes measures that would reduce emissions, including natural gas-fired fireplaces, meeting the City's requirement of exceeding Title 24 energy efficiency standards (as of 2008) by 15%, and project design features such as a mix of uses and access to transit. The use of natural gas fireplaces is a project design feature. Table L.2 provides a summary of the estimated operational emissions for the project.



<b>Table L.2</b>						
<b>Village 2 Comprehensive SPA Plan</b>						
<b>Estimated Daily Maximum Operational Emissions – 2030 (pounds/day)</b>						
<b>Proposed Project Emissions</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<i>Summer</i>						
Motor Vehicles	74.84	46.79	264.97	1.04	70.55	19.56
Area Sources	71.31	1.47	127.89	6.74e-003	2.80	2.78
Energy Use	0.72	6.19	2.81	0.04	0.50	0.50
<b>Total</b>	<b>146.87</b>	<b>54.45</b>	<b>395.67</b>	<b>1.08</b>	<b>73.85</b>	<b>22.84</b>
<i>City of Chula Vista Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b>Threshold Exceeded?</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<i>Winter</i>						
Motor Vehicles	90.28	49.69	281.17	0.99	70.55	19.57
Area Sources	71.31	1.47	127.89	6.74e-003	2.80	2.78
Energy Use	0.72	6.19	2.81	0.04	0.50	0.50
<b>Total</b>	<b>162.31</b>	<b>57.35</b>	<b>411.87</b>	<b>1.03</b>	<b>73.85</b>	<b>22.85</b>
<i>City of Chula Vista Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b>Threshold Exceeded?</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

*Source: Dudek*

As shown in Table L.2, operational emissions associated with the Village 2 Comprehensive SPA Plan project would exceed the City of Chula Vista’s significance thresholds for VOCs and NO<sub>x</sub> for all buildout years. The emissions are attributable to vehicles and area sources, including use of consumer products. Emissions associated with consumer products use would occur regardless of the location of residences, and there are no available mitigation measures that would reduce these emissions to below a level of significance. Emissions associated with vehicles have been reduced in the project through implementation of project design features, including incorporating a mix of uses into the project and access to transit through access to MTS bus routes. Additionally, there is a potential for development of a BRT station adjacent to the project site; however, no reductions have been included to account for this future measure. There are no additional measures that would reduce emissions associated with project operations to below a level of significance. Impacts would, therefore, be significant and unavoidable.

The *Global Climate Change Evaluation for the Otay Ranch Village Two Comprehensive Specific Plan Amendment (GHG report)*, February 2014, prepared by Scientific Resources Associated (SRA) evaluated the potential effect on global climate change, and emissions of greenhouse gases were estimated based on the use of construction equipment and vehicle trips associated with construction activities, as well as operational emissions once construction phases are complete. The estimated GHG emissions associated with vehicular traffic, area sources, electrical generation, water supply, and solid waste generation are shown below in Table L.3. The estimated emissions of CO<sub>2</sub>E would be 30,811 metric tons per year without the GHG reduction measures ("business as usual"), and 19,315 metric tons per year with the GHG reduction measures. The results of the GHG inventory for emissions with implementation of GHG reduction measures are presented in Table L.3.

<b>Table L.3</b>			
<b>Village 2 Comprehensive SPA Plan</b>			
<b>Estimated Operational GHG Emissions (with Reductions)</b>			
<b>Source</b>	<b>Annual Emissions (metric tons/year)</b>		
	<i>CO<sub>2</sub></i>	<i>CH<sub>4</sub></i>	<i>N<sub>2</sub>O</i>
Electrical Generation	1,104	0.0460	0.0123
Natural Gas Combustion	1,423	0.1583	0.0027
Water Supply	541	0.0226	0.0060
Solid Waste	245	14.46	0.0000
Motor Vehicles	14,707	0.1165	0.7163
Amortized Annual Construction Emissions	756	—	—
<b>Total</b>	<b>18,776</b>	<b>14.8034</b>	<b>0.7373</b>
Global Warming Potential Factor	<b>1</b>	<b>21</b>	<b>310</b>
CO <sub>2</sub> E Emissions	18,776	311	229
<b>Total CO<sub>2</sub>E Emissions</b>	<b>19,315</b>		
<b>Business As Usual CO<sub>2</sub>E Emissions</b>	<b>30,811</b>		
<b>Reduction</b>	<b>37.31%</b>		

*Source: Dudek*

As shown in Table L.3, the proposed project would meet the significance threshold by reducing operational GHG emissions by 37.31%. The emissions, with inclusion of GHG reduction measures, would be below the South Coast Air Quality Management District (SCAQMD)'s proposed threshold of 3,000 metric tons of CO<sub>2</sub>e, and would also exceed the City of Chula Vista's goal of 20% below business as usual, and the goal based on the Scoping Plan of reducing emissions by 28.35% below business as usual.

With implementation of Chula Vista-required GHG reduction measures, the Project would reduce GHG emissions by as much as 25%, therefore exceeding the target of 20% below business as usual that has been established for the purposes of assessing operational GHG emissions of projects in the City of Chula Vista. Furthermore, the Project would be consistent with Section 15.26.030 of the City's Municipal Code by employing energy efficient measures beyond those required by the Energy Code, resulting in a 15% reduction in emissions generated by in-home energy use.

#### **XIII.4 Threshold Compliance and Requirements**

The City will continue to provide a development forecast to the APCD in conformance with the threshold standard. See the *Air Quality Analysis for the Otay Ranch Village Two Comprehensive Specific Plan Amendment (Air Quality Report) April 25, 2014, Scientific Resources Associated (SRA)*.

- A. The applicant shall demonstrate consistency with Section 15.26.030 of the City's Municipal Code by employing energy efficiency measures beyond those required by the Energy Code, resulting in a 15% reduction in emissions generated by in-home energy use.

**XIV. CIVIC CENTER:**

**XIV.1 City Threshold Standards:**

There are no adopted threshold standards for the Civic Center. Funds for the most recent renovation of the Civic Center are tied to the collection of the PFDIF fees in effect at the time building permits are issued.

**XIV.2 Existing Conditions:**

In July of 2001, the final master plan for the renovations to the Civic Center was approved by City Council. Rebuilding the Civic Center was projected to cost approximately \$50 million, which was primarily funded by development fees (89%). The new City Hall Redevelopment, the construction of the new Public Services Building and the gutting and remodeling of the old Police Station for additional offices was completed in 2008.

**XIV.3 Adequacy Analysis:**

The need for the Civic Center cannot be easily related to population figures or acres of commercial and industrial land which will be developed in the future. Expansion of the Civic Center Complex included space planning, design, and construction to keep pace with demand for additional work space. City Hall facilities have been renovated and now include a new state of the art Council Chambers, a conversion of the old Police Station to additional office space and rebuilding of the Public Services Building.

**XIV.4 Financing Civic Center Facilities:**

The Public Facilities Development Impact Fee (PFDIF) was updated by the Chula Vista City Council on November 7, 2006 by adoption of Ordinance 3050. The PFDIF amount is subject to change as it is amended from time to time. The Civic Center PFDIF Fee for Single Family Development is \$2,756/unit. The Civic Center PFDIF Fee for Multi-Family Development is \$2,610/unit. Only residential development impact fees apply to the project. The PFDIF amount is subject to change as it is amended from time to time. At the current fee rate, the project Civic Center Fee obligation at buildout is approximately \$ 4,100,010 (see Table M.1).

<b>Table M.1 Village 2 Comprehensive SPA Public Facilities Fees For Civic Center</b>				
<b>Land Use</b>	<b>Dwelling Units</b>	<b>Acres</b>	<b>Fee/DU or Ac.</b>	<b>Total Fees</b>
Single Family	-70		\$2,756	-\$192,920
Multi-Family	1632		\$2,610	\$4,259,520
Industrial		0	\$2,779	\$ 0
Mixed Use Commercial		3.8	\$8,792	\$ 33,410
<b>Total</b>	<b>1562</b>			<b>\$4,100,010</b>

Table M.1 is only an estimate. Actual fees at the time building permits are requested may be different. PDIF Fees are subject to change depending upon City Council actions and or Developer actions that change residential densities, industrial acreage or commercial acreages.

Public Facility Fees for the Civic Center are to be paid prior to the issuance of building permits at the rate in effect at the time payment is made.

**XV. CORPORATION YARD**

**XV.1. Threshold Standards:**

There are no adopted threshold standards for the Corporation Yard.

**XV.2. Existing Conditions:**

The 2.5 acre Corporate Yard Facility located at 1800 Maxwell Road was previously an SDG&E equipment and repair facility. The city renovated and added new improvements for the maintenance and repair of city owned equipment. This facility consists of a renovated building that serves as the administration building for the Corporate Yard. The previous SDG&E shop buildings were renovated and new shops added as well as a new maintenance building. The Corporate Yard includes parking for employees, city vehicles and equipment. In addition, there is a Bus Wash/Fuel Island/CNG and associated equipment on-site.

**XV.3. Adequacy Analysis:**

The need for a Corporate Yard cannot be easily related to population figures or acres of commercial and industrial land which will be developed in the future. 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 has been specifically related to new development.

**XV.4. Financing Corporate Yard Facilities:**

The Public Facilities Development Impact Fee (PFDIF) was updated by the Chula Vista City Council on November 7, 2006 by adoption of Ordinance 3050. The PFDIF amount is subject to change as it is amended from time to time. The Corporate Yard PFDIF Fee for Single Family Development is \$450/unit and for Multi-Family Development it is \$360/unit. At the current fee rate, the Village 2 Comprehensive SPA Plan Corporate Yard Fee obligation at build-out is \$585,033 (see Table N.1).

<b>Land Use</b>	<b>Dwelling Units</b>	<b>Acres</b>	<b>Fee/DU or Ac.</b>	<b>Total Fees</b>
Single Family	-70		\$450	\$31,500
Multi-Family	1632		\$360	\$587,520
Industrial		0	\$3,596	\$ 0
Mixed Use Com'l		3.8	\$7,635	\$29,013
<b>Total</b>	<b>1562</b>			<b>\$585,033</b>

Table M.1 is only an estimate. Actual fees may be different. PDIF Fees are subject to change depending upon City Council actions and or Developer actions that change residential densities. Actual fees may be different.

Corporate Yard facilities will be funded through the payment of the public facilities fees. Fees shall be paid prior to the issuance of building permits at the rate in effect at the time payment is made.

<sup>37</sup> The PDIF Fee is subject to change as it is amended from time to time. Changes in the number of dwelling units, Industrial Acreage or Commercial Acreage may affect the estimated fee.

**XVI. OTHER PUBLIC FACILITIES**

**XVI.1. Threshold Standard:**

There are no adopted threshold standards for other facilities, which are part of the Public Facilities Development Impact Fee (PFDIF) Program. The information regarding these capital items is being provided in this section of the PFFP to aid the city in calculating the PFDIF to be paid by the Village 2 Comprehensive SPA project.

**XVI.2. Existing Conditions:**

The City collects funds from building permit issuance in the Eastern Territories for deposit to the accounts associated with Administration costs only and not the other aforementioned public facilities. Funds are not currently collected for records management, telecommunications, computer systems and GIS.

**XVI.3. Financing Other Public Facilities:**

The Public Facilities Development Impact Fee (PFDIF) was updated by the Chula Vista City Council on November 7, 2006 by adoption of Ordinance 3050. The PFDIF amount is subject to change as it is amended from time to time. The Administration PFDIF Fee for Single-Family Development is \$601/unit and Multi-Family Development is \$568/unit. At the current fee rate, the Village 2 Comprehensive SPA Plan Other Public Facilities Fee obligation at build-out is approximately \$892,191 (see Table O.1).

<b>Land Use</b>	<b>Dwelling Units</b>	<b>Acres</b>	<b>Fee/DU or Ac.</b>	<b>Total Fees</b>
Single Family	-70		\$601	\$ 0
Multi-Family	1632		\$568	\$ 926,976
Industrial		0	\$606	\$ 0
Mixed Use Com'l		3.8	\$1,917	\$ 7,285
<b>Total</b>	<b>1562</b>			<b>\$892,191</b>

Table O.1 is an estimate only since PFDIF Fees are subject to change depending upon City Council actions and or Developer actions that change residential densities. Actual fees may be different.

PFDIF Fees shall be paid prior to the issuance of building permits at the rate in effect at the time payment is made.

<sup>38</sup> The PDIF Fee is subject to change as it is amended from time to time. Changes in the number of dwelling units, Industrial Acreage or Commercial Acreage may affect the estimated fee.

## **XVII. FISCAL ANALYSIS**

### **XVII.1. Threshold Standard**

- A. 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.
- B. The GMOC shall be provided with an annual “development impact fee” report, which provides an analysis of development impact fees collected and expended over the previous 12-month period.

### **XVII.2 Project Processing Requirements**

There is no existing Master Plan for fiscal issues. The SPA Plan and the PFFP are required by the Growth Management Program to prepare a phased fiscal/economic report dealing with revenue vs expenditures including maintenance and operations.

### **XVII.3 Project Description**

Baldwin & Sons has prepared and submitted the Village 2 Comprehensive SPA Plan, which is an amendment that proposes land use changes in the Otay Ranch Village 2 SPA Plan and will impact surrounding villages. The City of Chula Vista retained HR&A Advisors (HR&A), an experienced fiscal consultant, to estimate the fiscal impacts of the proposed amendment. The amendment proposes approximately 1,562 additional residential units, a reduction in industrial land, additional community purpose facilities (CPF) acreage, approximately 12.2 additional acres of new parkland, and a second elementary school in Village 2.

The fiscal impact analysis evaluates the net fiscal impact of the Village 2 Comprehensive SPA Amendment (“Village 2 Amendment”) between 2014 and build out and reviews the annual net fiscal impact of the approved Village 2 SPA (“Base Village 2 SPA”) across a similar period, as a point of comparison.

### **XVII.4 Fiscal Analysis of Project**

This section of the PFFP is based upon the *Draft Fiscal Impact Analysis of Comprehensive Village 2 Amendment*, by HR&A Advisors, dated July 21, 2014. This FIA is referred to as the HR&A FIA throughout this document. The HR&A FIA evaluates the net fiscal impact of the Village 2 Comprehensive SPA Amendment (“Village 2 Amendment”) between 2014 and build out (“Future Build Out”), if and when it occurs, and reviews the annual net fiscal impact of the approved Village 2 SPA (“Base Village 2 SPA”) across a similar period, as a point of comparison.

The City of Chula Vista’s SPA Fiscal Impact Framework was used by HR&A to estimate the net fiscal impacts. As prescribed in the SPA Fiscal Impact Framework, HR&A used historical City of Chula Vista revenue and expenditure factors from the SPA Fiscal Impact Framework to estimate fiscal revenues and expenditures expected to grow proportionally with

new development. Special analysis models are used to estimate revenues, such as property tax revenues, motor vehicle license fee (MVLFF) in lieu revenues, and sales taxes that may not grow proportionately with new development.

The detailed methodology of the SPA Fiscal Impact Framework is described in the memorandum “*SPA Fiscal Analysis –Fiscal Model Methodology Including the Development of Fiscal Factors in the Analysis of SPA Proposals*”, dated February 2008.

#### **XVII.5. Fiscal Impacts**

The HR&A FIA projects all the fiscal revenues and fiscal expenditures to the City of Chula Vista as outlined in the City of Chula Vista’s SPA Fiscal Impact Framework. The fiscal revenues are compared to the fiscal expenditures associated with the Village 2 Comprehensive SPA Plan to estimate the net fiscal impact of the project. These are summarized in Table P.1. The figures in this table have been adjusted to reflect 2014 dollars. The HR&A FIA is attached as Appendix A and presents the detailed analysis of the project in narrative and tabular form.

This fiscal impact analysis projects all fiscal revenues and fiscal expenditures to the City of Chula Vista as outlined in the City of Chula Vista’s SPA Fiscal Impact Framework. Annual fiscal revenues are compared to annual fiscal expenditures associated with the Village 2 Comprehensive SPA Plan and Base Village 2 SPA land use plans to estimate the net fiscal impact of each scenario. The difference between the Base Village 2 SPA net fiscal impact and the Village 2 Comprehensive SPA Plan ’s net fiscal impacts is the opportunity cost of the Village 2 Comprehensive SPA Plan .

According to the HR&A FIA, the Village 2 Comprehensive SPA Plan will generate approximately \$215,000 to the City of Chula Vista in 2030. The Village 2 Comprehensive SPA Plan is expected to generate approximately \$5.8 million in annual revenues in 2030 (Year 17). With the large increment of new residential development, property taxes are the greatest source of revenues, followed by MVLFF In-Lieu revenues. The Village 2 Comprehensive SPA Plan is projected to generate approximately \$5.6 million in annual fiscal costs to the City of Chula Vista in 2030 (Year 17).

The Base Village 2 SPA is projected to generate an annual net fiscal cost during the current year (Year 0) and a fiscal cost in Year 1, but is then expected to generate positive annual net fiscal impacts going forward. The Base Village 2 SPA generates negative annual fiscal impacts in 2014 (Year 1) and positive annual net impacts, thereafter (Year 2 through Future Build Out). In 2030, the annual fiscal impact is projected to be approximately \$607,000 to the City of Chula Vista. The Base Village 2 SPA is expected to generate approximately \$4.3 million in annual revenues in 2030 (Year 17). Similar to the Village 2 Amendment scenario, property taxes are the greatest source of revenues, followed by MVLFF In-Lieu revenues. The Base Village 2 SPA is projected to generate \$3.7 million in annual fiscal costs to the City of Chula Vista in 2030 (Year 17).

Overall, the Base Village 2 SPA generates greater positive net fiscal impacts to the City of Chula Vista relative to the Village 2 Comprehensive SPA Plan. With a greater number of total residential units, the Village 2 Comprehensive SPA Plan generates greater annual fiscal revenues relative to the Base Village 2 SPA, but also generates higher annual fiscal costs in terms of public safety and costs driven by population. At Future Build Out, if and when it

occurs, the Village 2 Comprehensive SPA Plan will generate \$429,000 in annual fiscal revenues to the City of Chula Vista, compared to \$835,000 generated by the Base Village 2.

Between 2014 and 2030, the Village 2 Comprehensive SPA Plan generates net fiscal impact of +\$560,000 in present value at a discount rate of 4 percent. During that same period, the Base Village 2 SPA generates a net fiscal impact of +\$3.7 million in present value at a discount rate of 4 percent.



**Table P.1  
Village 2 Fiscal Impacts**

***Village 2 Comprehensive SPA Plan – Net Fiscal Impact Summary***

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
<i>2014 Dollar Inflation Factor</i>	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069
Total Expenditures	\$762,848	\$1,296,660	\$1,648,457	\$2,033,234	\$2,530,553	\$3,027,872	\$3,495,883	\$3,839,754	\$4,183,626	\$4,559,057	\$4,803,440	\$4,991,381	\$5,128,451	\$5,265,520	\$5,402,590	\$5,551,957	\$5,560,474	\$5,560,474	\$5,688,890
Total Revenues	\$721,560	\$1,187,790	\$1,977,230	\$2,187,104	\$2,621,626	\$3,094,067	\$3,489,629	\$3,810,038	\$4,131,777	\$4,468,073	\$4,756,963	\$4,949,765	\$5,106,870	\$5,269,417	\$5,441,759	\$5,626,089	\$5,744,845	\$5,775,210	\$6,118,040
<b>Net Fiscal Impacts (2014 Dollars)</b>	<b>(\$41,288)</b>	<b>(\$108,870)</b>	<b>\$328,773</b>	<b>\$153,870</b>	<b>\$91,073</b>	<b>\$66,195</b>	<b>(\$6,254)</b>	<b>(\$29,716)</b>	<b>(\$51,849)</b>	<b>(\$90,984)</b>	<b>(\$46,477)</b>	<b>(\$41,616)</b>	<b>(\$21,580)</b>	<b>\$3,897</b>	<b>\$39,168</b>	<b>\$74,132</b>	<b>\$184,370</b>	<b>\$214,735</b>	<b>\$429,149</b>

Source: HR&A

***Village 2 SPA – Net Impact Summary***

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
<i>2014 Dollar Inflation Factor</i>	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069
Total Expenditures	\$758,472	\$1,292,258	\$1,644,080	\$2,028,630	\$2,526,254	\$3,045,961	\$3,545,558	\$3,647,475	\$3,655,989	\$3,664,502	\$3,673,015	\$3,681,528	\$3,690,042	\$3,698,555	\$3,707,068	\$3,715,582	\$3,724,095	\$3,724,095	\$3,930,395
Total Revenues	\$721,559	\$1,211,827	\$2,016,705	\$2,243,847	\$2,697,306	\$3,188,471	\$3,669,336	\$3,925,074	\$3,935,621	\$3,954,345	\$3,992,759	\$4,034,199	\$4,078,525	\$4,125,615	\$4,175,361	\$4,227,669	\$4,282,458	\$4,330,608	\$4,763,068
<b>Net Fiscal Impacts (2014 Dollars)</b>	<b>(\$36,912)</b>	<b>(\$80,431)</b>	<b>\$372,625</b>	<b>\$215,217</b>	<b>\$171,052</b>	<b>\$142,510</b>	<b>\$123,778</b>	<b>\$277,599</b>	<b>\$279,632</b>	<b>\$289,843</b>	<b>\$319,743</b>	<b>\$352,670</b>	<b>\$388,483</b>	<b>\$427,060</b>	<b>\$468,293</b>	<b>\$512,088</b>	<b>\$558,363</b>	<b>\$606,513</b>	<b>\$832,672</b>

Source: HR&A

## **XVIII. PUBLIC FACILITY FINANCE**

### **XVIII.1. Overview**

All development within the City of Chula Vista must be in compliance with the City's Growth Management Program. Appropriate public facility financing mechanisms are required and approved by the City to fund the acquisition, construction and maintenance of public facilities. New facilities will be required to support the planned development of the project.

Public facilities are generally provided or financed in one or more of the following ways: Subdivision Exaction, Development Impact Fee, and Debt Financing. It is anticipated that two methods will be utilized for the Otay Ranch Village 2 Comprehensive SPA project to construct and finance public facilities.

### **XVIII.2. Subdivision Exactions**

Neighborhood level public improvements will be developed simultaneously with related residential and non-residential subdivisions. Through 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.

### **XVIII.3. Development Impact Fee Programs**

Development Impact Fees are imposed by the City of Chula Vista and the Otay Municipal Water District, consistent with State law, to contribute to the financing of capital facilities improvements. Public infrastructure is constructed by the public agency or Developer with a reimbursement or credit against specific fees. The Village 2 Comprehensive SPA Project is subject to fees established to help defray costs of facilities that will benefit the project. These fees include but may not be limited to:

- A. Transportation Development Impact Fee (TDIF): Established to provide financing for circulation element road projects of regional significance.
- B. Public Facilities Development Impact Fee (PFDIF): Established to collect funds for civic center facilities, police, corporation yard, libraries, fire suppression system, recreation and administration.
- C. Traffic Signal Fees: To pay for traffic signals associated with circulation element streets.
- D. Park Acquisition and Development Fee — PAD Fee established to pay for the acquisition and development of park facilities.
- E. Otay Water District (OWD) Fees: The district may require annexation to an existing improvement district or creation of some other finance mechanism that may result in specific fees being modified.
- F. Poggi Canyon and Wolf Canyon/Salt Creek Sewer Development Impact Fee: To pay for sewer facilities within the Poggi Canyon and Wolf Canyon/Salt Creek basins.
- G. Pedestrian Bridge Development Impact Fee: Established to collect funds to construct two bridges connecting to Village 2: the West Olympic Parkway Pedestrian Overcrossing (POC) between Village 1 and Otay Ranch High School, which is constructed, and the South La Media POC between Village 2 and Village 6 at the intersection of Santa Venetia and La Media.

#### **XVIII.4. Debt Finance Programs**

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

##### **A. Assessment Districts**

Special assessment districts may be proposed for acquiring, constructing and/or maintaining certain public improvements under the Municipal Improvement Act of 1913 and the Improvement Bond Act of 1915. The City has suspended the use of the Lighting and Landscape Act of 1972 for new open space district formation due to the passage of Proposition 218. The administration of the special assessment district is the responsibility of the public agency.

##### **B. Community Facilities District (CFD)**

On January 13, 1998, the City Council adopted the "City of Chula Vista statement of goals and policies regarding the establishment of Community Facilities Districts" (CFD's). The approval of this document ratified the use of CFD's as a public financing mechanism for:

- The construction and/or acquisition of public infrastructure, and
- The financing of authorized public services, including services provided by open space districts.

On April 28, 1998, the City Council enacted the "Chula Vista Community Facilities District Ordinance." This ordinance adopted the Mello-Roos Act with modifications to additionally include the following:

- Incorporate all maintenance activities authorized by the "Landscaping & Lighting Act of 1972" (1972 Act) and
- Include maintenance activities not listed in the "Mello-Roos Act" or the "1972 Act."

Special assessment financing may be appropriate when the value or benefit of the public facility can be assigned to specific properties. 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.

##### **C. Mello-Roos Community Facilities Act of 1982**

The Mello-Roos Community Facilities Act of 1982 authorizes formation of community facilities districts, which 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:

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

In addition, the City has enacted an ordinance that adopted the Mello-Roos Act with modifications to accomplish the maintenance of facilities.

## **XVIII.5. Other Methods Used to Finance Facilities**

### **A. General Fund**

The City of Chula Vista's general fund pays 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.

### **B. State and Federal Funding**

These funds are 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.

### **C. Dedications**

Dedication of sites by developers for public capital facilities is a common financing tool used by many cities.

### **D. Homeowners Associations**

One or more Community Homeowner Associations may be established by the developer to manage, operate and maintain private facilities and common areas within the project.

### **E. Developer Reimbursement Agreements**

Certain facilities that are off-site of project and/or provide regional benefits may be constructed in conjunction with the development of the project. 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.

### **F. Special Agreements/Development Agreement**

This category includes special development programs for financing 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.

### **G. Park Acquisition and Development Fees**

Fee established to pay land and improvements by new development.

## **XVIII.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.

- A. Prior to receiving final approval, developers shall demonstrate and guarantee that compliance is maintained with the City's adopted threshold standards.
- B. 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.
- C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. 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.

**XVIII.7. Cumulative Debt**

The City of Chula Vista has an established policy limiting the maximum debt 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 that can utilize public finance mechanisms and, therefore, cannot 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 debt 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.

## **XVIII.8. Lifecycle Cost**

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

"...The inventory shall include Life Cycle Cost ("LCC") projections for each element in 19.09.060(E)...as 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 the elements..."

### **Background**

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 which may influence the economic feasibility of applying LCC analysis are:

- A. Energy Intensiveness — LCC should be considered when the anticipated energy costs of the purchase are expected to be large throughout its life.
- B. 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.
- C. 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.
- D. 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.

City Codes and Regulations provide the standards and design specifications that are required for infrastructure. Developers and contractors are required to meet city standards and design regulations. These standards and specifications have been developed over time to achieve the maximum life cycle of infrastructure that will be owned and maintained by the city. Prior to approval of new infrastructure, City Staff thoroughly reviews all plans and specifications to insure the maximum life cycle.

The initial construction of roads, traffic signals, sewers, drainage, lighting, etc., usually accounts for the bulk of the costs associated with a project. The initial construction activities consist of preliminary engineering, construction engineering, traffic control, etc. Subsequent to initial construction, the City of Chula Vista is responsible for maintenance, rehabilitation and eventual reconstruction/replacement over a projected 50 year life expectancy.

All project public facilities for the Village 2 Comprehensive SPA Plan are subject to the City's life cycle cost analysis before construction. The City uses LCC analysis prior to or concurrent with the design of public facilities required by new development. Such requirement assists in the determination of the most cost effective selection of public facilities.

## **APPENDIX**

- A. Fiscal Impact Analysis from HR&A Advisors**
- B. Market Analysis in Support of the Otay Ranch Village 2 Comprehensive SPA Amendment**



# **Fiscal Impact Analysis of the Comprehensive Village 2 Amendment**

Prepared for:  
The City of Chula Vista  
July 21, 2014

Prepared by:  
HR&A Advisors, Inc.  
700 South Flower Street, Suite 2730  
Los Angeles, CA 90017



# Executive Summary

Baldwin & Sons is currently preparing an amendment that proposes land use changes in the Otay Ranch Village 2 SPA Plan and will impact surrounding villages. The City of Chula Vista has retained HR&A Advisors (HR&A), an experienced fiscal consultant, to estimate the fiscal impacts of the proposed amendment.

The amendment proposes approximately 1,560 additional residential units, an 11.9-acre reduction in industrial uses, 6.3 additional acres of community purpose facilities (CPF), 12.2 additional acres of parkland, and a second elementary school in Village 2.

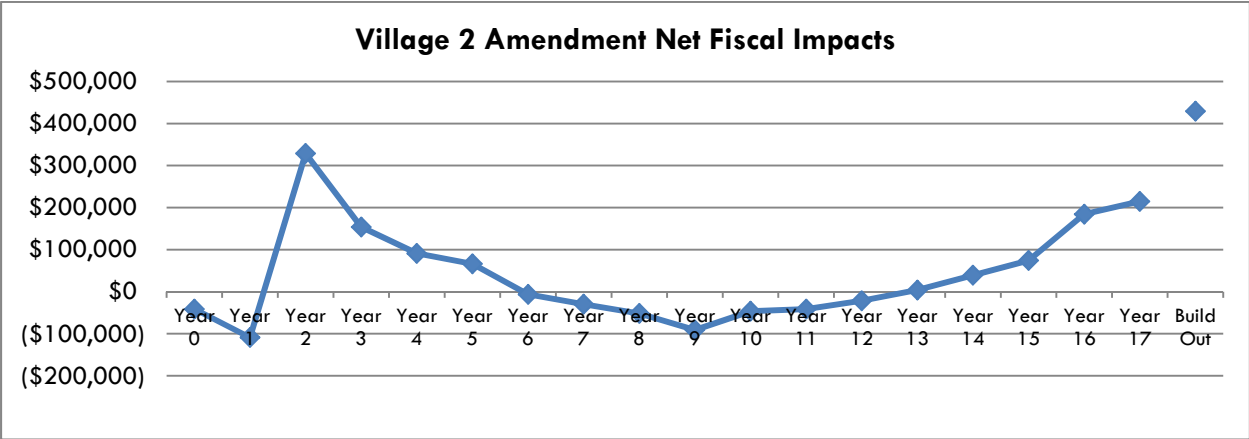
The following fiscal impact analysis evaluates the net fiscal impact of the Village 2 Comprehensive SPA Amendment (“Village 2 Amendment”) between 2014 and build out (“Future Build Out”), if and when it occurs, and reviews the annual net fiscal impact of the approved Village 2 SPA (“Base Village 2 SPA”) across a similar period, as a point of comparison.

## Commercial Sensitivity

The commercial program absorption used for this analysis was based on a market analysis of the amount of retail and industrial land use that is supportable in Village 2. **Thus, the land use absorption estimates included in this analysis represent the optimal, market-realistic absorption of retail and industrial uses within Village 2.**

## Results

**The Village 2 Amendment is projected to generate an annual net fiscal cost to the City in eight out of the 17 years leading up to 2030, but is then expected to generate annual positive net fiscal impacts after 2025 (Year 12).** The project will generate negative annual fiscal impacts in 2014 (Year 1) and 2019 through 2025 (Year 6 - Year 12). These annual fiscal costs are due to the mix of residential units; a greater number of mid-priced multi-family units relative to higher-priced single family homes are absorbed. However, across time both multi-family and single family home prices increase which improve the net fiscal revenues and industrial and commercial retail uses are added, generating greater fiscal revenues. The project will generate positive annual fiscal impacts between 2015 and 2017 (Year 2 - Year 4) and 2026 (Year 13) through Future Build Out.



Source: HR&A

**In 2030, the Village 2 Amendment will generate approximately \$215,000 to the City of Chula Vista.** The Village 2 Amendment is expected to generate approximately \$5.8 million in annual revenues in 2030 (Year 17). With the large increment of new residential development, property taxes are the greatest source of revenues, followed by MVLF In-Lieu revenues. The Village 2 Amendment is projected to generate \$5.6 million in annual fiscal costs to the City of Chula Vista in 2030 (Year 17).

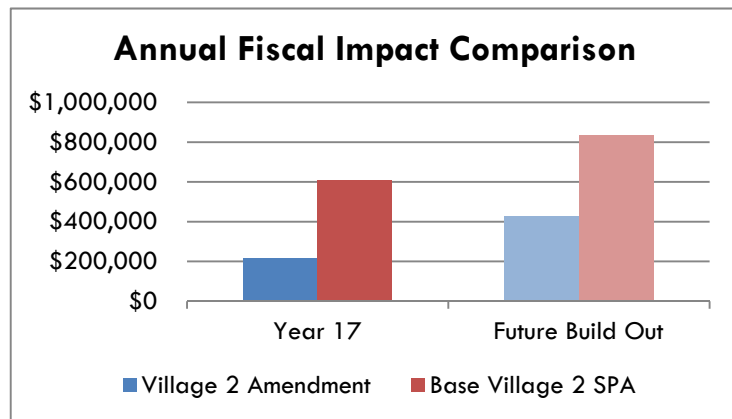
**The Base Village 2 SPA is projected to generate an annual net fiscal cost during the current year (Year 0) and a fiscal cost in Year 1, but is then expected to generate positive annual net fiscal impacts going forward.** The Base Village 2 SPA generates negative annual fiscal impacts in 2014 (Year 1) and positive annual net impacts, thereafter (Year 2 through Future Build Out). **In 2030, the annual fiscal impact is projected to be approximately \$607,000 to the City of Chula Vista.** The Base Village 2 SPA is expected to generate approximately \$4.3 million in annual revenues in 2030 (Year 17). Similar to the Village 2 Amendment scenario, property taxes are the greatest source of revenues, followed by MVLF In-Lieu revenues. The Base Village 2 SPA is projected to generate \$3.7 million in annual fiscal costs to the City of Chula Vista in 2030 (Year 17).

**Conclusions**

Overall, the Base Village 2 SPA generates greater positive net fiscal impacts to the City of Chula Vista relative to the Village 2 Amendment.

With a greater number of total residential units, the Village 2 Amendment generates greater annual fiscal revenues relative to the Base Village 2 SPA, but also generates higher annual fiscal costs in terms of public safety and costs driven by population. At Future Build Out, if and

when it occurs, the Village 2 Amendment will generate \$429,000 in annual fiscal revenues to the City of Chula Vista, compared to \$835,000 generated by the Base Village 2.



**Between 2014 and 2030, the Village 2 Amendment generates net fiscal impact of +\$560,000 in present value at a discount rate of 4 percent.** During that same period, the Base Village 2 SPA generates a net fiscal impact of +\$3.7 million in present value at a discount rate of 4 percent.

**Figure 1: Village 2 Amendment - Net Fiscal Impact Summary**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
2014 Dollar Inflation Factor	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069
Total Expenditures	\$762,848	\$1,296,660	\$1,648,457	\$2,033,234	\$2,530,553	\$3,027,872	\$3,495,883	\$3,839,754	\$4,183,626	\$4,559,057	\$4,803,440	\$4,991,381	\$5,128,451	\$5,265,520	\$5,402,590	\$5,551,957	\$5,560,474	\$5,560,474	\$5,688,890
Total Revenues	\$721,560	\$1,187,790	\$1,977,230	\$2,187,104	\$2,621,626	\$3,094,067	\$3,489,629	\$3,810,038	\$4,131,777	\$4,468,073	\$4,756,963	\$4,949,765	\$5,106,870	\$5,269,417	\$5,441,759	\$5,626,089	\$5,744,845	\$5,775,210	\$6,118,040
<b>Net Fiscal Impacts (2014 Dollars)</b>	<b>(\$41,288)</b>	<b>(\$108,870)</b>	<b>\$328,773</b>	<b>\$153,870</b>	<b>\$91,073</b>	<b>\$66,195</b>	<b>(\$6,254)</b>	<b>(\$29,716)</b>	<b>(\$51,849)</b>	<b>(\$90,984)</b>	<b>(\$46,477)</b>	<b>(\$41,616)</b>	<b>(\$21,580)</b>	<b>\$3,897</b>	<b>\$39,168</b>	<b>\$74,132</b>	<b>\$184,370</b>	<b>\$214,735</b>	<b>\$429,149</b>

Source: HR&A

**Figure 2: Base Village 2 SPA - Net Fiscal Impact Summary**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
2014 Dollar Inflation Factor	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069
Total Expenditures	\$758,472	\$1,292,258	\$1,644,080	\$2,028,630	\$2,526,254	\$3,045,961	\$3,545,558	\$3,647,475	\$3,655,989	\$3,664,502	\$3,673,015	\$3,681,528	\$3,690,042	\$3,698,555	\$3,707,068	\$3,715,582	\$3,724,095	\$3,724,095	\$3,930,395
Total Revenues	\$721,559	\$1,211,827	\$2,016,705	\$2,243,847	\$2,697,306	\$3,188,471	\$3,669,336	\$3,925,074	\$3,935,621	\$3,954,345	\$3,992,759	\$4,034,199	\$4,078,525	\$4,125,615	\$4,175,361	\$4,227,669	\$4,282,458	\$4,330,608	\$4,763,068
<b>Net Fiscal Impacts (2014 Dollars)</b>	<b>(\$36,912)</b>	<b>(\$80,431)</b>	<b>\$372,625</b>	<b>\$215,217</b>	<b>\$171,052</b>	<b>\$142,510</b>	<b>\$123,778</b>	<b>\$277,599</b>	<b>\$279,632</b>	<b>\$289,843</b>	<b>\$319,743</b>	<b>\$352,670</b>	<b>\$388,483</b>	<b>\$427,060</b>	<b>\$468,293</b>	<b>\$512,088</b>	<b>\$558,363</b>	<b>\$606,513</b>	<b>\$832,672</b>

Source: HR&A

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# Introduction

Baldwin & Sons (“Developer”) is currently preparing an amendment that proposes land use changes in the Otoy Ranch Village 2 SPA Plan and will impact surrounding villages.

As part of the City of Chula Vista’s SPA amendment protocol, the City of Chula Vista (City) has requested an updated fiscal impact analysis (FIA), in addition to a Supplemental Environmental Impact Report and a Public Facilities Financing Plan (PFFP). The City is interested in encouraging and supporting balanced development that benefits the residents and economy of Chula Vista and is considering developing land use triggers or other development requirements as part of the PFFP and FIA. The City retained HR&A Advisors, Inc. (HR&A), an experienced fiscal consultant, to prepare a fiscal impact analysis of the proposed amendment as well as a market demand analysis of industrial and retail commercial uses to support the fiscal impact analysis.

The Village 2 Comprehensive SPA Plan Amendment analysis includes two analysis elements, a market demand analysis and fiscal impact analysis. The market analysis evaluates the existing supply of industrial and retail commercial uses within Otoy Ranch and compares it to projected demand for the industrial and retail uses. This analysis was used to prepare market-driven projected absorption estimates for industrial and retail uses within Village 2.

***The market analysis report has been prepared under separate cover. This deliverable represents the fiscal impact analysis report.***

The following fiscal impact analysis evaluates the net fiscal impact of the Village 2 Comprehensive SPA Amendment (“Village 2 Amendment”) between 2014 and build out and reviews the annual net fiscal impact of the approved Village 2 SPA (“Base Village 2 SPA”) across a similar period as a point of comparison.

For the purposes of this analysis, net fiscal impacts refer to the fiscal revenues of the SPA less the fiscal costs generated by the SPA. A positive net fiscal impact means that the SPA’s fiscal revenues exceeds the costs generated as a result of the SPA. The amount of the Village 2 Amendment’s net fiscal impact above or below the Base Village 2 SPA’s net fiscal impact is the **opportunity cost** generated as a result of the amendment.

**Figure 3: Map of Village 2**



Source: Bing Mapping Service and Dudek  
HR&A Advisors, Inc.

# Project

Village 2 is envisioned as an urban village in the Otay Ranch GDP and is planned for transit-oriented development with higher densities and mixed uses in the village core. Village 2 will be served in the future by Bus Rapid Transit (BRT) and will have a transit station along the village core. Village 2 is approximately 800 acres and is located along the western edge of the Otay Valley Parcel, south of Olympic Parkway and west of La Media Road. Village 2 is currently entitled for development of 2,983 dwelling units in the Montecito SPA, 674 single-family units and 2,309 multi-family dwelling units. At the time of this analysis, approximately 681 of these Village 2 residential units have already been constructed and sold/occupied<sup>1</sup>.

The Village 2 Amendment increases densities in and around the village core and adjusts the mix of single-family and multi-family units. The Village 2 Amendment proposes 1,562 additional residential units, an 11.9-acre reduction in industrial uses, 6.3 additional acres of community purpose facilities (CPF), 12.2 additional acres of parkland, and a second elementary school in Village 2. The Base Village 2 SPA includes 33.1 acres of land for future development<sup>2</sup>; the proposed Village 2 Amendment utilizes all but 4 acres.

**Figure 4: Village 2 Proposed SPA Land Use Plan**



Source: Dudek and Developer

<sup>1</sup> HR&A reviewed San Diego County Assessor's Data as available in the CoreLogic's Property database. Given a lag in the availability of recent sales data, the actual amount of sold units may differ. Please note we include rental units that are reported as constructed as occupied units.

<sup>2</sup> For purposes of this analysis, future developed acres are included as open space in the Future Build Out period. HR&A Advisors, Inc.

The project requires amendments to the City of Chula Vista General Plan, the Otay Ranch General Development Plan, and the Village of Montecito & Otay Ranch Business Park Sectional Planning Area (SPA) plan for Villages 2, 3, and a portion of 4, as well as four new tentative maps.

It should be noted that the Developer currently controls approximately 60 percent of total dwelling units entitled within Village 2. 1,110 of the approved Village 2 residential units are under controlled by others. The FIA evaluates all approved and proposed units within Village 2.

### **Land Use Program**

Figure 5, on the next page, presents the land use program for the Base Village 2 SPA and the proposed Village 2 Amendment.

Figure 5 presents the single-family and multi-family units owned by the Developer and other developers. An estimate of the amount of multi-family units that will be rental was provided by the Developer for their proposed Village 2 Amendment residential units, approximately 44 percent, and the existing rental units were used to estimate the balance of properties under other ownership. Overall, approximately 45 percent of units are anticipated as rentals. The distribution of approved Base Village 2 SPA multi-family units between rental and for-sale units is estimated at 35 percent rental and 65 percent for-sale.

The FIA assumes that approximately 130,000 square feet of retail commercial will be developed on the MU1-MU3 and C-1 properties. HR&A estimates that approximately 30,000 square feet will be developed within a mixed-use development and the remaining 100,000 square feet will be developed within a non-mixed use shopping center configuration.

### **Population and Employment**

Figure 5 also presents estimated population and employment. Population projections are based on the City of Chula Vista provided population per household estimate of 3.24 for both single-family and multi-family units.

Employees per acre are estimated based on industry benchmarks of square feet per employee and the average floor-to-area ratio for similar product in Chula Vista, shown in Appendix Table 3.



**Figure 5: Village 2 Land Use Program Scenarios**

Land Use	Base Village 2		Amended Village 2	
	SPA		SPA	
Single Family Residential Units	674	(159.8 Ac.)	604	(120.7 Ac.)
<i>Baldwin &amp; Sons (B&amp;S) Product</i>	451	(112.1 Ac.)	381	(73.0 Ac.)
<i>Other Developers</i>	223	(47.7 Ac.)*	223	(47.7 Ac.)*
Multi-Family Residential Units	2,309	(174.3 Ac.)	3,941	(225.40 Ac.)
<i>B &amp; S MF - For Sale</i>	1,042	(86.8 Ac.)	1,711	(109.0 Ac.)
<i>B&amp;S MF - Rental</i>	320	(23.6 Ac.)	930.0	(38.5 Ac.)
<i>B &amp; S Mixed Use (Rental)</i>	60	(8.5 Ac.)	413	(22.5 Ac.)
<i>Other Developer - MF For Sale</i>	461	(39.2 Ac.)*	461	(39.2 Ac.)*
<i>Other Developer Rental</i>	426	(16.2 Ac.)*	426	(16.2 Ac.)*
Industrial Acres	94.40		82.50	
Mixed Use and Commercial SF	130,000		130,000	
<i>Mixed Use Retail SF ( MU1- MU3)</i>	30,000		30,000	
<i>Shopping Center Retail SF</i>	100,000	(12.5 Ac.)	100,000	
Park Acres <sup>1</sup>	58.7		70.9	
<i>Park Acres Attributable to Other Villages</i>	31.6		31.6	
<i>Park in Lieu Fee Acres</i>	0.0		0.262	
<i>Park Acres Attributed to Village 2</i>	27.1		39.0	
CPF	6.30		12.6	
School	10.3		19.8	
Public Safety	0.0		0.0	
<b>Subtotal Developed Acres<sup>2</sup></b>	<b>469.8</b>		<b>485.4</b>	
Open Space	204.6		212.9	
Other Acres/ROW	59.5		63.5	
Future Development Acres <sup>3</sup>	31.9		4.0	
<b>Total Acres</b>	<b>765.8</b>		<b>765.8</b>	
<b>Population</b>				
Single Family Persons/DU@	3.24	2,184	1,957	
Multi Family Persons/DU@	3.24	7,481	12,769	
<b>Total Est. Population</b>		<b>9,665</b>	<b>14,726</b>	
<b>Employment</b>	Emploees Per Unit			
Retail SF/Emp	400 Per SF	325	325	
General Industrial	12.3 Per Ac.	466	408	
Research/Limited Industrial	20.9 Per Ac.	1,184	1,035	
<b>Total Est. Employment</b>		<b>1,976</b>	<b>1,768</b>	

<sup>1</sup> Park acres include 46.5 acres of park requirement that will be satisfied in Village 4.

<sup>2</sup> Excludes the park acres that will be satisfied in Village 4.

<sup>3</sup> Evaluated as Open Space for purposes of this analysis.

\*Other developers hold 1,110 dwelling units. The Developer estimated the distribution of acres based on existing units.

Source: Developers and HR&A

## Projected Absorption Schedule

The projected absorption schedule is shown in Figure 6 and Figure 7. The fiscal analysis presents an annual absorption period for new land uses between 2014 and 2030, 17 years. Neither land use scenario is expected to be fully absorbed during this period. Thus, we include an estimate of the fiscal impacts of each scenario at build out, if and when that may occur (“Future Build Out”).

Village 2 is partially developed with residential units. To date, there has been no development of non-residential uses. The Developer estimates that 900 units have been constructed or are currently under construction, but for analysis purposes, the FIA includes units fully constructed and sold/occupied<sup>3</sup>. Based on information from the San Diego County Assessor, the fiscal impact analysis includes approximately 680 constructed and sold/occupied<sup>4</sup> residential units in Year 0.

The development absorption schedule for projected new residential units was developed based on input from the Developer for the absorption of their for-sale residential units, review of historical residential absorption in Chula Vista, and planned unit information from the City of Chula Vista’s Growth Management report. Year 1 absorption was increased to account for the number of existing residential units that may not have been reported as sold, but are near the end of construction.

Commercial and industrial absorption was estimated based on HR&A’s findings from the market report. Using the high absorption scenario from the Village 2 Market Analysis, we estimate that approximately 3 acres of industrial can be absorbed a year, starting in 2016. Commercial retail land uses, both mixed use and shopping center retail, are dependent on residential spending and are, thus, absorbed in line with residential development. Given the greater number of total residential units, we estimate that the Village 2 Amendment can support additional retail square feet relative to the Base Village 2 SPA. The Village 2 Amendment can support approximately 80,000 square feet between 2014 and 2018, 40,000 square feet between 2019 and 2023, and 20,000 square feet between 2024 and 2028. With less residents to spend in the area, the Base Village 2 SPA supports approximately 80,000 square feet between 2014 and 2018, and only 15,000 square feet between 2019 and 2023.

School acres are projected to be absorbed in 2019, Year 6. This represents a midpoint of residential development in Village 2. Up to nine acres of the community purpose facilities (CPF) space is absorbed when 80 percent of units are absorbed in each scenario with the balance in the Future Build Out period. Parks are expected to be absorbed in line with residential development<sup>5</sup>. Open Space, and right of way (ROW), are expected to be absorbed in line with the development of all uses.

Actual construction and absorption is likely to occur as infrastructure is developed on the site. The actual absorption of land uses may occur earlier or later than analyzed in this study, depending on economic factors.

### *Village 2 Amendment Absorption*

In line with the Developer’s projections, new single family units are expected to be absorbed between 2014 and 2019 (Year 1 and Year 6). New for-sale multi-family units are expected to be absorbed over a 10 year period, from 2014 (Year 1) to 2023 (Year 10). The development of the new multi-family rentals is expected to extend over a longer 15 year period, 2014 to 2028 (Year 1 – Year 15) with greater absorption after Year 9.

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<sup>3</sup> Property taxes can be applied to units under construction, but it is difficult to get a correct accounting of this value. The SPA Fiscal Impact Framework accounts for units as they are sold.

<sup>4</sup> For purposes of this analysis, rental units reported as fully constructed are assumed to be occupied.

<sup>5</sup> It should be noted the model only includes the impacts for park acres attributable to Village 2. Park acres attributable to other villages or acres accounted for by an in lie fee are excluded from the analysis.

Based on the anticipated annual industrial absorption, the industrial acres will not be fully absorbed by 2030. 40.5 acres of industrial (and a commensurate share of Open Space and ROW) will remain to be developed after 2030.

*Base Village 2 SPA Absorption*

For analysis purposes, the annual absorption of the Base Village 2 SPA is similar to the Village 2 Amendment absorption.

With a greater number than the amended program, the Base Village 2 SPA's new single family units are expected to be absorbed between 2014 and 2020 (Year 1 and Year 7).

The Base Village 2 SPA has fewer multi-family units. For-sale and rental multi-family units are expected to be absorbed over a 7-year period, from 2014 (Year 1) to 2020 (Year 7).

Again, commercial and industrial acres are expected to have a similar annual absorption in the Base Village 2 SPA scenario relative to the Village 2 Amendment. The Base Village 2 SPA supports a lower amount of retail than the Village 2 Amendment and will have a balance of 30,000 square feet after 2030. With a greater amount of industrial acres, the Base Village 2 SPA will have a balance of 52.4 acres industrial (and a commensurate share of Open Space and ROW) will remain to be developed after 2030.

**Figure 6: Village 2 Amendment Projected Cumulative Land Use Absorption**

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Future Build Out	
<b>Cumulative Land Use Program</b>																				
Single Family Residential Units	247	327	377	447	517	587	604	604	604	604	604	604	604	604	604	604	604	604	604	604
Multi-Family Residential Units	434	824	1,084	1,344	1,644	1,944	2,244	2,544	2,844	3,144	3,355	3,470	3,585	3,700	3,815	3,941	3,941	3,941	3,941	3,941
MF For Sale	111	376	576	776	996	1,216	1,436	1,656	1,876	2,076	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172
MF Rental <i>(includes Multi-Use Residential)</i>	323	448	508	568	648	728	808	888	968	1,068	1,183	1,298	1,413	1,528	1,643	1,769	1,769	1,769	1,769	1,769
Industrial Acres	0.0	0.0	0.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	42.0	42.0	82.5
Retail Commercial SF	0	0	0	0	40,000	80,000	100,000	100,000	100,000	100,000	100,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Parks	8.8	18.0	24.0	31.1	38.7	46.3	50.8	54.4	57.9	61.5	64.0	65.3	66.7	68.1	69.4	70.9	70.9	70.9	70.9	70.9
Park Acres Attributable to Village 2	4.8	9.9	13.2	17.1	21.3	25.5	28.0	29.9	31.9	33.8	35.2	36.0	36.7	37.5	38.2	39.0	39.0	39.0	39.0	39.0
CPF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	12.60
School	0.0	0.0	0.0	0.0	0.0	0.0	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
Public Safety	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Subtotal Developed Acres</b>	<b>45.7</b>	<b>94.0</b>	<b>125.2</b>	<b>165.5</b>	<b>208.2</b>	<b>251.0</b>	<b>297.4</b>	<b>319.0</b>	<b>340.5</b>	<b>371.1</b>	<b>387.1</b>	<b>397.2</b>	<b>407.3</b>	<b>417.4</b>	<b>427.5</b>	<b>438.3</b>	<b>441.3</b>	<b>441.3</b>	<b>441.3</b>	<b>485.4</b>
Open Space	20.1	41.2	54.9	72.6	91.3	110.1	130.5	139.9	149.4	162.7	169.8	174.2	178.6	183.1	187.5	192.2	193.6	193.6	193.6	212.9
Other Acres/ROW	6.0	12.3	16.4	21.7	27.2	32.8	38.9	41.7	44.5	48.5	50.6	52.0	53.3	54.6	55.9	57.3	57.7	57.7	57.7	63.5
Future Development Acres	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
<b>Total Acres</b>	<b>71.8</b>	<b>147.6</b>	<b>196.6</b>	<b>259.7</b>	<b>326.8</b>	<b>393.9</b>	<b>466.8</b>	<b>500.6</b>	<b>534.4</b>	<b>582.3</b>	<b>607.5</b>	<b>623.4</b>	<b>639.2</b>	<b>655.1</b>	<b>671.0</b>	<b>687.9</b>	<b>692.6</b>	<b>692.6</b>	<b>692.6</b>	<b>765.8</b>
<b>Cumulative Population</b>																				
Single Family Persons/DU@	3.24	800	1,059	1,221	1,448	1,675	1,902	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957
Multi Family Persons/DU@	3.24	1,406	2,670	3,512	4,355	5,327	6,299	7,271	8,243	9,215	10,187	10,870	11,243	11,615	11,988	12,361	12,769	12,769	12,769	12,769
Total Est. Population	2,206	3,729	4,734	5,803	7,002	8,200	9,228	10,200	11,172	12,144	12,827	13,200	13,572	13,945	14,318	14,726	14,726	14,726	14,726	14,726
<b>Cumulative Employment</b>																				
Retail SF/Emp@	400	0	0	0	100	200	250	250	250	250	250	325	325	325	325	325	325	325	325	325
General Industrial, Emp/Acre	12	0	0	15	30	44	59	74	89	104	119	133	148	163	178	193	207	207	207	408
Research/Limited Ind., Emp/Acre	21	0	0	38	75	113	151	188	226	263	301	339	376	414	452	489	527	527	527	1,035
Total Est. Employment	0	0	0	52	205	357	460	512	565	617	670	797	850	902	954	1,007	1,059	1,059	1,059	1,768

Source: Developers, HR&A

**Figure 7: Base Village 2 SPA Projected Cumulative Land Use Absorption**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future		
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build	
																			Out	
<b>Cumulative Land Use Program</b>																				
Single Family Residential Units	247	327	377	447	517	587	657	674	674	674	674	674	674	674	674	674	674	674	674	674
Multi-Family Residential Units	434	824	1,084	1,344	1,644	1,944	2,244	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309
MF For Sale	111	376	576	776	996	1,216	1,436	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498
MF Rental <i>(includes Multi-Use Residential)</i>	323	448	508	568	648	728	808	811	811	811	811	811	811	811	811	811	811	811	811	811
Industrial Acres	0.0	0.0	0.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	42.0	42.0	94.4
Retail Commercial SF	0	0	0	0	40,000	80,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	130,000
Parks	7.5	17.6	24.2	31.9	40.2	48.5	56.8	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
<i>Park Acres Attributable to Village 2</i>	3.5	8.1	11.2	14.7	18.6	22.4	26.2	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1
CPF	0.00	0.00	0.00	0.00	0.00	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
School	0.0	0.0	0.0	0.0	0.0	0.0	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
Public Safety	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Subtotal Developed Acres</i>	44.3	104.1	142.9	191.4	247.1	309.2	373.3	387.5	390.5	393.5	396.5	399.5	402.5	405.5	408.5	411.5	414.5	414.5	414.5	469.8
Open Space	19.3	45.3	62.2	83.4	107.6	134.6	162.6	168.8	170.1	171.4	172.7	174.0	175.3	176.6	177.9	179.2	180.5	180.5	180.5	204.6
Other Acres/ROW	5.6	13.2	18.1	24.2	31.3	39.2	47.3	49.1	49.5	49.8	50.2	50.6	51.0	51.4	51.7	52.1	52.5	52.5	52.5	59.5
Future Development Acres	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.9
<b>Total Acres</b>	69.2	162.6	223.2	299.0	386.1	483.0	583.1	605.4	610.0	614.7	619.4	624.1	628.8	633.5	638.2	642.9	647.5	647.5	647.5	765.8
<b>Cumulative Population</b>																				
Single Family Persons/DU@	3.24	800	1,059	1,221	1,448	1,675	1,902	2,129	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184
Multi Family Persons/DU@	3.24	1,406	2,670	3,512	4,355	5,327	6,299	7,271	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481
Total Est. Population	2,206	3,729	4,734	5,803	7,002	8,200	9,399	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665
<b>Cumulative Employment</b>																				
Retail SF/Emp@	400	0	0	0	100	200	250	250	250	250	250	250	250	250	250	250	250	250	250	325
General Industrial, Emp/Acre	12	0	0	0	15	30	44	59	74	89	104	119	133	148	163	178	193	207	207	466
Research Industrial, Emp/Acre	21	0	0	0	38	75	113	151	188	226	263	301	339	376	414	452	489	527	527	1,184
Total Est. Employment		0	0	0	52	205	357	460	512	565	617	670	722	775	827	879	932	984	984	1,976

Source: Developers, HR&A

# Methodology

This analysis evaluates the net fiscal impacts to the City of Chula Vista of developing the Village 2 Amendment land use program, and compares these impacts to the net fiscal impacts of the currently approved Base Village 2 SPA. Net fiscal impacts represent total fiscal revenues to the City of Chula Vista less fiscal costs.

The City of Chula Vista’s SPA Fiscal Impact Framework is used to estimate the net fiscal impacts. As prescribed in the SPA Fiscal Impact Framework, HR&A uses historical City of Chula Vista revenue and expenditure factors from the SPA Fiscal Impact Framework to estimate fiscal revenues and expenditures that are expected to grow proportionally with new development. Special analysis models are used to estimate revenues, such as property tax revenues, motor vehicle license fee (MVLFF) in lieu revenues, and sales taxes that may not grow proportionately with new development.

The detailed methodology of the SPA Fiscal Impact Framework is described in the memorandum “SPA Fiscal Analysis –Fiscal Model Methodology Including the Development of Fiscal Factors in the Analysis of SPA Proposals”, dated February 2008. The following methodology section highlights key inputs and updates made to the methodology for the Village 2 fiscal impact analysis.

## Budget and Revenue Factors

The budget revenue and expenditure factors provided by the City are based on the FY 2009 City of Chula Vista budget. Adjustments have been made to these budget factors to provide a more accurate accounting of future impacts, including: (1) an expenditure and revenue adjustment to account for appropriate service standards, (2) an adjustment to Utility Users Tax, (3) a retail expenditure density adjustment and (4) a 2014 dollar adjustment.

### Service Standard Adjustment (Real Inflation Adjustment)

Due to the 2007 recession, the City of Chula Vista implemented several rounds of budget reduction between FY 2007 and FY 2009, cutting the City’s service standard below the desired level. The expenditure and revenue adjustment factors use a 5-year average of inflation-adjusted per capita revenue and expenditures to determine an appropriate level of future expenditures and revenues.

### Utility User’s Tax Adjustment

Utility User’s Tax receipts have been adjusted to account for a reduction in the wireless service rate from 4.75 percent to 5 percent, effective March 1, 2014. Based on information provided by the City of Chula Vista, wireless services are estimated at 55 percent of total utilities and are expected to be reduced by 4 percent annually based on reduced demand for taxable services. The allocation for Utility User’s Tax Revenue, found in the Discretionary Revenue Allocation Tables, was revised to account for this reduction in tax receipts.

**Figure 8: Utility Users' Tax Adjustment**

<b>Revenue Category</b>	<b>FY 2009 Amended Budget Figure</b>	<b>Adjusted Utility User’s Tax Citywide Allocation</b>
Utility User’s Tax	\$7,122,095	\$6,777,386

Source: City of Chula Vista, SPA Fiscal Framework

### Retail Expenditure Density Factor

Retail expenditure factors were developed based on historical citywide acres and account for a historical citywide floor-to-area (FAR) ratio. Based on the citywide FAR, a factor is determined that translates the retail expenditure budget factor from acres of land area into square feet of building area.

**Figure 9: Retail Expenditure Factor Density Adjustment**

<b>Land Use</b>	<b>Citywide Density</b>	<b>Acres to SF Density Factor</b>
Retail	0.28 FAR	0.00008

Source: City of Chula Vista, SPA Fiscal Framework

### 2014 Dollar Adjustment

Finally, given that the FIA is based on FY 2009 budget, the inflation adjustment adjusts final total revenues and expenditures from 2009 dollars to 2014 dollars using the San Diego County CPI inflation factors. This adjustment is made in the final net fiscal impacts summary table.

### **Revenue Calculation Methodology**

Special models are used to estimate fiscal impacts for property taxes, property transfer taxes, MVLF in-lieu fees, sales tax. Special models were built based on the SPA Fiscal Framework with updated tax rates, as appropriate, and assessed value and household income inputs.

Other discretionary revenues, not estimated using special models, are estimated based on historical pro rata factors.

### Assessed Values and Property Taxes

The incremental assessed value attributable to the Village 2 Amendment and Base Village 2 SPA is used to estimate property taxes, property transfer taxes, and MVLF in-lieu fees. As described below, HR&A reviewed current residential and commercial market data to determine appropriate assessed values.

### *Existing Residential Units*

Village 2 is partially developed and several residential subdivisions are currently under construction and sales. HR&A identified the property values of existing, sold single family homes using San Diego County Assessor's data via CoreLogic, a national property data provider. Figure 10 presents HR&A's estimate of currently developed property within Village 2.

**Figure 10: Existing Residential Property Units and Value**

<b>Existing Residential</b>	<b>Sold/Rental</b>	<b>No. of Residential Units</b>	<b>Estimated Developed Acres<sup>1</sup></b>	<b>Estimated Assessed Value<sup>2</sup></b>
Single Family	Sold Units	247	19.76	\$92,335,671
Condos	Sold Units	111	5.52	\$30,993,043
Apartments	Rentals	323	17.44	\$50,001,475
<b>Total</b>		<b>681</b>	<b>42.7</b>	<b>\$173,330,189</b>

<sup>1</sup>Lot acreage was not available for all single family units. Average lot size of 0.8 acres was used to estimate for units missing lot acreage.

<sup>2</sup>Sold units included properties that reported a sales price, but where the reported assessed values had not yet been adjusted to the full sales price. As appropriate, HR&A adjusted total assessed value to account for the full sales price.

Source: Core Logic and HR&A

#### *Single-Family Assessed Value*

To estimate the average price of new single family homes, HR&A reviewed sales prices for homes currently for sale in Otay Ranch, as reported by Meyers Research. Average prices were reviewed by quarter in 2013 and were then weighted by the number of sales that occurred in each quarter and in each development to determine an average sales price for Otay Ranch in 2013. Detail on these sales are shown in Figure 11.

Based on our analysis, the FIA uses an average single family home price of \$465,000 for Village 2.

#### *Multi-Family Assessed Value*

Village 2 will include a significant component of multi-family housing, both for-sale and rental, in both scenarios. Assessed values of the for-sale multi-family units were estimated through a review of sales prices using a similar approach as in the analysis for single-family homes. Given the limited number of sales within Otay Ranch, HR&A also reviewed comparable multi-family sales elsewhere in Chula Vista in order to estimate the appropriate price point for Village 2. While the limited developments in Otay Ranch had sales prices averaging at approximately \$300,000 per unit, other Chula Vista projects comparable in quality to Village 2 demonstrated average sales prices between \$320,000 and \$330,000 during the latter half of 2013. Based on our analysis, the FIA uses an average multi-family home price of \$305,000 for Village 2. Detail on these sales comparables are presented in Figure 12.

Rental units' assessed value is based on a market capitalization approach. The value of the rental units was derived by first estimating an average rent of \$1,950 per unit, based on an average of 21 apartment and townhouse rental listings as shown in Figure 13. Based on typical operating assumptions and a market scan of multi-family real estate in suburban San Diego County, a vacancy rate of 5 percent, a gross expense estimate of 30 percent, and a capitalization rate of 5.5 percent were applied to convert this monthly rent to an assessed value of \$280,000. Detail on the determination of the assessed value for rental units is included Appendix Table 4.



**Figure 11: Sales of Single Family Homes in Otay Ranch, 2013**

	Q1		Q2		Q3		Q4		Overall	
	# of Sales	Average Price	# of Sales	Average Price	# of Sales	Average Price	# of Sales	Average Price	# of Sales	Average Price
Otay Ranch										
Anacapa			2	\$422,500					2	\$422,500
Bacara							10	\$420,900	10	\$420,900
Casitas de Avila	4	\$344,400							4	\$344,400
Corta Bella			9	\$428,425	7	\$454,400	7	\$465,650	23	\$447,660
Monte Sereno			4	\$569,900					4	\$569,900
Presidio V7			6	\$488,400	1	\$502,500			7	\$490,414
Santa Rita V2 R8			3	\$501,900	10	\$507,900	12	\$517,400	25	\$511,740
Terraza I V7			5	\$427,400					5	\$427,400
Terraza II V2			10	\$427,400					10	\$427,400
<i>Otay Ranch- Overall, Weighted</i>	4	\$344,400	39	\$457,116	18	\$486,794	29	\$471,633	90	\$462,720

Source: Meyer’s Research and HR&A

**Figure 12: Sales of Multifamily Units in Chula Vista, 2013**

	Q1		Q2		Q3		Q4		Overall	
	# of Sales	Average Price	# of Sales	Average Price	# of Sales	Average Price	# of Sales	Average Price	# of Sales	Average Price
Otay Ranch										
Avalon	17	\$255,900	12	\$284,900	8	\$307,900	14	\$310,400	51	\$285,841
Villas de Avila	10	\$311,400							10	\$311,400
Other Chula Vista Communities										
Mosaic	22	\$259,945	21	\$296,400	10	\$311,400	8	\$313,900	61	\$288,006
Veranza	14	\$294,490	10	\$300,490	16	\$350,990	7	\$341,990	47	\$322,075

Source: Meyer’s Research and HR&A

**Figure 13: Listings for Apartment and Townhouse Rentals in Otay Ranch, March 2013**

Address	Type	Rent	SF	Rent/SF
1575 Rose Garden Ln	Townhouse	\$1,900	1,134	\$1.68
1460 Levant Ln, 1	Apartment	\$1,650	1,008	\$1.64
1460 Levant Ln, 6	Apartment	\$1,750	1,008	\$1.74
1863 Hazel Ct, Unit 11	Apartment	\$2,095	1,565	\$1.34
1810 Calvedos Dr	Townhouse	\$1,750	1,060	\$1.65
1480 Burgundy Dr	Townhouse	\$2,000	1,429	\$1.40
1484 Canvas Dr, Unit 5	Apartment	\$1,895	1,372	\$1.38
2144 Big Horn Dr, Unit 253	Townhouse	\$1,900	1,396	\$1.36
1476 Levant Ln	Townhouse	\$1,650	1,008	\$1.64
1894 Lorient Pl, 2524	Apartment	\$1,575	975	\$1.62
1894 Lorient Pl, 724	Apartment	\$1,650	975	\$1.69
1894 Lorient Pl, 1011	Apartment	\$1,875	1,315	\$1.43
1894 Lorient Pl, 1736	Apartment	\$1,995	1,315	\$1.52
	Apartment	\$1,695	1,008	\$1.68
1828 Olive Green St, Unit 7	Apartment	\$2,099	1,604	\$1.31
1737 Cripple Creek Dr, Unit 2	Apartment	\$2,250	1,728	\$1.30
2166 Nopalito Dr, Unit 69	Apartment	\$2,100	1,695	\$1.24
1884 Aquamarine Ct, Unit 10	Apartment	\$1,850	1,500	\$1.23
1670 Roadrunner Ct, Unit 258	Apartment	\$1,950	1,395	\$1.40
1627 Cliff Rose Dr, Unit 151	Apartment	\$2,195	1,561	\$1.41
1875 Cannes Pl	Apartment	\$2,040	1,400	\$1.46
<i>Otay Ranch- Overall, Weighted</i>		\$1,935	1,307	\$1.48

Source: Zillow.com and HR&A

**Retail Assessed Value**

The capitalized value approach was used to estimate the market value of retail properties as shown in Appendix Table 4. The average rental rate for shopping center retail in the Eastlake retail submarket is approximately \$1.68 per gross leasable square foot, triple net, according to CoStar. This average includes a variety of retail types. CoStar lists approximately ten retail properties in east Chula Vista currently for lease with rates, as shown in Figure 14.

The mixed use commercial is most likely to be similar to mixed use retail such as Heritage Town Center at 1392 E. Palomar Street. For the mixed-use retail in Village 2, HR&A uses an average retail lease rent of \$1.85 per square foot, and a cap rate for a Class B to Class C product based on the CBRE's First Half of 2013 Capitalization Rate Survey.

For the shopping center retail, HR&A uses an average retail lease rate of \$2.25 per square foot.



Heritage Town Center Mixed Use Retail

The capitalized value approach, as shown in Appendix Table 4, provides an assessed value of approximately \$190.00 per square foot of building square foot for the mixed use retail uses and an assessed value of approximately \$230.00 per square foot for the shopping center retail.

**Figure 14: East Chula Vista Retail Properties Currently For Lease**

Building Name	Building Address	Property Type	Rentable Building		Percent Leased	Average Monthly Weighted Rent
			Area	Year Built		
The Marketplace at Windingwalk	2110 Birch Rd	Community Center	8,686	2008	26.87	\$2.25
	1741 Eastlake Pky	Community Center	10,387	2008	62.74	\$2.25
	1745 Eastlake Pky	Community Center	106,000	2008	96.12	\$2.25
Heritage Town Center	2315 Otay Lakes Rd	Neighborhood Center	8,400	2004	82.9	\$3.50
	1392 E Palomar St	Mixed Use Retail	38,000	2003	93.61	\$1.95
	2318 Proctor Valley Rd	Neighborhood Center	12,109	2007	69.5	\$2.00
	2322 Proctor Valley Rd	Neighborhood Center	11,896	2007	57.91	\$2.00
	851-881 Showroom Pl	Community Center	162,967	2006	85.47	\$1.81
	891 Showroom Pl	Community Center	14,542	2006	87.19	\$2.45
<b>Average</b>					<b>73.59</b>	<b>\$2.27</b>

Source: CoStar and HR&A

*Industrial Assessed Value*

The capitalized value approach was used to estimate the market value of industrial properties as shown in Appendix Table 4. HR&A reviewed current general industrial and industrial flex rental rates of available properties in the Otay Ranch/Chula Vista area to support projected prices in Village 2, as shown in Figure 15.

The monthly average lease rate for general industrial in the Otay Ranch area is \$0.58 per square foot. For the FIA, HR&A uses an average industrial lease rate of \$0.60 per square foot for general retail.

The monthly average lease rate for industrial flex space in the Otay Ranch area is \$0.97 per square foot. For the FIA, HR&A uses an average industrial lease rate of \$0.95 per square foot for research/limited industrial.

The capitalized value approach, as shown in Appendix Table 4, provides an assessed value of approximately \$1.0 million per acre for general industrial uses and an assessed value of approximately \$1.7 million per acre for research/limited industrial.

**Figure 15: Industrial Properties Currently for Lease**

Building Address	Bldg Size	Year Built	Lease Rate Type	Monthly Lease Rate/SF
<b>General Industrial</b>				
1710 Dornoch Court	86,592	1987	Industrial Gross	\$0.55
2515 Britannia Boulevard	39,569	2002	Industrial Gross	\$0.60
8578 & 8620 Avenida Costa Blanca	24,705	2002	Industrial Gross	\$0.60
<b>General Industrial Average</b>				<b>\$0.58</b>
<b>Industrial/Flex</b>				
821 Kuhn Drive	50,081	2004	Triple Net	\$1.25
8580 Avenida de la Fuente	31,695	2004	Industrial Gross	\$0.90
3441 Main Street	20,158	2004	Industrial Gross	\$0.88
3451 Main Street	86,831	2004	Industrial Gross	\$0.85
<b>Industrial Flex Average</b>				<b>\$0.97</b>

Source: CoStar, Loopnet, and HR&A

*Property Tax Rate*

Village 2 falls in San Diego County Tax Rate Area 01265. The City of Chula Vista captures 10.636% of the 1 percent property tax.

Transfer taxes were assessed at \$0.55 per \$1,000 of assessed value, according to the City of Chula Vista rate.

*VLF Fees*

Until July of 2011, 0.65 percent VLF revenues were estimated based on population increases while the property taxes in-lieu of VLF fees (“MVLf In-Lieu Fees”) are based on incremental growth in assessed value.

The State of California’s Legislature passed SB89 in 2011 that eliminates 0.65% VLF payments as of July 2011. The California League of Cities filed suit to challenge the law, but the State Superior Court recently ruled against the League in March of 2012.

The 0.65% VLF fees generated based on population have been excluded from this analysis. The MVLf In-Lieu Fees are still allocated proportionally, based on incremental growth in assessed value as described in the SPA Fiscal Impact Framework.

Sales Tax

Sales taxes are estimated based on projected resident spending using the approach prescribed in the SPA Fiscal Impact Framework.

Other Discretionary Revenues

As described above, revenue factors from the SPA Fiscal Impact Framework were used to estimate revenues that are expected to grow proportionally with development. These are derived in Appendix Tables 8 and 9. These factors are summarized in Figure 16.

**Figure 16: Other Discretionary Revenues**

<b>Summary of Other Discretionary Revenue Factors</b>	
Commercial (Acres)	\$695.50
Retail Commercial (SF)	\$0.06
Industrial (Acres)	\$616.47
Residential (Acres)	\$1,302.37
Residential (DU)	\$3.60
Employees	\$19.45
Population	\$3.86

Source: City of Chula Vista and HR&A

### Expenditure Calculation Methodology

As described above, expenditure factors from the SPA Fiscal Impact Framework were used to estimate expenditures that are expected to grow proportionally with development. The factors provided by the City of Chula Vista are summarized in Figure 17.

Special models are used to estimate the allocation of public safety fiscal expenditures generated by dwelling units. The public safety expenditures allocated to dwelling units are estimated proportionally (there are no adjustments at this time), but are presented in a special model because these costs are typically a major fiscal expenditure.

**Figure 17: Expenditure Factors and Public Safety Dwelling Unit Factors**

<b>Expenditure Factors</b>	
Population (Per Resident)	\$76.53
Open Space (Acres)	\$160.43
Public Parks (Acres)	\$2,448.06
Public Use (Per Acre)	\$2,710.85
Other (Per Acre)	\$2,759.40
Dwelling Unit Factor (Not including Public Safety)	\$119.40

<b>Special Model Factors</b>	
Police (Per DU)	\$293.70
Fire (Per DU)	\$210.64

Source: City of Chula Vista and HR&A

# Fiscal Impacts

The following section describes the fiscal impacts generated by the Village 2 Amendment and the Base Village 2 SPA. Figure 18 and Figure 19 present the annual fiscal revenues and annual fiscal expenditures of each of the scenarios.

This fiscal impact analysis projects all fiscal revenues and fiscal expenditures to the City of Chula Vista as outlined in the City of Chula Vista's SPA Fiscal Impact Framework. Annual fiscal revenues are compared to annual fiscal expenditures associated with the Village 2 Amendment and Base Village 2 SPA land use plans to estimate the net fiscal impact of each scenario. The difference between the Base Village 2 SPA net fiscal impact and the Village 2 Amendment's net fiscal impacts is the opportunity cost of the Village 2 Amendment.

The figures in this table have been adjusted to reflect 2014 dollars. The detailed analysis is included within the Appendix.

## Village 2 Amendment

Figure 18 presents the annual net fiscal impacts of the proposed Village 2 Amendment.

Using the methodology described above the Village 2 Amendment is expected to generate approximately \$5.8 million in annual revenues in 2030 (Year 17). When all the industrial space is absorbed (Future Build Out), Village 2 Amendment is expected to generate annual fiscal revenues of \$6.1 million.

With the large increment of new residential development, property taxes are the greatest source of revenues, followed by MVLF In-Lieu revenues. In 2030, property taxes and property transfer taxes combine to generate an estimated \$2.4 million in annual fiscal receipts. MVLF In-Lieu Fees are also based on growth in assessed value and are expected to generate approximately \$1.7 million in annual fiscal receipts in 2030. Together, property-based taxes and MVLF In Lieu fees make up approximately 70 percent of anticipated revenues.

The Village 2 Amendment is projected to generate \$5.6 million in annual fiscal costs to the City of Chula Vista in 2030 (Year 17). At Future Build Out, annual fiscal costs increase by \$130,000 to \$5.7 million. The greatest fiscal cost of the project will be public safety at \$3 million (55% of costs in 2030), accounting for allocations from housing units and other land uses. It should be noted that the costs driven primarily by residents, which include administrative municipal costs, culture, and leisure, and additional public safety costs, are \$1.4 million in annual fiscal costs in 2030 (Year 17), almost a quarter of the overall fiscal costs.

***The Village 2 Amendment is projected to generate an annual net fiscal cost to the City in eight out of the 17 years leading up to 2030, but is then expected to generate an ongoing annual positive net fiscal impact after 2025 (Year 12).*** There are three major inflection points for the net fiscal costs between 2014 and 2030, a net fiscal trough in Year 1, a revenue peak in Year 2 and net fiscal cost trough in Year 9. Each inflection point can be explained by the absorption of residential units and overall commercial and residential mix of the SPA. Residential units carry high fiscal costs, in terms of services required by residents. However, at a certain price point, the property taxes generated by residential units can support its higher municipal service costs. Due to the recent recession, Chula Vista home prices have not supported their municipal service costs for the last few of years, but rising prices are improving the fiscal viability of residential units, particularly for higher priced single family units. Existing development within Village 2 generates an estimated net fiscal impact of approximately -\$42,000 annually. The Year 2 net fiscal revenue peak is generated as a balanced mix of single-family and multi-family units are absorbed (and revenues are received). Between Year 3 and Year 10, a growing number of mid-priced multi-family units are absorbed generating increasing annual net fiscal costs. Annual fiscal costs become negative in Year 6 as the limited number of single family units are absorbed and the mix of residential units becomes primarily multi-family.

The negative trough in 2022, Year 9, is a combination of the residential mix and the addition of the CPF acres in this year.

Commercial retail and industrial uses are expected to be absorbed based on market demand. Industrial uses are expected to be absorbed across a 15+ year period, starting in Year 4 (2017). Beyond Year 9 (2022), industrial absorption and anticipated real growth in single family and multi-family home prices help to gradually increase the annual net fiscal revenues over costs. ***At Future Build Out, if and when it occurs, the Village 2 Amendment will generate +\$430,000 in annual fiscal revenues to the City of Chula Vista.***

**Figure 18: Village 2 Amendment Fiscal Impact**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
<i>2014 Dollar Inflation Factor</i>	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069
<b>Revenues</b>																			
Property Taxes	\$196,041	\$196,041	\$640,826	\$758,400	\$895,342	\$1,061,087	\$1,231,664	\$1,370,768	\$1,499,186	\$1,631,958	\$1,768,354	\$1,872,288	\$1,948,860	\$2,019,337	\$2,092,853	\$2,169,382	\$2,253,515	\$2,286,930	\$2,436,294
Property Transfer Taxes	\$101,897	\$101,897	\$239,271	\$89,243	\$104,969	\$126,364	\$136,361	\$127,847	\$128,242	\$136,238	\$144,157	\$133,123	\$122,949	\$122,144	\$125,945	\$129,849	\$136,248	\$112,622	\$160,856
MVLF Revenues	\$139,828	\$457,076	\$540,937	\$638,612	\$756,831	\$878,497	\$977,714	\$1,069,310	\$1,164,011	\$1,261,297	\$1,335,429	\$1,390,045	\$1,440,313	\$1,492,749	\$1,547,334	\$1,607,343	\$1,631,176	\$1,651,753	\$1,737,712
Sales and Use Tax	\$187,987	\$240,688	\$301,804	\$368,862	\$443,950	\$519,038	\$579,047	\$633,964	\$688,881	\$743,817	\$782,614	\$804,552	\$825,926	\$847,300	\$868,674	\$892,055	\$892,450	\$892,450	\$897,772
Other Revenues	\$95,807	\$192,087	\$254,392	\$331,988	\$420,534	\$509,081	\$564,843	\$608,150	\$651,457	\$694,764	\$726,409	\$749,757	\$768,822	\$787,888	\$806,953	\$827,460	\$831,456	\$831,456	\$885,405
<b>Total Annual Revenues</b>	<b>\$721,560</b>	<b>\$1,187,790</b>	<b>\$1,977,230</b>	<b>\$2,187,104</b>	<b>\$2,621,626</b>	<b>\$3,094,067</b>	<b>\$3,489,629</b>	<b>\$3,810,038</b>	<b>\$4,131,777</b>	<b>\$4,468,073</b>	<b>\$4,756,963</b>	<b>\$4,949,765</b>	<b>\$5,106,870</b>	<b>\$5,269,417</b>	<b>\$5,441,759</b>	<b>\$5,626,089</b>	<b>\$5,744,845</b>	<b>\$5,775,210</b>	<b>\$6,118,040</b>
<b>Expenditures</b>																			
Retail (SF)	\$0	\$0	\$0	\$0	\$67,827	\$135,655	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$220,439	\$220,439	\$220,439	\$220,439	\$220,439	\$220,439	\$220,439	\$220,439
Industrial (Acres)	\$0	\$0	\$0	\$8,175	\$16,349	\$24,524	\$32,699	\$40,873	\$49,048	\$57,223	\$65,397	\$73,572	\$81,747	\$89,921	\$98,096	\$106,271	\$114,445	\$114,445	\$224,803
Park (Acres)	\$14,762	\$30,357	\$40,428	\$52,453	\$65,276	\$78,099	\$85,744	\$91,728	\$97,712	\$103,695	\$107,904	\$110,198	\$112,492	\$114,786	\$117,079	\$119,593	\$119,593	\$119,593	\$119,593
Population (Persons)	\$211,303	\$357,136	\$453,324	\$555,717	\$670,522	\$785,326	\$883,686	\$976,771	\$1,069,856	\$1,162,941	\$1,228,411	\$1,264,093	\$1,299,776	\$1,335,458	\$1,371,141	\$1,410,236	\$1,410,236	\$1,410,236	\$1,410,236
Open Space (Acres)	\$5,229	\$10,753	\$14,321	\$18,923	\$23,809	\$28,694	\$34,009	\$36,472	\$38,934	\$42,426	\$44,260	\$45,416	\$46,571	\$47,727	\$48,882	\$50,116	\$50,459	\$50,459	\$56,304
Public Use (Acres)	\$0	\$0	\$0	\$0	\$0	\$0	\$67,168	\$67,168	\$67,168	\$97,699	\$97,699	\$97,699	\$97,699	\$97,699	\$97,699	\$97,699	\$97,699	\$97,699	\$109,912
Expenditures Allocated to DUs (excl. Public Safety)	\$101,757	\$171,985	\$218,306	\$267,615	\$322,902	\$378,188	\$425,555	\$470,382	\$515,208	\$560,035	\$591,563	\$608,747	\$625,930	\$643,114	\$660,297	\$679,125	\$679,125	\$679,125	\$679,125
Public Safety Costs Allocated to DUs	\$429,798	\$726,429	\$922,079	\$1,130,351	\$1,363,869	\$1,597,386	\$1,797,454	\$1,986,792	\$2,176,131	\$2,365,469	\$2,498,637	\$2,571,217	\$2,643,797	\$2,716,377	\$2,788,957	\$2,868,479	\$2,868,479	\$2,868,479	\$2,868,479
<b>Total Annual Expenditures</b>	<b>\$762,848</b>	<b>\$1,296,660</b>	<b>\$1,648,457</b>	<b>\$2,033,234</b>	<b>\$2,530,553</b>	<b>\$3,027,872</b>	<b>\$3,495,883</b>	<b>\$3,839,754</b>	<b>\$4,183,626</b>	<b>\$4,559,057</b>	<b>\$4,803,440</b>	<b>\$4,991,381</b>	<b>\$5,128,451</b>	<b>\$5,265,520</b>	<b>\$5,402,590</b>	<b>\$5,551,957</b>	<b>\$5,560,474</b>	<b>\$5,560,474</b>	<b>\$5,688,890</b>
<b>Net Fiscal Impact</b>	<b>(\$41,288)</b>	<b>(\$108,870)</b>	<b>\$328,773</b>	<b>\$153,870</b>	<b>\$91,073</b>	<b>\$66,195</b>	<b>(\$6,254)</b>	<b>(\$29,716)</b>	<b>(\$51,849)</b>	<b>(\$90,984)</b>	<b>(\$46,477)</b>	<b>(\$41,616)</b>	<b>(\$21,580)</b>	<b>\$3,897</b>	<b>\$39,168</b>	<b>\$74,132</b>	<b>\$184,370</b>	<b>\$214,735</b>	<b>\$429,149</b>

Source: HR&A



## **Base Village 2 SPA**

Figure 19 presents the annual net fiscal impacts of the approved Base Village 2 SPA.

Using the methodology described above, the Base Village 2 SPA is expected to generate approximately \$4.3 million in annual revenues in 2030 (Year 17). When all the industrial space is absorbed (Future Build Out), Village 2 Amendment is expected to generate annual fiscal revenues of \$4.8 million.

Similar to the Village 2 Amendment scenario, property taxes are the greatest source of revenues, followed by MVLF In-Lieu revenues. In 2030, property taxes and property transfer taxes combine to generate an estimated \$1.7 million in annual fiscal receipts. MVLF In-Lieu Fees are also based on growth in assessed value and are expected to generate approximately \$1.2 million in annual fiscal receipts.

The Base Village 2 SPA is projected to generate \$3.7 million in annual fiscal costs to the City of Chula Vista in 2030 (Year 17). At Future Build Out, annual fiscal costs increase by \$200,000. The greatest fiscal cost of the project will be public safety, which accounts for \$2.2 million (55% of costs in 2030), accounting for allocations from housing units and other land uses. It should be noted that the costs driven primarily by residents, which include administrative municipal costs, culture, and leisure, and additional public safety costs, are \$925,000 million in annual fiscal costs in 2030 (Year 17), almost a quarter of the overall fiscal costs.

***The Base Village 2 SPA is projected to have a current annual net fiscal cost and a fiscal cost in Year 1, but is then expected to generate positive annual net fiscal impacts. In 2030, the annual fiscal impact is projected to be approximately +\$830,000 to the City of Chula Vista.*** Similar to the net fiscal impacts of the Village 2 Amendment, there is a peak in fiscal revenues in Year 2 and a decline in net fiscal impacts for a period thereafter, again increasingly steadily from Year 6. However, annual net fiscal impacts, beyond the first two years, are strictly positive and continue to grow.

Existing development in Village 2 generates an estimated net fiscal impact of approximately -\$40,000 annually. In 2014 (Year 1), the annual net fiscal costs increase as almost 1,150 residential units and 3,700 residents are added, but property tax revenues are not received by the City until the following year. When property taxes are received for the higher priced homes sold the previous year, increased property taxes generate a net annual fiscal impact of +\$370,000. The addition of single-family and multi-family units between 2015 (Year 2) and 2019 (Year 6) decrease the net fiscal impacts, but both the mix of single-family and multi-family units yielding a lower density development compared to the Village 2 Amendment program, support positive net fiscal impacts. The lowest period of the annual net fiscal impacts is in Year 6, when most residential units have been absorbed. From Year 6 forward, the Base Village 2 SPA's net fiscal impacts generally trend upward as a result of ongoing industrial absorption and real growth in housing prices. ***At Future Build Out, if and when it occurs, the Base Village 2 SPA is expected to generate +\$830,000 in annual fiscal revenues to the City of Chula Vista.***

**Figure 19: Base Village 2 SPA Net Fiscal Impacts**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
2014 Dollar Inflation Factor	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069
<b>Revenues</b>																			
Property Taxes	\$196,041	\$196,041	\$640,526	\$757,904	\$894,626	\$1,060,041	\$1,230,144	\$1,399,743	\$1,449,194	\$1,465,483	\$1,483,652	\$1,503,601	\$1,525,246	\$1,548,511	\$1,573,327	\$1,599,638	\$1,627,392	\$1,656,545	\$1,832,547
Property Transfer Taxes	\$101,897	\$101,897	\$239,271	\$89,243	\$104,969	\$126,364	\$136,361	\$143,843	\$88,930	\$74,015	\$75,641	\$77,303	\$79,000	\$80,735	\$82,507	\$84,318	\$86,168	\$88,059	\$154,556
MVLF Revenues	\$139,828	\$456,862	\$540,583	\$638,102	\$756,085	\$877,413	\$998,381	\$1,033,653	\$1,045,271	\$1,058,230	\$1,072,459	\$1,087,898	\$1,104,491	\$1,122,192	\$1,140,959	\$1,160,754	\$1,181,548	\$1,198,655	\$1,307,083
Sales and Use Tax	\$187,987	\$240,688	\$301,804	\$368,862	\$443,950	\$519,038	\$593,750	\$610,661	\$611,055	\$611,449	\$611,843	\$612,237	\$612,632	\$613,026	\$613,420	\$613,814	\$614,209	\$614,209	\$621,658
Other Revenues	\$95,807	\$216,339	\$294,521	\$389,737	\$497,676	\$605,615	\$710,699	\$737,175	\$741,171	\$745,167	\$749,163	\$753,159	\$757,156	\$761,152	\$765,148	\$769,144	\$773,141	\$773,141	\$847,224
<b>Total Annual Revenues</b>	<b>\$721,559</b>	<b>\$1,211,827</b>	<b>\$2,016,705</b>	<b>\$2,243,847</b>	<b>\$2,697,306</b>	<b>\$3,188,471</b>	<b>\$3,669,336</b>	<b>\$3,925,074</b>	<b>\$3,935,621</b>	<b>\$3,954,345</b>	<b>\$3,992,759</b>	<b>\$4,034,199</b>	<b>\$4,078,525</b>	<b>\$4,125,615</b>	<b>\$4,175,361</b>	<b>\$4,227,669</b>	<b>\$4,282,458</b>	<b>\$4,330,608</b>	<b>\$4,763,068</b>
<b>Expenditures</b>																			
Retail (SF)	\$0	\$0	\$0	\$0	\$67,827	\$135,655	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$169,568	\$220,439
Industrial (Acres)	\$0	\$0	\$0	\$8,175	\$16,349	\$24,524	\$32,699	\$40,873	\$49,048	\$57,223	\$65,397	\$73,572	\$81,747	\$89,921	\$98,096	\$106,271	\$114,445	\$114,445	\$257,229
Park (Acres)	\$10,616	\$24,957	\$34,247	\$45,166	\$56,888	\$68,610	\$80,332	\$83,021	\$83,021	\$83,021	\$83,021	\$83,021	\$83,021	\$83,021	\$83,021	\$83,021	\$83,021	\$83,021	\$83,021
Population (Persons)	\$211,303	\$357,136	\$453,324	\$555,717	\$670,522	\$785,326	\$900,131	\$925,574	\$925,574	\$925,574	\$925,574	\$925,574	\$925,574	\$925,574	\$925,574	\$925,574	\$925,574	\$925,574	\$925,574
Open Space (Acres)	\$4,998	\$11,751	\$16,125	\$21,605	\$27,897	\$34,900	\$42,138	\$43,743	\$44,082	\$44,420	\$44,759	\$45,097	\$45,436	\$45,775	\$46,113	\$46,452	\$46,791	\$46,791	\$59,437
Public Use (Acres)	\$0	\$0	\$0	\$0	\$0	\$21,372	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313	\$56,313
Expenditures Allocated to DUs (excl. Public Safety)	\$101,757	\$171,985	\$218,306	\$267,615	\$322,902	\$378,188	\$433,474	\$445,727	\$445,727	\$445,727	\$445,727	\$445,727	\$445,727	\$445,727	\$445,727	\$445,727	\$445,727	\$445,727	\$445,727
Public Safety Costs Allocated to C	\$429,798	\$726,429	\$922,079	\$1,130,351	\$1,363,869	\$1,597,386	\$1,830,904	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656	\$1,882,656
<b>Total Annual Expenditures</b>	<b>\$758,472</b>	<b>\$1,292,258</b>	<b>\$1,644,080</b>	<b>\$2,028,630</b>	<b>\$2,526,254</b>	<b>\$3,045,961</b>	<b>\$3,545,558</b>	<b>\$3,647,475</b>	<b>\$3,655,989</b>	<b>\$3,664,502</b>	<b>\$3,673,015</b>	<b>\$3,681,528</b>	<b>\$3,690,042</b>	<b>\$3,698,555</b>	<b>\$3,707,068</b>	<b>\$3,715,582</b>	<b>\$3,724,095</b>	<b>\$3,724,095</b>	<b>\$3,930,395</b>
<b>Net Fiscal Impact</b>	<b>(\$36,912)</b>	<b>(\$80,431)</b>	<b>\$372,625</b>	<b>\$215,217</b>	<b>\$171,052</b>	<b>\$142,510</b>	<b>\$123,778</b>	<b>\$277,599</b>	<b>\$279,632</b>	<b>\$289,843</b>	<b>\$319,743</b>	<b>\$352,670</b>	<b>\$388,483</b>	<b>\$427,060</b>	<b>\$468,293</b>	<b>\$512,088</b>	<b>\$558,363</b>	<b>\$606,513</b>	<b>\$832,672</b>

Source: HR&A

### **Comparison of the Village 2 Amendment and Base Village 2 SPA**

Overall, the Base SPA generates greater positive net fiscal impacts to the City of Chula Vista relative to the Village 2 Amendment.

It should be noted that although the Base Village 2 SPA and Village 2 Amendment utilize the same absorption schedule for the first five years, the Base Village 2 SPA remains positive during this period due to revenues attributed to the amount of developed residential acres. The Base SPA has more residential lot acreage (and lower density) relative to the Village 2 Amendment which, using the SPA Fiscal Framework, generates greater fiscal revenues to the City.

With a greater number of residential units overall, the Village 2 Amendment generates greater fiscal revenues relative to the Base SPA, but also generates higher costs in terms of public safety and costs driven by population.

In 2030 (Year 17), the Village 2 Amendment is projected to generate \$5.8 million in annual fiscal revenues to the City of Chula Vista, relative to \$4.3 million in annual fiscal revenues for the Base Village 2 SPA. However, the Village 2 Amendment also generates an estimated \$5.6 million in annual fiscal costs, primarily from public safety costs, resulting in a net fiscal impact of +\$215,000. The Base Village 2 SPA is expected to generate \$3.7 million in fiscal costs, resulting in an estimated annual net fiscal impact of +\$606,000 in 2030.

***Between 2014 and 2030, the Village 2 Amendment generates net fiscal cost of +\$560,000 in present value, at a discount rate of 4 percent.*** During that same period, the Base Village 2 SPA generates a net fiscal revenue of \$3.7 million in present value, at a discount rate of 4 percent.

# Appendices

# Appendix A

Comprehensive V2 Amendment

**Table A-1**  
**Proposed Land Use Program**

Land Use	Base Village 2		Amended Village 2	
	SPA		SPA	
Single Family Residential Units	674	(159.8 Ac.)	604	(120.7 Ac.)
<i>Baldwin &amp; Sons (B&amp;S) Product</i>	451	(112.1 Ac.)	381	(73.0 Ac.)
<i>Other Developers</i>	223	(47.7 Ac.)*	223	(47.7 Ac.)*
Multi-Family Residential Units	2,309	(174.3 Ac.)	3,941	(225.40 Ac.)
<i>B &amp; S MF - For Sale</i>	1,042	(86.8 Ac.)	1,711	(109.0 Ac.)
<i>B&amp;S MF - Rental</i>	320	(23.6 Ac.)	930.0	(38.5 Ac.)
<i>B &amp; S Mixed Use (Rental)</i>	60	(8.5 Ac.)	413	(22.5 Ac.)
<i>Other Developer - MF For Sale</i>	461	(39.2 Ac.)*	461	(39.2 Ac.)*
<i>Other Developer Rental</i>	426	(16.2 Ac.)*	426	(16.2 Ac.)*
Industrial Acres	94.40		82.50	
Mixed Use and Commercial SF	130,000		130,000	
<i>Mixed Use Retail SF ( MU1 - MU3)</i>	30,000		30,000	
<i>Shopping Center Retail SF</i>	100,000	(12.5 Ac.)	100,000	
Park Acres <sup>1</sup>	58.7		70.9	
<i>Park Acres Attributable to Other Villages</i>	31.6		31.6	
<i>Park in Lieu Fee Acres</i>	0.0		0.262	
<i>Park Acres Attributed to Village 2</i>	27.1		39.0	
CPF	6.30		12.6	
School	10.3		19.8	
Public Safety	0.0		0.0	
<b>Subtotal Developed Acres<sup>2</sup></b>	<b>469.8</b>		<b>485.4</b>	
Open Space	204.6		212.9	
Other Acres/ROW	59.5		63.5	
Future Development Acres <sup>3</sup>	31.9		4.0	
<b>Total Acres</b>	<b>765.8</b>		<b>765.8</b>	
<b>Population</b>				
Single Family Persons/DU@	3.24	2,184	1,957	
Multi Family Persons/DU@	3.24	7,481	12,769	
<b>Total Est. Population</b>		<b>9,665</b>	<b>14,726</b>	
<b>Employment</b>	Employes Per Unit			
Retail SF/Emp	400 Per SF	325	325	
General Industrial	12.3 Per Ac.	466	408	
Research/Limited Industrial	20.9 Per Ac.	1,184	1,035	
<b>Total Est. Employment</b>		<b>1,976</b>	<b>1,768</b>	

<sup>1</sup>Park acres include 46.5 acres of park requirement that will be satisfied in Village 4.

<sup>2</sup>Excludes the park acres that will be satisfied in Village 4.

<sup>3</sup>Evaluated as Open Space for purposes of this analysis.

\*Other developers hold 1,110 dwelling units. The Developer estimated the distribution of acres based on existing units.

Source: Developer, City of Chula Vista and HR&A

**Table A-2**  
**Land Use Absorption Schedule**

Comprehensive V2 Amendment																			
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build
																			Out
<b>Cumulative Land Use Program</b>																			
Single Family Residential Units	247	327	377	447	517	587	604	604	604	604	604	604	604	604	604	604	604	604	604
Multi-Family Residential Units	434	824	1,084	1,344	1,644	1,944	2,244	2,544	2,844	3,144	3,355	3,470	3,585	3,700	3,815	3,941	3,941	3,941	3,941
MF For Sale	111	376	576	776	996	1,216	1,436	1,656	1,876	2,076	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172
MF Rental (includes Multi-Use Residential)	323	448	508	568	648	728	808	888	968	1,068	1,183	1,298	1,413	1,528	1,643	1,769	1,769	1,769	1,769
Industrial Acres	0.0	0.0	0.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	42.0	82.5
Retail Commercial SF	0	0	0	0	40,000	80,000	100,000	100,000	100,000	100,000	100,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Parks	8.8	18.0	24.0	31.1	38.7	46.3	50.8	54.4	57.9	61.5	64.0	65.3	66.7	68.1	69.4	70.9	70.9	70.9	70.9
Park Acres Attributable to Village 2	4.8	9.9	13.2	17.1	21.3	25.5	28.0	29.9	31.9	33.8	35.2	36.0	36.7	37.5	38.2	39.0	39.0	39.0	39.0
CPF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	12.60
School	0.0	0.0	0.0	0.0	0.0	0.0	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
Public Safety	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Subtotal Developed Acres</b>	<b>45.7</b>	<b>94.0</b>	<b>125.2</b>	<b>165.5</b>	<b>208.2</b>	<b>251.0</b>	<b>297.4</b>	<b>319.0</b>	<b>340.5</b>	<b>371.1</b>	<b>387.1</b>	<b>397.2</b>	<b>407.3</b>	<b>417.4</b>	<b>427.5</b>	<b>438.3</b>	<b>441.3</b>	<b>441.3</b>	<b>485.4</b>
Open Space	20.1	41.2	54.9	72.6	91.3	110.1	130.5	139.9	149.4	162.7	169.8	174.2	178.6	183.1	187.5	192.2	193.6	193.6	212.9
Other Acres/ROW	6.0	12.3	16.4	21.7	27.2	32.8	38.9	41.7	44.5	48.5	50.6	52.0	53.3	54.6	55.9	57.3	57.7	57.7	63.5
Future Development Acres	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
<b>Total Acres</b>	<b>71.8</b>	<b>147.6</b>	<b>196.6</b>	<b>259.7</b>	<b>326.8</b>	<b>393.9</b>	<b>466.8</b>	<b>500.6</b>	<b>534.4</b>	<b>582.3</b>	<b>607.5</b>	<b>623.4</b>	<b>639.2</b>	<b>655.1</b>	<b>671.0</b>	<b>687.9</b>	<b>692.6</b>	<b>692.6</b>	<b>765.8</b>
<b>Cumulative Population</b>																			
Single Family Persons/DU@	3.24	800	1,059	1,221	1,448	1,675	1,902	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957
Multi Family Persons/DU@	3.24	1,406	2,670	3,512	4,355	5,327	6,299	7,271	8,243	9,215	10,187	10,870	11,243	11,615	11,988	12,361	12,769	12,769	12,769
Total Est. Population	2,206	3,729	4,734	5,803	7,002	8,200	9,228	10,200	11,172	12,144	12,827	13,200	13,572	13,945	14,318	14,726	14,726	14,726	14,726
<b>Cumulative Employment</b>																			
Retail SF/Emp@	400	0	0	0	100	200	250	250	250	250	250	325	325	325	325	325	325	325	325
General Industrial, Emp/Acre	12	0	0	15	30	44	59	74	89	104	119	133	148	163	178	193	207	207	408
Research/Limited Ind., Emp/Acre	21	0	0	38	75	113	151	188	226	263	301	339	376	414	452	489	527	527	1,035
Total Est. Employment	0	0	0	52	205	357	460	512	565	617	670	797	850	902	954	1,007	1,059	1,059	1,768

Source: Developer and HR&A

**Table A-3  
Employment Density Calculation**

Land Use	FAR Estimate	Units Per Acre	Employment Factor	Building Efficiency	Occupancy	Employees/Acre
Retail	0.30 FAR	13,068	400 SF/Emp	80%	90%	23.52
Office	0.80 FAR	34,848	250 SF/Emp	80%	90%	100.36
General Industrial	0.35 FAR	15,246	1000 SF/Emp	90%	90%	12.35
Research/Limited Industrial	0.40 FAR	17,424	600 SF/Emp	80%	90%	20.91

Source: City of Chula Vista, CoStar, HR&A

**Table A-4  
Commercial Assessed Value Calculation**

Commercial Land Uses	FAR Estimate	Units Per Acre	Mo. Rent /SF	Building Efficiency	Occupancy Rate	Admin /Vacancy Cost	Net Income/SF	Cap Rate	Assessed Value Per Unit
Mixed Use Retail			\$1.85	80%	90%	5%	\$15.18	8.0%	\$189.81 Per SF
Shopping Center Retail	0.30 FAR	13,068 SF	\$2.25	80%	90%	5%	\$18.47	8.0%	\$230.85 Per SF
Office	0.80 FAR	34,848 SF	\$2.00	80%	90%	20%	\$13.82	7.50%	\$6,423,183 Per Acre
General Industrial	0.35 FAR	15,246 SF	\$0.60	90%	90%	10%	\$5.25	7.75%	\$1,032,557 Per Acre
Research/Limited Industrial	0.40 FAR	17,424 SF	\$0.95	80%	90%	10%	\$7.39	7.75%	\$1,660,833 Per Acre

Source: CoStar, CB Richard Ellis Cap Rate Survey, Developers and HR&A



**Table A-5**  
**Chula Vista - Expenditure Real Inflation Adjustment<sup>1</sup>**

	2005	2006	2007	2008	2009	5 Year Average
Population	216,961	223,604	227,850	231,157	234,011	
Households	70,916	73,365	74,527	75,259	75,752	
City Staff	1,169	1,227	1,264	1,249	1,110	
Revenues (Actuals)	\$137,763,583	\$157,809,965	\$161,564,721	\$153,938,093	\$140,502,938	
Expenditures (Actuals)	\$142,195,531	\$160,826,968	\$166,056,406	\$155,021,736	\$140,365,277	
CPI (San Diego Area)	220.6	228.1	233.3	242.3	242.3	
Expenditure/Capita	\$655.40	\$719.25	\$728.80	\$670.63	\$599.82	
Revenues/Capita	\$634.97	\$705.76	\$709.08	\$665.95	\$600.41	
2009 CPI Adjustment Factor	1.10	1.06	1.04	1.00	1.00	
Exp/Cap in 2009 Dollars	\$719.87	\$764.02	\$756.91	\$670.63	\$599.82	
Rev/Cap in 2009 Dollars	\$697.43	\$749.69	\$736.44	\$665.95	\$600.41	
Expenditure Adjustment Factor	120%	127%	126%	112%	100%	117%
Revenue Adjustment Factor (Relative to 2009 Levels)	116%	125%	123%	111%	100%	115%

<sup>1</sup> Provided by the City of Chula Vista

Source: City of Chula Vista and HR&A

**Table A-6**  
**Citywide Cost Factors by Function/Department<sup>1</sup>**

	Population (Per Person)	Retail (Per Acre)	Office (Per Acre)	Hotel (Per Acre)	Industrial (Per Acre)	Land Uses		Public Use (Per Acre)	Open Space (Per Acre)	Other (Per Acre)	Residential (Per DU)
						Parks ( per acre) Private	Public				
<b>Legislative and Administration</b>											
City Council	\$2.00										
<b>Boards and Commissions</b>											
City Clerk	\$1.37										
City Attorney		\$80.11	\$86.52	\$51.21	\$21.13						\$12.11
Administration	\$0.29										\$0.35
Management and Information Services	\$4.60										
Human Resources											
<b>Development and Maintenance Services</b>											
Economic Development Function	\$0.00	\$301.43	\$325.55	\$192.68	\$79.51					\$0.00	
Planning and Building Services	\$0.00	\$203.44	\$219.57	\$130.70	\$55.00					\$31.70	\$30.69
Engineering		\$274.44	\$145.29	\$64.57	\$27.44		\$15.53			\$16.85	\$3.07
Public Works		\$5,914.17	\$3,131.03	\$1,391.57	\$591.42		\$69.58	\$347.89		\$347.89	\$68.43
General Services											
<b>Public Safety</b>											
Police (Excluding Residential)	\$11.01	\$6,836.27	\$6,836.27	\$6,836.27	\$1,006.09		\$2,202.49	\$2,202.49		\$2,202.49	
Fire (Excluding Residential)	\$1.05	\$2,917.22	\$2,917.22	\$2,917.22	\$396.88	\$160.46	\$160.46	\$160.46	\$160.46	\$160.46	
<b>Culture and Leisure</b>											
Parks and Recreation	\$18.90										
Library	\$37.32										\$4.77
Nature Center											
<b>Sub-Total Unit Cost</b>	<b>\$76.53</b>	<b>\$16,527.08</b>	<b>\$13,661.45</b>	<b>\$11,584.21</b>	<b>\$2,177.48</b>	<b>\$160.46</b>	<b>\$2,448.06</b>	<b>\$2,710.85</b>	<b>\$160.46</b>	<b>\$2,759.40</b>	<b>\$119.40</b>
Acre to SF Density Adjustment Factors		0.00008									
<b>Total - Density Adjusted Unit Costs</b>	<b>\$76.53</b>	<b>\$1.36</b>	<b>\$13,661.45</b>	<b>\$11,584.21</b>	<b>\$2,177.48</b>	<b>\$160.46</b>	<b>\$2,448.06</b>	<b>\$2,710.85</b>	<b>\$160.46</b>	<b>\$2,759.40</b>	<b>\$119.40</b>

<sup>1</sup>All Cost Factors and Subtotal Cost factors provided by the City

Source: City of Chula Vista and HR&A

**Table A-7  
Dwelling Unit Public Safety Costs**

Comprehensive V2 Amendment

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Future Build Out
Project Residential Units	681	1,151	1,461	1,791	2,161	2,531	2,848	3,148	3,448	3,748	3,959	4,074	4,189	4,304	4,419	4,545	4,545	4,545	4,545
<u>Current Service Costs</u>																			
Police Service Costs/ DU	\$293.70																		
Fire Service Costs/ DU	\$210.64																		
<u>Annual Public Safety</u> (Allocated to Project Dwelling Units)																			
Police	\$200,010	\$338,049	\$429,096	\$526,017	\$634,686	\$743,355	\$836,458	\$924,568	\$1,012,678	\$1,100,788	\$1,162,758	\$1,196,534	\$1,230,309	\$1,264,085	\$1,297,860	\$1,334,867	\$1,334,867	\$1,334,867	\$1,334,867
Fire	\$143,446	\$242,447	\$307,745	\$377,256	\$455,193	\$533,130	\$599,903	\$663,095	\$726,287	\$789,479	\$833,924	\$858,147	\$882,371	\$906,595	\$930,818	\$957,359	\$957,359	\$957,359	\$957,359
<b>Total Annual Public Safety Costs</b>	<b>\$343,456</b>	<b>\$580,495</b>	<b>\$736,841</b>	<b>\$903,273</b>	<b>\$1,089,879</b>	<b>\$1,276,485</b>	<b>\$1,436,360</b>	<b>\$1,587,662</b>	<b>\$1,738,964</b>	<b>\$1,890,266</b>	<b>\$1,996,682</b>	<b>\$2,054,681</b>	<b>\$2,112,680</b>	<b>\$2,170,679</b>	<b>\$2,228,678</b>	<b>\$2,292,225</b>	<b>\$2,292,225</b>	<b>\$2,292,225</b>	<b>\$2,292,225</b>

Source: City of Chula Vista and HR&A

**Table A-8  
Expenditure Summary (2009 \$)**

		Comprehensive V2 Amendment																		Future
Expense Drivers	Unit Cost	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
Dwelling Units		681	1,151	1,461	1,791	2,161	2,531	2,848	3,148	3,448	3,748	3,959	4,074	4,189	4,304	4,419	4,545	4,545	4,545	4,545
Population		2,206	3,729	4,734	5,803	7,002	8,200	9,228	10,200	11,172	12,144	12,827	13,200	13,572	13,945	14,318	14,726	14,726	14,726	14,726
Retail (SF)		0	0	0	0	40,000	80,000	100,000	100,000	100,000	100,000	100,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Industrial Acres		0	0	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	42	42
Hotel Acres		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Park Acres		4.8	9.9	13.2	17.1	21.3	25.5	28.0	29.9	31.9	33.8	35.2	36.0	36.7	37.5	38.2	39.0	39.0	39.0	39.0
Open Space & ROW Acres <sup>1</sup>		26.0	53.6	71.3	94.2	118.6	142.9	169.4	181.6	193.9	211.3	220.4	226.2	231.9	237.7	243.4	249.6	251.3	251.3	280.4
Public Use Acres (School and Public Safety)		0.0	0.0	0.0	0.0	0.0	0.0	19.8	19.8	19.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	32.4
Other Acres/ ROW																				
Expenditure Adjustment Factor		117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%
Retail (SF)	\$1.36	\$0	\$0	\$0	\$0	\$63,457	\$126,914	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$206,235	\$206,235	\$206,235	\$206,235	\$206,235	\$206,235	\$206,235	\$206,235
Industrial (Acres)	\$2,177.48	\$0	\$0	\$0	\$7,648	\$15,296	\$22,944	\$30,592	\$38,240	\$45,888	\$53,536	\$61,184	\$68,832	\$76,479	\$84,127	\$91,775	\$99,423	\$107,071	\$107,071	\$210,319
Park (Acres)	\$2,448.06	\$13,811	\$28,401	\$37,823	\$49,073	\$61,070	\$73,067	\$80,219	\$85,817	\$91,416	\$97,014	\$100,952	\$103,098	\$105,244	\$107,390	\$109,536	\$111,887	\$111,887	\$111,887	\$111,887
Population (Persons)	\$76.53	\$197,688	\$334,125	\$424,115	\$519,911	\$627,319	\$734,726	\$826,748	\$913,836	\$1,000,923	\$1,088,010	\$1,149,262	\$1,182,645	\$1,216,028	\$1,249,412	\$1,282,795	\$1,319,372	\$1,319,372	\$1,319,372	\$1,319,372
Open Space & ROW (Acres)	\$160.46	\$4,892	\$10,060	\$13,398	\$17,704	\$22,275	\$26,845	\$31,818	\$34,122	\$36,426	\$39,693	\$41,408	\$42,489	\$43,571	\$44,652	\$45,733	\$46,887	\$47,207	\$47,207	\$52,676
Public Use (Acres)	\$2,710.85	\$0	\$0	\$0	\$0	\$0	\$0	\$62,841	\$62,841	\$62,841	\$91,404	\$91,404	\$91,404	\$91,404	\$91,404	\$91,404	\$91,404	\$91,404	\$91,404	\$102,830
Expenditures Allocated to DUs (excluding Public Safety)	\$119.40	\$95,200	\$160,904	\$204,240	\$250,372	\$302,096	\$353,821	\$398,136	\$440,074	\$482,012	\$523,951	\$553,447	\$569,524	\$585,600	\$601,677	\$617,753	\$635,367	\$635,367	\$635,367	\$635,367
Public Safety Costs Allocated to DUs		\$402,106	\$679,624	\$862,667	\$1,057,520	\$1,275,992	\$1,494,463	\$1,681,640	\$1,858,779	\$2,035,918	\$2,213,057	\$2,337,645	\$2,405,548	\$2,473,452	\$2,541,355	\$2,609,258	\$2,683,657	\$2,683,657	\$2,683,657	\$2,683,657
<b>Total Est. Annual Expenditures (2009 Dollars)</b>		<b>\$713,697</b>	<b>\$1,213,113</b>	<b>\$1,542,243</b>	<b>\$1,902,229</b>	<b>\$2,367,504</b>	<b>\$2,832,780</b>	<b>\$3,270,636</b>	<b>\$3,592,351</b>	<b>\$3,914,066</b>	<b>\$4,265,308</b>	<b>\$4,493,945</b>	<b>\$4,669,776</b>	<b>\$4,798,014</b>	<b>\$4,926,252</b>	<b>\$5,054,490</b>	<b>\$5,194,233</b>	<b>\$5,202,202</b>	<b>\$5,202,202</b>	<b>\$5,322,343</b>

<sup>1</sup>Includes Future Development Acres

Source: HR&A

**Table A-9**  
**City of Chula Vista - Discretionary Revenues (Based on the FY 2009 Amended Budget)**

Non-Departmental Revenue Categories	Discretionary Revenues		Program Revenues (Estimate)	Net Revenues	Revenue Distribution	
	Amended	Budget 2009			Fixed Revenues	Variable Revenues
<b>Property Taxes</b>						
Current Taxes - Secured		\$28,363,165		\$28,363,165		\$28,363,165
State Secured - Unitary		\$300,000		\$300,000		\$300,000
Current Taxes - Unsecured		\$979,200		\$979,200		\$979,200
Delinquent Taxes		\$590,000		\$590,000		\$590,000
<i>Subtotal</i>		\$30,232,365	\$0	\$30,232,365	\$0	\$30,232,365
<b>Other Local Taxes</b>						
Sales and Use Taxes		\$29,677,977		\$29,677,977		\$29,677,977
Franchise Fees		\$8,732,093		\$8,732,093		\$8,732,093
Utility Taxes		\$7,122,095		\$7,122,095		\$7,122,095
Business License Tax		\$1,322,847		\$1,322,847		\$1,322,847
Transient Occupancy Taxes		\$2,752,514		\$2,752,514		\$2,752,514
Real Property Transfer Tax		\$841,402		\$841,402		\$841,402
<i>Subtotal</i>		\$50,448,928	\$0	\$50,448,928	\$0	\$50,448,928
<b>Use of Money and Property</b>						
<i>Subtotal</i>		\$4,163,212	\$0	\$4,163,212	\$4,163,212	\$0
<b>Revenues from other Agencies</b>						
Sales Tax: Public Safety Augment		\$875,347		\$875,347		\$875,347
State Homeowners Property Tax Relief		\$282,800		\$282,800		\$282,800
State Motor Vehicle Licenses		\$20,215,866		\$20,215,866		\$20,215,866
Other Revenues from other Agencies		\$4,324,532		\$4,324,532		\$4,324,532
<i>Subtotal</i>		\$25,698,545		\$25,698,545		\$25,698,545
<b>Charges for Services<sup>1</sup></b>						
<i>Subtotal</i>		\$8,854,774	\$0	\$8,854,774	\$8,854,774	\$0
<b>Other Revenues (less CIP)<sup>2</sup></b>						
<i>Subtotal</i>		\$10,580,609	\$0	\$10,580,609	\$10,580,609	\$0
<b>Transfers In</b>						
<i>Subtotal</i>		\$12,272,473	\$0	\$12,272,473	\$12,272,473	\$0
<b>Total Discretionary Revenues (Less CIP Transfers)</b>		<b>\$142,250,906</b>	<b>\$0</b>	<b>\$142,250,906</b>	<b>\$35,871,068</b>	<b>\$106,379,838</b>

<sup>1</sup>Includes Licenses and Permits

<sup>2</sup>Other Revenue excludes funds from the CIP fund. Fines, Forfeitures, and Penalties are included in this category.

Source: City of Chula Vista

**Table A-10**  
**Chula Vista - Other Discretionary Revenue Allocation Factors (Based on 2009 Information)**

<b>2009 Citywide Conditions</b>	
Population	226,694
Dwelling Units	78,615
Employees	71,153

<b>Land Uses</b>	<b>Developed Acres</b>	<b>Employees</b> (estimated)	<b>AV Share (Estimates)</b>
Commercial (Retail and Office)	2,048	46,842	25%
Industrial	917	21,162	8%
Residential	9,565		67%
Subtotal Taxable	12,530	68,004	
Other (Parks, Public/Quasi-public, Open Space)	7,171	3,149	
Total	19,702	71,153	

Incremental Revenue Factors by Development Unit

<b>Revenue Category</b>	<b>2009 Revenues</b>	<b>Allocation Method</b>	<b>Share</b>	<b>Allocation Units</b>
<b>Property Taxes</b>				
Current Taxes - Secured	\$28,363,165	Calculated Separately		
State Secured - Unitary	\$300,000	Commercial AV	25%	\$36.61 Acres
		Industrial AV	8%	\$26.17 Acres
		Residential AV	67%	\$21.01 Acres
Current Taxes - Unsecured	\$979,200	Commercial AV	25%	\$119.51 Acres
		Industrial AV	8%	\$85.42 Acres
		Residential AV	67%	\$68.59 Acres
Delinquent Taxes	\$590,000	Commercial AV	25%	\$72.01 Acres
		Industrial AV	8%	\$51.47 Acres
		Residential AV	67%	\$41.33 Acres
<b>Other Local Taxes</b>				
Sales and Use Taxes	\$29,677,977	Calculated Separately		
Franchise Fees <sup>1</sup>	\$8,732,093	Commercial Land	7%	\$298.40 Acres
		Industrial Land	3%	\$285.66 Acres
		Residential Land	90%	\$821.63 Acres
Utility Taxes <sup>1</sup> with Adjustment <sup>2</sup>	\$6,777,386	Commercial Land	9%	\$297.77 Acres
		Industrial Land	4%	\$295.62 Acres
		Residential Land	87%	\$616.45 Acres
Business License Tax	\$1,322,847	Employees (Non-Public)		\$19.45 Employees
Transient Occupancy Taxes	\$2,752,514	Not Included		
Real Property Transfer Tax	\$841,402	Calculated Separately		
<b>Revenues from Other Agencies</b>				
Sales Tax: Public Safety Augment	\$875,347	People		\$3.86 Person
State Homeowners Property Tax Relief	\$282,800	Dwelling Units		\$3.60 DU
State Motor Vehicle Licenses	\$20,215,866	Calculated Separately		
<b>Total Discretionary Revenues</b>	<b>\$101,710,597</b>			

<b>Summary of Other Discretionary Revenue Factors</b>	
Commercial (Acres)	\$824.30
Retail Commercial (SF)	\$0.07
Industrial (Acres)	\$744.34
Residential (Acres)	\$1,569.01
Residential (DU)	\$3.60
Employees	\$19.45
Population	\$3.86

<sup>1</sup> As presented in SPA Fiscal Impact Framework, allocation share by land use based on FIND model estimates

<sup>2</sup> Utility User's Tax has been adjusted to account for a change in the wireless utility users' rate from 5.00% to 4.75%, effective March 2014 and an expected reduction of 4% annually in demand for taxable services.

Source: City of Chula Vista and HR&A

**Table A-11**  
**Projected Program Assessed Value**

		Comprehensive V2 Amendment																					
		Year 0 <sup>1</sup>	2014 Year 1	2015 Year 2	2016 Year 3	2017 Year 4	2018 Year 5	2019 Year 6	2020 Year 7	2021 Year 8	2022 Year 9	2023 Year 10	2024 Year 11	2025 Year 12	2026 Year 13	2027 Year 14	2028 Year 15	2029 Year 16	2030 Year 17	Balance of SPA	Future Build Out		
Cumulative Program Assessed Value	Est. Assessed Value Per Unit (Millions \$)																						
<b>Land Use</b>																							
Single Family Residential Units	\$465,000	\$92.3	\$244.4	\$267.6	\$300.2	\$332.7	\$365.3	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	\$373.2	373.2	
MF For Sale	\$305,000	31.0	145.7	206.7	267.7	334.8	401.9	469.0	536.1	603.2	664.2	693.5	693.5	693.5	693.5	693.5	693.5	693.5	693.5	693.5	693.5	693.5	693.5
<b>Total For Sale Product</b>		<b>\$123.3</b>	<b>\$390.1</b>	<b>\$474.3</b>	<b>\$567.9</b>	<b>\$667.5</b>	<b>\$767.2</b>	<b>\$842.2</b>	<b>\$909.3</b>	<b>\$976.4</b>	<b>\$1,037.4</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	<b>\$1,066.6</b>	
MF Rental (including Mixed Use Units)	\$280,000	50.0	175.4	192.2	209.0	231.4	253.8	276.2	298.6	321.0	349.0	381.2	413.4	445.6	477.8	510.0	545.3	545.3	545.3	545.3	545.3	545.3	
Industrial Acres <sup>2</sup>	\$1,409,523		0.0	0.0	4.2	8.5	12.7	16.9	21.1	25.4	29.6	33.8	38.1	42.3	46.5	50.7	55.0	59.2	59.2	116.3	116.3	116.3	
Mixed Use Retail Commercial SF <sup>3</sup>	\$221	0.0	0.0	0.0	0.0	8.8	17.6	22.1	22.1	22.1	22.1	22.1	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	
<b>Total Income Generating Product</b>		<b>\$50.0</b>	<b>\$175.4</b>	<b>\$192.2</b>	<b>\$213.3</b>	<b>\$248.7</b>	<b>\$284.2</b>	<b>\$315.2</b>	<b>\$341.8</b>	<b>\$368.5</b>	<b>\$400.7</b>	<b>\$437.1</b>	<b>\$480.2</b>	<b>\$516.6</b>	<b>\$553.0</b>	<b>\$589.5</b>	<b>\$629.0</b>	<b>\$633.2</b>	<b>\$633.2</b>	<b>\$690.3</b>	<b>\$690.3</b>	<b>\$690.3</b>	
<b>Total Assessed Value</b>		<b>\$173.3</b>	<b>\$565.5</b>	<b>\$666.6</b>	<b>\$781.1</b>	<b>\$916.2</b>	<b>\$1,051.3</b>	<b>\$1,157.4</b>	<b>\$1,251.1</b>	<b>\$1,344.8</b>	<b>\$1,438.1</b>	<b>\$1,503.8</b>	<b>\$1,546.8</b>	<b>\$1,583.3</b>	<b>\$1,619.7</b>	<b>\$1,656.1</b>	<b>\$1,695.6</b>	<b>\$1,699.8</b>	<b>\$1,699.8</b>	<b>\$1,756.9</b>	<b>\$1,756.9</b>	<b>\$1,756.9</b>	

<sup>1</sup>Existing Units are included at their current assessed value.

<sup>2</sup>Industrial Assessed Value is a blended value for general industrial (40%) and research/limited industrial (60%)

<sup>3</sup>Retail Assessed Value includes blended value for shopping center retail (75%) and mixed-use retail (25%)

Source: HR&A

**Table A-12  
Property Tax Estimate**

Comprehensive V2 Amendment

	Year 0 (Value)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Balance of SPA	Future Build Out	
Annual For Sale Product AV (Millions)	\$123.3	\$266.7	\$84.3	\$93.6	\$99.7	\$99.7	\$75.0	\$67.1	\$67.1	\$61.0	\$29.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Annual Income Generating Product AV (Millions)	\$50.0	\$125.4	\$16.8	\$21.0	\$35.5	\$35.5	\$31.0	\$26.6	\$26.6	\$32.2	\$36.4	\$43.0	\$36.4	\$36.4	\$36.4	\$39.5	\$4.2	\$0.0	\$57.1		
																				Future	
<b>Appreciation Factor:</b>	<b>Annual Rate</b>	<b>Yr 0</b>	<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>	<b>Yr 4</b>	<b>Yr 5</b>	<b>Yr 6</b>	<b>Yr 7</b>	<b>Yr 8</b>	<b>Yr 9</b>	<b>Yr 10</b>	<b>Yr 11</b>	<b>Yr 12</b>	<b>Yr 13</b>	<b>Yr 14</b>	<b>Yr 15</b>	<b>Yr 16</b>	<b>Yr 17</b>	<b>Balance of SPA</b>	<b>Build Out</b>
Real Appreciation Rate	2.00%	100%	100%	102%	104%	106%	108%	110%	113%	115%	117%	120%	122%	124%	127%	129%	132%	135%	137%	140%	143%
Proposition 13 AV Limitation less Inflation of 2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Residential Annual Turnover Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Commercial Turnover Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>For Sale Residential Product</b>																					
Year Property First Sold:																					
	Yr 0	\$123.3	\$123.3	\$123.58	\$124.0	\$124.7	\$125.6	\$126.7	\$127.9	\$129.3	\$130.8	\$132.4	\$134.2	\$136.1	\$138.2	\$140.3	\$142.6	\$144.9	\$147.3	\$149.9	\$152.5
	Yr 1		\$266.74	\$267.27	\$268.3	\$269.8	\$271.7	\$273.9	\$276.6	\$279.6	\$282.9	\$286.5	\$290.3	\$294.5	\$298.8	\$303.5	\$308.3	\$313.4	\$318.7	\$324.1	\$329.8
	Yr 2			\$85.94	\$86.1	\$86.4	\$86.9	\$87.5	\$88.3	\$89.1	\$90.1	\$91.1	\$92.3	\$93.5	\$94.9	\$96.3	\$97.8	\$99.3	\$101.0	\$102.7	\$104.4
	Yr 3				\$97.3	\$97.5	\$97.9	\$98.4	\$99.1	\$100.0	\$100.9	\$102.0	\$103.2	\$104.5	\$105.9	\$107.4	\$109.0	\$110.7	\$112.5	\$114.3	\$116.3
	Yr 4					\$105.7	\$106.0	\$106.4	\$107.0	\$107.7	\$108.6	\$109.7	\$110.8	\$112.1	\$113.6	\$115.1	\$116.7	\$118.5	\$120.3	\$122.2	\$124.2
	Yr 5						\$107.9	\$108.1	\$108.5	\$109.1	\$109.9	\$110.8	\$111.9	\$113.1	\$114.4	\$115.8	\$117.4	\$119.1	\$120.8	\$122.7	\$124.7
	Yr 6							\$82.8	\$83.0	\$83.3	\$83.8	\$84.3	\$85.1	\$85.9	\$86.8	\$87.8	\$88.9	\$90.1	\$91.4	\$92.8	\$94.2
	Yr 7								\$75.6	\$75.7	\$76.0	\$76.4	\$77.0	\$77.6	\$78.4	\$79.2	\$80.1	\$81.2	\$82.2	\$83.4	\$84.7
	Yr 8									\$77.1	\$77.2	\$77.5	\$78.0	\$78.5	\$79.2	\$79.9	\$80.8	\$81.7	\$82.8	\$83.9	\$85.1
	Yr 9										\$71.5	\$71.6	\$71.9	\$72.3	\$72.8	\$73.4	\$74.1	\$74.9	\$75.8	\$76.8	\$77.8
	Yr 10											\$34.99	\$35.06	\$35.20	\$35.39	\$35.64	\$35.94	\$36.29	\$36.68	\$37.11	\$37.58
	Yr 11												\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 12													\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 13														\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 14															\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 15																\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 16																	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 17																		\$0.00	\$0.00	\$0.00
	Incremental Build Out																			\$0.00	\$0.00
	Future Build Out																				\$0.00
For Sale Residential Assessed Value (Millions)	\$123.3	\$390.1	\$476.8	\$575.8	\$684.2	\$795.9	\$883.8	\$965.9	\$1,050.8	\$1,131.6	\$1,177.4	\$1,189.7	\$1,203.3	\$1,218.3	\$1,234.4	\$1,251.7	\$1,270.1	\$1,289.5	\$1,309.9	\$1,331.3	



**Table A-12 (Cont.)  
Property Tax Estimate**

Comprehensive V2 Amendment

		Year 0 (Value)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Balance of SPA	Future Build Out
Annual For Sale Product AV (Millions)		\$123.3	\$266.7	\$84.3	\$93.6	\$99.7	\$99.7	\$75.0	\$67.1	\$67.1	\$61.0	\$29.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Annual Income Generating Product AV (Millions)		\$50.0	\$125.4	\$16.8	\$21.0	\$35.5	\$35.5	\$31.0	\$26.6	\$26.6	\$32.2	\$36.4	\$43.0	\$36.4	\$36.4	\$36.4	\$39.5	\$4.2	\$0.0	\$57.1	
																					Future
<b>Appreciation Factor:</b>	<b>Annual Rate</b>	<b>Yr 0</b>	<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>	<b>Yr 4</b>	<b>Yr 5</b>	<b>Yr 6</b>	<b>Yr 7</b>	<b>Yr 8</b>	<b>Yr 9</b>	<b>Yr 10</b>	<b>Yr 11</b>	<b>Yr 12</b>	<b>Yr 13</b>	<b>Yr 14</b>	<b>Yr 15</b>	<b>Yr 16</b>	<b>Yr 17</b>	<b>Balance of SPA</b>	<b>Build Out</b>
Real Appreciation Rate	2.00%	100%	100%	102%	104%	106%	108%	110%	113%	115%	117%	120%	122%	124%	127%	129%	132%	135%	137%	140%	143%
Proposition 13 AV Limitation less Inflation of 2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Residential Annual Turnover Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Commercial Turnover Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>Commercial and Rental Residential Product</b>																					
Year Property First Sold:																					
	Yr 0	\$50.00	\$50.00	\$50.1	\$50.1	\$50.3	\$50.5	\$50.7	\$51.0	\$51.3	\$51.7	\$52.1	\$52.5	\$53.0	\$53.5	\$54.1	\$54.7	\$55.3	\$56.0	\$56.7	\$57.4
	Yr 1		\$125.44	\$125.6	\$125.8	\$126.2	\$126.7	\$127.2	\$128.0	\$128.8	\$129.7	\$130.7	\$131.8	\$133.0	\$134.3	\$135.7	\$137.2	\$138.8	\$140.4	\$142.2	\$144.1
	Yr 2			\$17.14	\$17.2	\$17.2	\$17.2	\$17.3	\$17.4	\$17.5	\$17.6	\$17.7	\$17.9	\$18.0	\$18.3	\$18.5	\$18.7	\$18.8	\$19.0	\$19.2	\$19.4
	Yr 3				\$21.88	\$21.9	\$21.9	\$22.0	\$22.1	\$22.2	\$22.3	\$22.5	\$22.6	\$22.8	\$23.0	\$23.2	\$23.4	\$23.7	\$23.9	\$24.2	\$24.5
	Yr 4					\$37.62	\$37.7	\$37.7	\$37.8	\$38.0	\$38.2	\$38.4	\$38.6	\$38.9	\$39.2	\$39.5	\$39.9	\$40.3	\$40.7	\$41.1	\$41.6
	Yr 5						\$38.37	\$38.4	\$38.5	\$38.6	\$38.7	\$38.9	\$39.1	\$39.4	\$39.7	\$40.0	\$40.3	\$40.7	\$41.1	\$41.5	\$42.0
	Yr 6							\$34.27	\$34.3	\$34.4	\$34.5	\$34.6	\$34.8	\$35.0	\$35.2	\$35.4	\$35.7	\$36.0	\$36.3	\$36.7	\$37.1
	Yr 7								\$29.99	\$30.0	\$30.1	\$30.2	\$30.3	\$30.4	\$30.6	\$30.8	\$31.0	\$31.2	\$31.5	\$31.8	\$32.1
	Yr 8									\$30.59	\$30.6	\$30.68	\$30.77	\$30.88	\$31.03	\$31.20	\$31.40	\$31.62	\$31.87	\$32.14	\$32.43
	Yr 9										\$37.76	\$37.8	\$37.9	\$38.0	\$38.1	\$38.3	\$38.5	\$38.8	\$39.0	\$39.3	\$39.7
	Yr 10											\$43.54	\$43.6	\$43.7	\$43.8	\$44.0	\$44.2	\$44.4	\$44.7	\$45.0	\$45.4
	Yr 11												\$52.47	\$52.53	\$52.63	\$52.78	\$52.98	\$53.23	\$53.52	\$53.86	\$54.24
	Yr 12													\$45.29	\$45.34	\$45.43	\$45.56	\$45.73	\$45.95	\$46.20	\$46.49
	Yr 13														\$46.20	\$46.25	\$46.34	\$46.47	\$46.65	\$46.87	\$47.12
	Yr 14															\$47.12	\$47.17	\$47.26	\$47.40	\$47.58	\$47.80
	Yr 15																\$52.13	\$52.18	\$52.29	\$52.44	\$52.64
	Yr 16																	\$5.69	\$5.70	\$5.71	\$5.72
	Yr 17																		\$0.00	\$0.00	\$0.00
	Incremental Development Build Out																			\$79.93	\$80.01
																					\$0.00
Commercial and Rental Residential Assessed Value (Millions)		\$50.0	\$175.4	\$192.8	\$215.0	\$253.2	\$292.4	\$327.7	\$359.1	\$391.3	\$431.1	\$477.0	\$532.3	\$580.8	\$630.7	\$682.1	\$739.0	\$750.1	\$756.0	\$842.5	\$849.7
Total Assessed Value (Residential and Commercial) (Millions)		\$173.3	\$565.5	\$669.5	\$790.8	\$937.4	\$1,088.3	\$1,211.5	\$1,324.9	\$1,442.1	\$1,562.7	\$1,654.4	\$1,722.0	\$1,784.2	\$1,849.0	\$1,916.5	\$1,990.7	\$2,020.2	\$2,045.6	\$2,152.4	\$2,181.0
Less Base Assessed Value		(0.9)	(1.8)	(2.4)	(3.2)	(4.1)	(4.9)	(5.8)	(6.2)	(6.6)	(7.2)	(7.6)	(7.8)	(8.0)	(8.1)	(8.3)	(8.6)	(8.6)	(8.6)	(9.5)	(9.5)
Incremental AV (Residential and Commercial) (Millions)		\$172.4	\$563.7	\$667.1	\$787.5	\$933.3	\$1,083.4	\$1,205.7	\$1,318.7	\$1,435.5	\$1,555.4	\$1,646.9	\$1,714.2	\$1,776.2	\$1,840.9	\$1,908.2	\$1,982.2	\$2,011.6	\$2,037.0	\$2,143.0	\$2,171.5
<b>Total Incremental Property Taxes Collected<sup>1</sup></b>	<b>1.00%</b>	<b>\$1,724,374</b>	<b>\$1,724,374</b>	<b>\$5,636,692</b>	<b>\$6,670,866</b>	<b>\$7,875,408</b>	<b>\$9,333,290</b>	<b>\$10,833,686</b>	<b>\$12,057,236</b>	<b>\$13,186,797</b>	<b>\$14,354,658</b>	<b>\$15,554,397</b>	<b>\$16,468,600</b>	<b>\$17,142,123</b>	<b>\$17,762,035</b>	<b>\$18,408,678</b>	<b>\$19,081,828</b>	<b>\$19,821,860</b>	<b>\$20,115,773</b>	<b>\$20,369,523</b>	<b>\$21,429,583</b>
<b>Property Tax Share to the City</b>	<b>10.636%</b>	<b>\$183,410</b>	<b>\$183,410</b>	<b>\$599,537</b>	<b>\$709,535</b>	<b>\$837,654</b>	<b>\$992,719</b>	<b>\$1,152,306</b>	<b>\$1,282,446</b>	<b>\$1,402,590</b>	<b>\$1,526,807</b>	<b>\$1,654,415</b>	<b>\$1,751,653</b>	<b>\$1,823,291</b>	<b>\$1,889,227</b>	<b>\$1,958,006</b>	<b>\$2,029,604</b>	<b>\$2,108,317</b>	<b>\$2,139,578</b>	<b>\$2,166,568</b>	<b>\$2,279,319</b>

**Table A-13**  
**Annual Property Transfer Tax Estimate**

Comprehensive V2 Amendment

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Balance of Development	Future Build Out	
Annual For Sale Product AV (Millions)		\$123.3	\$266.7	\$84.3	\$93.6	\$99.7	\$99.7	\$75.0	\$67.1	\$67.1	\$61.0	\$29.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Annual Income Generating Product AV (Millions)		\$50.0	\$125.4	\$16.8	\$21.0	\$35.5	\$35.5	\$31.0	\$26.6	\$26.6	\$32.2	\$36.4	\$43.0	\$36.4	\$36.4	\$36.4	\$39.5	\$4.2	\$0.0	\$57.1		
Appreciation Factor:	Annual Rate	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Future Build Out	
Real Appreciation Rate	2.00%	100%	100%	102%	104%	106%	108%	110%	113%	115%	117%	120%	122%	124%	127%	129%	132%	135%	137%	140%	143%	
Residential Annual Turnover Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Commercial Turnover Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>For Sale Residential Product</b>																						
Year Property First Sold:																						
	Yr 0	\$67,831	\$6,783	\$6,919	\$7,057	\$7,198	\$7,342	\$7,489	\$7,639	\$7,792	\$7,947	\$8,106	\$8,269	\$8,434	\$8,603	\$8,775	\$8,950	\$9,129	\$9,312	\$9,498	\$9,688	
	Yr 1		\$146,704	\$14,964	\$15,263	\$15,568	\$15,880	\$16,197	\$16,521	\$16,852	\$17,189	\$17,533	\$17,883	\$18,241	\$18,606	\$18,978	\$19,357	\$19,744	\$20,139	\$20,542	\$20,953	
	Yr 2			\$47,264	\$4,821	\$4,917	\$5,016	\$5,116	\$5,218	\$5,323	\$5,429	\$5,538	\$5,649	\$5,761	\$5,877	\$5,994	\$6,114	\$6,236	\$6,361	\$6,488	\$6,618	
	Yr 3				\$53,531	\$5,460	\$5,569	\$5,681	\$5,794	\$5,910	\$6,028	\$6,149	\$6,272	\$6,397	\$6,525	\$6,656	\$6,789	\$6,925	\$7,063	\$7,205	\$7,349	
	Yr 4					\$58,162	\$5,933	\$6,051	\$6,172	\$6,296	\$6,422	\$6,550	\$6,681	\$6,815	\$6,951	\$7,090	\$7,232	\$7,376	\$7,524	\$7,674	\$7,828	
	Yr 5						\$59,325	\$6,051	\$6,172	\$6,296	\$6,422	\$6,550	\$6,681	\$6,815	\$6,951	\$7,090	\$7,232	\$7,376	\$7,524	\$7,674	\$7,828	
	Yr 6							\$45,546	\$4,646	\$4,739	\$4,833	\$4,930	\$5,029	\$5,129	\$5,232	\$5,336	\$5,443	\$5,552	\$5,663	\$5,776	\$5,892	
	Yr 7								\$41,561	\$4,239	\$4,324	\$4,410	\$4,499	\$4,589	\$4,680	\$4,774	\$4,870	\$4,967	\$5,066	\$5,168	\$5,271	
	Yr 8									\$42,392	\$4,324	\$4,410	\$4,499	\$4,589	\$4,680	\$4,774	\$4,870	\$4,967	\$5,066	\$5,168	\$5,271	
	Yr 9										\$39,309	\$4,010	\$4,090	\$4,172	\$4,255	\$4,340	\$4,427	\$4,515	\$4,606	\$4,698	\$4,792	
	Yr 10											\$19,246	\$1,963	\$2,002	\$2,042	\$2,083	\$2,125	\$2,167	\$2,211	\$2,255	\$2,300	
	Yr 11												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Yr 12													\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Yr 13														\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Yr 14															\$0	\$0	\$0	\$0	\$0	\$0	
	Yr 15																\$0	\$0	\$0	\$0	\$0	
	Yr 16																	\$0	\$0	\$0	\$0	
	Yr 17																		\$0	\$0	\$0	
	Balance of Development																			\$0	\$0	
	Future Build Out																				\$0	
For Sale Residential Property Transfer Taxes		\$67,831	\$153,487	\$69,147	\$80,672	\$91,306	\$99,065	\$92,132	\$93,724	\$99,838	\$102,228	\$87,432	\$71,513	\$72,943	\$74,402	\$75,890	\$77,408	\$78,956	\$80,535	\$82,146	\$83,789	

**Table A-13 (Cont.)**

**Annual Property Transfer Tax Estimate**

Comprehensive V2 Amendment

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Balance of Development	Future Build Out	
Annual For Sale Product AV (Millions)	\$123.3	\$266.7	\$84.3	\$93.6	\$99.7	\$99.7	\$75.0	\$67.1	\$67.1	\$61.0	\$29.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Annual Income Generating Product AV (Millions)	\$50.0	\$125.4	\$16.8	\$21.0	\$35.5	\$35.5	\$31.0	\$26.6	\$26.6	\$32.2	\$36.4	\$43.0	\$36.4	\$36.4	\$36.4	\$39.5	\$4.2	\$0.0	\$57.1		
Appreciation Factor:	Annual Rate	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Future Build Out
Real Appreciation Rate	2.00%	100%	100%	102%	104%	106%	108%	110%	113%	115%	117%	120%	122%	124%	127%	129%	132%	135%	137%	140%	143%
Residential Annual Turnover Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Commercial Turnover Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>Commercial and Rental Residential Product</b>																					
Year Property First Sold:																					
	Yr 0	\$27,501	\$1,375	\$1,403	\$1,431	\$1,459	\$1,488	\$1,518	\$1,549	\$1,579	\$1,611	\$1,643	\$1,676	\$1,710	\$1,744	\$1,779	\$1,814	\$1,851	\$1,888	\$1,925	\$1,964
	Yr 1		\$68,992	\$3,519	\$3,589	\$3,661	\$3,734	\$3,809	\$3,885	\$3,963	\$4,042	\$4,123	\$4,205	\$4,289	\$4,375	\$4,462	\$4,552	\$4,643	\$4,736	\$4,830	\$4,927
	Yr 2			\$9,425	\$481	\$490	\$500	\$510	\$520	\$531	\$541	\$552	\$563	\$574	\$586	\$598	\$610	\$622	\$634	\$647	\$660
	Yr 3				\$12,033	\$614	\$626	\$638	\$651	\$664	\$678	\$691	\$705	\$719	\$733	\$748	\$763	\$778	\$794	\$810	\$826
	Yr 4					\$20,692	\$1,055	\$1,076	\$1,098	\$1,120	\$1,142	\$1,165	\$1,188	\$1,212	\$1,236	\$1,261	\$1,286	\$1,312	\$1,338	\$1,365	\$1,392
	Yr 5						\$21,106	\$1,076	\$1,098	\$1,120	\$1,142	\$1,165	\$1,188	\$1,212	\$1,236	\$1,261	\$1,286	\$1,312	\$1,338	\$1,365	\$1,392
	Yr 6							\$18,849	\$961	\$981	\$1,000	\$1,020	\$1,041	\$1,061	\$1,083	\$1,104	\$1,126	\$1,149	\$1,172	\$1,195	\$1,219
	Yr 7								\$16,493	\$841	\$858	\$875	\$893	\$911	\$929	\$947	\$966	\$986	\$1,005	\$1,025	\$1,046
	Yr 8									\$16,823	\$858	\$875	\$893	\$911	\$929	\$947	\$966	\$986	\$1,005	\$1,025	\$1,046
	Yr 9										\$20,768	\$1,059	\$1,080	\$1,102	\$1,124	\$1,147	\$1,169	\$1,193	\$1,217	\$1,241	\$1,266
	Yr 10											\$23,945	\$1,221	\$1,246	\$1,271	\$1,296	\$1,322	\$1,348	\$1,375	\$1,403	\$1,431
	Yr 11												\$28,860	\$1,472	\$1,501	\$1,531	\$1,562	\$1,593	\$1,625	\$1,658	\$1,691
	Yr 12													\$24,912	\$1,271	\$1,296	\$1,322	\$1,348	\$1,375	\$1,403	\$1,431
	Yr 13														\$25,410	\$1,296	\$1,322	\$1,348	\$1,375	\$1,403	\$1,431
	Yr 14															\$25,918	\$1,322	\$1,348	\$1,375	\$1,403	\$1,431
	Yr 15																\$28,672	\$1,462	\$1,492	\$1,521	\$1,552
	Yr 16																	\$3,130	\$160	\$163	\$166
	Yr 17																		\$0	\$0	\$0
	Balance of Development																			\$43,964	\$2,242
	Build Out																				\$0
Commercial and Rental Residential Property Transfer Tax	\$27,501	\$70,367	\$14,346	\$17,533	\$26,916	\$28,510	\$27,477	\$26,255	\$27,622	\$32,641	\$37,114	\$43,514	\$41,330	\$43,428	\$45,592	\$50,061	\$26,409	\$23,904	\$68,346	\$27,112	
Total Annual Property Taxes to the City	\$95,332	\$95,332	\$223,854	\$83,493	\$98,206	\$118,222	\$127,575	\$119,609	\$119,980	\$127,460	\$134,869	\$124,546	\$115,027	\$114,274	\$117,830	\$121,482	\$127,469	\$105,365	\$104,440	\$150,492	

Source: HR&A

**Table A-14**  
**Motor Vehicle License Fee Estimates**

	Comprehensive V2 Amendment																	Future	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
Motor Vehicle In Lieu Fee (MVLFF) Adjustment																			
Base Year (2004) Assessed Valuation of the City (Millions)	\$15,596																		
Base Year (2004) Motor Vehicle In Lieu Fee Adjustment (MVLFF) (Millions)	\$11.8																		
Cumulative AV of New Development (Millions)	\$173.3	\$565.5	\$669.5	\$790.8	\$937.4	\$1,088.3	\$1,211.5	\$1,324.9	\$1,442.1	\$1,562.7	\$1,654.4	\$1,722.0	\$1,784.2	\$1,849.0	\$1,916.5	\$1,990.7	\$2,020.2	\$2,045.6	\$2,152.4
AV Adjustment of Base Value (Millions)	(\$0.9)	(\$1.8)	(\$2.4)	(\$3.2)	(\$4.1)	(\$4.9)	(\$5.8)	(\$6.2)	(\$6.6)	(\$7.2)	(\$7.6)	(\$7.8)	(\$8.0)	(\$8.1)	(\$8.3)	(\$8.6)	(\$8.6)	(\$8.6)	(\$9.5)
Adjusted Cumulative AV Development (Millions)	\$172.4	\$563.7	\$667.1	\$787.5	\$933.3	\$1,083.4	\$1,205.7	\$1,318.7	\$1,435.5	\$1,555.4	\$1,646.9	\$1,714.2	\$1,776.2	\$1,840.9	\$1,908.2	\$1,982.2	\$2,011.6	\$2,037.0	\$2,143.0
Cumulative Citywide AV Growth (Millions)	\$15,769	\$16,160	\$16,263	\$16,384	\$16,530	\$16,680	\$16,802	\$16,915	\$17,032	\$17,152	\$17,243	\$17,310	\$17,372	\$17,437	\$17,504	\$17,578	\$17,608	\$17,633	\$17,739
Percent Increase in AV	1.11%	3.61%	4.28%	5.05%	5.98%	6.95%	7.73%	8.46%	9.20%	9.97%	10.56%	10.99%	11.39%	11.80%	12.23%	12.71%	12.90%	13.06%	13.74%
Cumulative MVLFF generated by the Project	\$130,819	\$427,626	\$506,083	\$597,465	\$708,067	\$821,894	\$914,718	\$1,000,412	\$1,089,011	\$1,180,029	\$1,249,385	\$1,300,481	\$1,347,511	\$1,396,568	\$1,447,636	\$1,503,779	\$1,526,076	\$1,545,327	\$1,625,748
<b>Total Annual MVLFF Fees</b>	<b>\$130,819</b>	<b>\$427,626</b>	<b>\$506,083</b>	<b>\$597,465</b>	<b>\$708,067</b>	<b>\$821,894</b>	<b>\$914,718</b>	<b>\$1,000,412</b>	<b>\$1,089,011</b>	<b>\$1,180,029</b>	<b>\$1,249,385</b>	<b>\$1,300,481</b>	<b>\$1,347,511</b>	<b>\$1,396,568</b>	<b>\$1,447,636</b>	<b>\$1,503,779</b>	<b>\$1,526,076</b>	<b>\$1,545,327</b>	<b>\$1,625,748</b>

<sup>1</sup> As presented in the SPA Fiscal Impact Framework

Source: City of Chula Vista and HR&A

**Table A-15  
Estimated Onsite Retail Sales Tax**

Average Est. HH Income <sup>1</sup>	
Single Family Units	\$107,000
Multi Family Units	
MF For Sale	\$70,000
MF Rental	\$70,364

Comprehensive V2 Amendment

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Future Build Out	
<b>Households</b>																					
Single Family Units		247	327	377	447	517	587	604	604	604	604	604	604	604	604	604	604	604	604	604	604
Multi Family Units																					
MF For Sale		111	376	576	776	996	1,216	1,436	1,656	1,876	2,076	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172
MF Rental		323	448	508	568	648	728	808	888	968	1,068	1,183	1,298	1,413	1,528	1,643	1,769	1,769	1,769	1,769	1,769
<b>Total Units</b>		681	1,151	1,461	1,791	2,161	2,531	2,848	3,148	3,448	3,748	3,959	4,074	4,189	4,304	4,419	4,545	4,545	4,545	4,545	4,545
<b>Employees</b>		0	0	0	52	205	357	460	512	565	617	670	797	850	902	954	1,007	1,059	1,059	1,059	1,768
<b>Aggregate HH Income</b>		\$56,926,455	\$92,831,909	\$116,403,727	\$142,115,545	\$170,634,636	\$199,153,727	\$222,001,818	\$243,030,909	\$264,060,000	\$285,096,364	\$299,908,182	\$308,000,000	\$316,091,818	\$324,183,636	\$332,275,455	\$341,141,273	\$341,141,273	\$341,141,273	\$341,141,273	\$341,141,273
<b>Average Annual Income/HH</b>		\$83,592	\$80,653	\$79,674	\$79,350	\$78,961	\$78,686	\$77,950	\$77,202	\$76,584	\$76,066	\$75,754	\$75,601	\$75,458	\$75,321	\$75,192	\$75,059	\$75,059	\$75,059	\$75,059	\$75,059
<b>Countywide Income/HH<sup>2</sup></b>	\$83,935																				
<b>Countywide Retail Exp./HH<sup>3</sup></b>	\$36,583																				
<b>Retail Expenditure/HH Adj. Factor for SPA</b>	100%		96%	95%	95%	94%	94%	93%	92%	91%	91%	90%	90%	90%	90%	90%	89%	89%	89%	89%	89%
<b>Village Two Avg. Retail Expenditure/HH</b>		\$36,434	\$35,153	\$34,726	\$34,585	\$34,415	\$34,295	\$33,975	\$33,649	\$33,379	\$33,154	\$33,017	\$32,951	\$32,888	\$32,829	\$32,773	\$32,714	\$32,714	\$32,714	\$32,714	\$32,714
<b>Gross Retail Sales of Residents</b>																					
Neighborhood Center	33%	\$8,187,811	\$13,352,143	\$16,742,511	\$20,440,677	\$24,542,618	\$28,644,559	\$31,930,832	\$34,955,475	\$37,980,119	\$41,005,808	\$43,136,213	\$44,300,070	\$45,463,928	\$46,627,785	\$47,791,643	\$49,066,826	\$49,066,826	\$49,066,826	\$49,066,826	\$49,066,826
Community Center	20%	4,962,310	8,092,208	10,146,976	12,388,289	14,874,314	17,360,339	19,352,019	21,185,136	23,018,254	24,852,005	26,143,159	26,848,527	27,553,896	28,259,264	28,964,632	29,737,470	29,737,470	29,737,470	29,737,470	29,737,470
Regional Center	4%	992,462	1,618,442	2,029,395	2,477,658	2,974,863	3,472,068	3,870,404	4,237,027	4,603,651	4,970,401	5,228,632	5,369,705	5,510,779	5,651,853	5,792,926	5,947,494	5,947,494	5,947,494	5,947,494	5,947,494
Super Regional Center	7%	1,736,808	2,832,273	3,551,442	4,335,901	5,206,010	6,076,119	6,773,207	7,414,798	8,056,389	8,698,202	9,150,106	9,396,985	9,643,863	9,890,742	10,137,621	10,408,115	10,408,115	10,408,115	10,408,115	10,408,115
Other Centers	36%	8,932,158	14,565,974	18,264,557	22,298,921	26,773,765	31,248,610	34,833,634	38,133,246	41,432,857	44,733,609	47,057,687	48,327,349	49,597,012	50,866,675	52,136,337	53,527,446	53,527,446	53,527,446	53,527,446	53,527,446
<b>Onsite Capture</b>																					
Neighborhood Center	60%	\$4,912,687	\$8,011,286	\$10,045,506	\$12,264,406	\$14,725,571	\$17,186,735	\$19,158,499	\$20,973,285	\$22,788,071	\$24,603,485	\$25,881,728	\$26,580,042	\$27,278,357	\$27,976,671	\$28,674,986	\$29,440,095	\$29,440,095	\$29,440,095	\$29,440,095	\$29,440,095
Community Center	30%	\$1,488,693	\$2,427,662	\$3,044,093	\$3,716,487	\$4,462,294	\$5,208,102	\$5,805,606	\$6,355,541	\$6,905,476	\$7,455,601	\$7,842,948	\$8,054,558	\$8,266,169	\$8,477,779	\$8,689,390	\$8,921,241	\$8,921,241	\$8,921,241	\$8,921,241	\$8,921,241
Regional Center	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Super Regional Center	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Centers	10%	\$893,216	\$1,456,597	\$1,826,456	\$2,229,892	\$2,677,377	\$3,124,861	\$3,483,363	\$3,813,325	\$4,143,286	\$4,473,361	\$4,705,769	\$4,832,735	\$4,959,701	\$5,086,667	\$5,213,634	\$5,352,745	\$5,352,745	\$5,352,745	\$5,352,745	\$5,352,745
<b>Gross Retail Sales from SPA Employees</b>																					
<b>Annual Expenditure/Employee</b>	\$1,175																				
<b>Onsite Capture</b>																					
Neighborhood Center	30%	\$0	\$0	\$0	\$18,490	\$72,231	\$125,971	\$162,086	\$180,577	\$199,067	\$217,558	\$236,048	\$280,976	\$299,466	\$317,957	\$336,447	\$354,937	\$373,428	\$373,428	\$373,428	\$623,048
Community Center	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Regional Center	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Super Regional Center	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Centers	10%	\$0	\$0	\$0	\$6,163	\$24,077	\$41,990	\$54,029	\$60,192	\$66,356	\$72,519	\$78,683	\$93,659	\$99,822	\$105,986	\$112,149	\$118,312	\$124,476	\$124,476	\$124,476	\$207,683
<b>Total Taxable Retail Sales</b>	% Taxable																				
Neighborhood Center	64%	\$3,144,120	\$5,127,223	\$6,429,124	\$7,861,054	\$9,470,593	\$11,080,132	\$12,365,175	\$13,538,472	\$14,711,769	\$15,885,467	\$16,715,376	\$17,191,051	\$17,649,807	\$18,108,562	\$18,567,317	\$19,068,821	\$19,068,821	\$19,068,821	\$19,068,821	\$19,240,412
Community Center	77%	1,146,294	1,869,300	2,343,951	2,861,695	3,435,967	4,010,238	4,470,316	4,893,767	5,317,217	5,740,813	6,039,070	6,202,010	6,364,950	6,527,890	6,690,830	6,869,356	6,869,356	6,869,356	6,869,356	6,869,356
Regional Center	97%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Super Regional Center	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Centers	97%	866,419	1,412,900	1,771,662	2,168,974	2,620,410	3,071,846	3,431,271	3,757,311	4,083,352	4,409,504	4,640,918	4,778,602	4,907,738	5,036,873	5,166,009	5,306,925	5,312,904	5,312,904	5,312,904	5,393,614
<b>Total Taxable Retail Sales</b>		\$5,156,833	\$8,409,423	\$10,544,738	\$12,891,723	\$15,526,969	\$18,162,216	\$20,266,762	\$22,189,549	\$24,112,337	\$26,035,784	\$27,395,364	\$28,171,663	\$28,922,494	\$29,673,325	\$30,424,156	\$31,245,102	\$31,262,914	\$31,262,914	\$31,262,914	\$31,503,382
<b>Annual Sales Taxes to the City @</b>	1%	\$51,568	\$84,094	\$105,447	\$128,917	\$155,270	\$181,622	\$202,668	\$221,895	\$241,123	\$260,358	\$273,954	\$281,717	\$289,225	\$296,733	\$304,242	\$312,451	\$312,629	\$312,629	\$312,629	\$315,034

<sup>1</sup> Derived based on estimate of mortgage payment as 25% of income and 20 percent down.

<sup>2</sup> American Community Survey 2009

<sup>3</sup> Board of Equalization 2009 Annual Data per county capita

Source: City of Chula Vista and HR&A

**Table A-16**  
**Estimated Offsite Retail Sales Tax**

Average Est. HH Income <sup>1</sup>	
Single Family Units	\$107,000
Multi Family Units	
MF For Sale	\$70,000
MF Rental	\$70,364

Comprehensive V2 Amendment

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Future Build Out
<b>Households</b>																			
Single Family Units	247	327	377	447	517	587	604	604	604	604	604	604	604	604	604	604	604	604	604
Multi Family Units																			
MF For Sale	111	376	576	776	996	1,216	1,436	1,656	1,876	2,076	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172	2,172
MF Rental	323	448	508	568	648	728	808	888	968	1,068	1,183	1,298	1,413	1,528	1,643	1,769	1,769	1,769	1,769
MF Mixed Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Units</b>	<b>681</b>	<b>1,151</b>	<b>1,461</b>	<b>1,791</b>	<b>2,161</b>	<b>2,531</b>	<b>2,848</b>	<b>3,148</b>	<b>3,448</b>	<b>3,748</b>	<b>3,959</b>	<b>4,074</b>	<b>4,189</b>	<b>4,304</b>	<b>4,419</b>	<b>4,545</b>	<b>4,545</b>	<b>4,545</b>	<b>4,545</b>
<b>Employees</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>52</b>	<b>205</b>	<b>357</b>	<b>460</b>	<b>512</b>	<b>565</b>	<b>617</b>	<b>670</b>	<b>797</b>	<b>850</b>	<b>902</b>	<b>954</b>	<b>1,007</b>	<b>1,059</b>	<b>1,059</b>	<b>1,768</b>
Aggregate HH Income	\$56,926,455	\$92,831,909	\$116,403,727	\$142,115,545	\$170,634,636	\$199,153,727	\$222,001,818	\$243,030,909	\$264,060,000	\$285,096,364	\$299,908,182	\$308,000,000	\$316,091,818	\$324,183,636	\$332,275,455	\$341,141,273	\$341,141,273	\$341,141,273	\$341,141,273
Average Annual Income/HH	\$83,592	\$80,653	\$79,674	\$79,350	\$78,961	\$78,686	\$77,950	\$77,202	\$76,584	\$76,066	\$75,754	\$75,601	\$75,458	\$75,321	\$75,192	\$75,059	\$75,059	\$75,059	\$75,059
Countywide Income/HH <sup>2</sup>	\$83,935																		
Countywide Retail Exp./HH <sup>3</sup>	\$36,583																		
Retail Expenditure/HH Adj. Factor for SPA	100%	96%	95%	95%	94%	94%	93%	92%	91%	91%	90%	90%	90%	90%	90%	89%	89%	89%	89%
Project Avg. Retail Expenditure/HH	\$36,434	\$35,152,95	\$34,726	\$34,585	\$34,415	\$34,295	\$33,975	\$33,649	\$33,379	\$33,154	\$33,017	\$32,951	\$32,888	\$32,829	\$32,773	\$32,714	\$32,714	\$32,714	\$32,714
<b>Gross Retail Sales of Residents</b>																			
Neighborhood Center	33%	\$8,187,811	\$13,352,143	\$16,742,511	\$20,440,677	\$24,542,618	\$28,644,559	\$31,930,832	\$34,955,475	\$37,980,119	\$41,005,808	\$43,136,213	\$44,300,070	\$45,463,928	\$46,627,785	\$47,791,643	\$49,066,826	\$49,066,826	\$49,066,826
Community Center	20%	4,962,310	8,092,208	10,146,976	12,388,289	14,874,314	17,360,339	19,352,019	21,185,136	23,018,254	24,852,005	26,143,159	26,848,527	27,553,896	28,259,264	28,964,632	29,737,470	29,737,470	29,737,470
Regional Center	4%	992,462	1,618,442	2,029,395	2,477,658	2,974,863	3,472,068	3,870,404	4,237,027	4,603,651	4,970,401	5,228,632	5,369,705	5,510,779	5,651,853	5,792,926	5,947,494	5,947,494	5,947,494
Super Regional Center	7%	1,736,808	2,832,273	3,551,442	4,335,901	5,206,010	6,076,119	6,773,207	7,414,798	8,056,389	8,698,202	9,150,106	9,396,985	9,643,863	9,890,742	10,137,621	10,408,115	10,408,115	10,408,115
Other Centers	36%	8,932,158	14,565,974	18,264,557	22,298,921	26,773,765	31,248,610	34,833,634	38,133,246	41,432,857	44,733,609	47,057,687	48,327,349	49,597,012	50,866,675	52,136,337	53,527,446	53,527,446	53,527,446
<b>Off Site Share</b>																			
Neighborhood Center	40%	\$0	\$5,340,857	\$6,697,004	\$8,176,271	\$9,817,047	\$11,457,823	\$12,772,333	\$13,982,190	\$15,192,047	\$16,402,323	\$17,254,485	\$17,720,028	\$18,185,571	\$18,651,114	\$19,116,657	\$19,626,730	\$19,626,730	\$19,626,730
Community Center	70%	\$0	\$5,664,546	\$7,102,883	\$8,671,803	\$10,412,020	\$12,152,237	\$13,546,413	\$14,829,595	\$16,112,778	\$17,396,403	\$18,300,211	\$18,793,969	\$19,287,727	\$19,781,485	\$20,275,242	\$20,816,229	\$20,816,229	\$20,816,229
Regional Center	100%	\$0	\$1,618,442	\$2,029,395	\$2,477,658	\$2,974,863	\$3,472,068	\$3,870,404	\$4,237,027	\$4,603,651	\$4,970,401	\$5,228,632	\$5,369,705	\$5,510,779	\$5,651,853	\$5,792,926	\$5,947,494	\$5,947,494	\$5,947,494
Super Regional Center	100%	\$1	\$2,832,273	\$3,551,442	\$4,335,901	\$5,206,010	\$6,076,119	\$6,773,207	\$7,414,798	\$8,056,389	\$8,698,202	\$9,150,106	\$9,396,985	\$9,643,863	\$9,890,742	\$10,137,621	\$10,408,115	\$10,408,115	\$10,408,115
Other Centers	90%	\$32,791	\$13,109,377	\$16,438,101	\$20,069,029	\$24,096,389	\$28,123,749	\$31,350,271	\$34,319,921	\$37,289,571	\$40,260,248	\$42,351,918	\$43,494,614	\$44,637,311	\$45,780,007	\$46,922,704	\$48,174,702	\$48,174,702	\$48,174,702
<b>Chula Vista Capture</b>																			
Neighborhood Center	80%	\$6,550,249	\$4,272,686	\$5,357,603	\$6,541,017	\$7,853,638	\$9,166,259	\$10,217,866	\$11,185,752	\$12,153,638	\$13,121,859	\$13,803,588	\$14,176,022	\$14,548,457	\$14,920,891	\$15,293,326	\$15,701,384	\$15,701,384	\$15,701,384
Community Center	80%	\$3,969,848	\$4,531,636	\$5,682,307	\$6,937,442	\$8,329,616	\$9,721,790	\$10,837,131	\$11,863,676	\$12,890,222	\$13,917,123	\$14,640,169	\$15,035,175	\$15,430,182	\$15,825,188	\$16,220,194	\$16,652,983	\$16,652,983	\$16,652,983
Regional Center	70%	\$694,723	\$1,132,909	\$1,420,577	\$1,734,361	\$2,082,404	\$2,430,447	\$2,709,283	\$2,965,919	\$3,222,556	\$3,479,281	\$3,660,042	\$3,758,794	\$3,857,545	\$3,956,297	\$4,055,048	\$4,163,246	\$4,163,246	\$4,163,246
Super Regional Center	60%	\$1,042,085	\$1,699,364	\$2,130,865	\$2,601,541	\$3,123,606	\$3,645,671	\$4,063,924	\$4,448,879	\$4,833,833	\$5,218,921	\$5,490,063	\$5,638,191	\$5,786,318	\$5,934,445	\$6,082,573	\$6,244,869	\$6,244,869	\$6,244,869
Other Centers	40%	\$3,572,863	\$5,243,751	\$6,575,241	\$8,027,611	\$9,638,555	\$11,249,499	\$12,540,108	\$13,727,968	\$14,915,828	\$16,104,099	\$16,940,767	\$17,397,846	\$17,854,924	\$18,312,003	\$18,769,081	\$19,269,881	\$19,269,881	\$19,269,881

**Table A-16 (Cont.)  
Estimated Offsite Retail Sales Tax**

Average Est. HH Income <sup>1</sup>	
Single Family Units	\$107,000
Multi Family Units	
MF For Sale	\$70,000
MF Rental	\$70,364

Comprehensive V2 Amendment

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Future Build Out
<b>Gross Retail Sales from SPA Employees</b>																				
Annual Expenditure/Employee	\$1,175																			
<u>Offsite Spending</u>																				
Neighborhood Center	25%	\$0	\$0	\$0	\$15,409	\$60,192	\$104,976	\$135,072	\$150,481	\$165,889	\$181,298	\$196,707	\$234,147	\$249,555	\$264,964	\$280,372	\$295,781	\$311,190	\$311,190	\$519,206
Community Center	20%	0	0	0	12,327	48,154	83,981	108,058	120,385	132,711	145,038	157,365	187,317	199,644	211,971	224,298	236,625	248,952	248,952	415,365
Regional Center	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Super Regional Center	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Centers	15%	0	0	0	9,245	36,115	62,986	81,043	90,288	99,534	108,779	118,024	140,488	149,733	158,978	168,223	177,469	186,714	186,714	311,524
<u>Chula Vista Capture</u>																				
Neighborhood Center	80%	\$0	\$0	\$0	\$12,327	\$48,154	\$83,981	\$108,058	\$120,385	\$132,711	\$145,038	\$157,365	\$187,317	\$199,644	\$211,971	\$224,298	\$236,625	\$248,952	\$248,952	\$415,365
Community Center	80%	\$0	\$0	\$0	\$9,862	\$38,523	\$67,185	\$86,446	\$96,308	\$106,169	\$116,031	\$125,892	\$149,854	\$159,715	\$169,577	\$179,438	\$189,300	\$199,161	\$199,161	\$332,292
Regional Center	70%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Super Regional Center	60%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Centers	40%	\$0	\$0	\$0	\$3,698	\$14,446	\$25,194	\$32,417	\$36,115	\$39,813	\$43,512	\$47,210	\$56,195	\$59,893	\$63,591	\$67,289	\$70,987	\$74,686	\$74,686	\$124,610
<u>Taxable Retail Sales</u>	% Taxable																			
Neighborhood Center	64%	\$4,192,159	\$2,734,519	\$3,428,866	\$4,194,140	\$5,057,147	\$5,920,153	\$6,608,591	\$7,235,927	\$7,863,264	\$8,490,814	\$8,935,010	\$9,192,537	\$9,438,784.64	\$9,685,032	\$9,931,279.12	\$10,200,326	\$10,208,215.05	\$10,208,215	\$10,314,720
Community Center	77%	\$3,056,783	\$3,489,360	\$4,375,376	\$5,349,424	\$6,443,467	\$7,537,510	\$8,411,154	\$9,209,188	\$10,007,221	\$10,805,528	\$11,369,867	\$11,692,472	\$12,004,221	\$12,315,969	\$12,627,717	\$12,968,558	\$12,976,151	\$12,976,151	\$13,078,662
Regional Center	97%	\$673,882	\$1,098,922	\$1,377,959	\$1,682,330	\$2,019,932	\$2,357,534	\$2,628,004	\$2,876,942	\$3,125,879	\$3,374,902	\$3,550,241	\$3,646,030	\$3,741,819	\$3,837,608	\$3,933,397	\$4,038,348	\$4,038,348	\$4,038,348	\$4,038,348
Super Regional Center	100%	\$1,042,085	\$1,699,364	\$2,130,865	\$2,601,541	\$3,123,606	\$3,645,671	\$4,063,924	\$4,448,879	\$4,833,833	\$5,218,921	\$5,490,063	\$5,638,191	\$5,786,318	\$5,934,445	\$6,082,573	\$6,244,869	\$6,244,869	\$6,244,869	\$6,244,869
Other Centers	97%	\$3,465,677	\$5,086,438	\$6,377,983	\$7,790,370	\$9,363,412	\$10,936,453	\$12,195,350	\$13,351,161	\$14,506,973	\$15,663,182	\$16,478,337	\$16,930,420	\$17,377,373	\$17,824,326	\$18,271,280	\$18,760,642	\$18,764,229	\$18,764,229	\$18,812,655
Total Taxable Retail Sales		\$12,430,586	\$14,108,603	\$17,691,050	\$21,617,804	\$26,007,563	\$30,397,321	\$33,907,024	\$37,122,097	\$40,337,170	\$43,553,348	\$45,823,519	\$47,099,650	\$48,348,515	\$49,597,380	\$50,846,245	\$52,212,743	\$52,231,813	\$52,231,813	\$52,489,254
<b>Annual Sales Taxes to the City @</b>	<b>1%</b>	<b>\$124,306</b>	<b>\$141,086</b>	<b>\$176,911</b>	<b>\$216,178</b>	<b>\$260,076</b>	<b>\$303,973</b>	<b>\$339,070</b>	<b>\$371,221</b>	<b>\$403,372</b>	<b>\$435,533</b>	<b>\$458,235</b>	<b>\$470,997</b>	<b>\$483,485</b>	<b>\$495,974</b>	<b>\$508,462</b>	<b>\$522,127</b>	<b>\$522,318</b>	<b>\$522,318</b>	<b>\$524,893</b>

<sup>1</sup>Derived based on estimate of mortgage payment as 25% of income and 20 percent down.

<sup>2</sup>American Community Survey 2009

<sup>3</sup>Board of Equalization 2009 Annual Data per county capita

Source: City of Chula Vista and HR&A

**Table A-17**  
**Village Two Amendment - Revenue Summary (2009 \$)**

		Comprehensive V2 Amendment																		Future
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
<b>Revenue Drivers</b>																				
Population(Persons)		2,206	3,729	4,734	5,803	7,002	8,200	9,228	10,200	11,172	12,144	12,827	13,200	13,572	13,945	14,318	14,726	14,726	14,726	14,726
Private Employment (Employees)		0	0	0	52	205	357	460	512	565	617	670	797	850	902	954	1,007	1,059	1,059	1,768
Dwelling Units		681	1,151	1,461	1,791	2,161	2,531	2,848	3,148	3,448	3,748	3,959	4,074	4,189	4,304	4,419	4,545	4,545	4,545	4,545
Retail Commercial (SF)		0	0	0	0	40,000	80,000	100,000	100,000	100,000	100,000	100,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Industrial Land (Acres)		0.0	0.0	0.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	42.0	82.5
Residential Land (Acres)		42.7	87.9	117.0	151.8	188.9	226.0	248.1	265.5	282.8	300.1	312.3	318.9	325.6	332.2	338.8	346.1	346.1	346.1	346.1
<b>Annual Revenues</b>																				
<i>Revenue Adjustment Factor</i>		<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>	<i>115%</i>
		<b>Revenue Factors</b>																		
Population(Persons)		\$3.86	\$9,791	\$16,548	\$21,005	\$25,750	\$31,069	\$36,389	\$40,946	\$45,259	\$49,573	\$53,886	\$56,919	\$58,573	\$60,226	\$61,880	\$63,533	\$65,344	\$65,344	\$65,344
Private Employment (Employees)		\$19.45	\$0	\$0	\$1,173	\$4,581	\$7,989	\$10,279	\$11,452	\$12,624	\$13,797	\$14,969	\$17,819	\$18,991	\$20,164	\$21,336	\$22,509	\$23,682	\$23,682	\$39,512
Dwelling Units		\$3.60	\$2,815	\$4,758	\$6,040	\$7,404	\$8,933	\$10,463	\$11,773	\$13,014	\$14,254	\$15,494	\$16,366	\$16,842	\$17,317	\$17,792	\$18,268	\$18,789	\$18,789	\$18,789
Retail Commercial (SF)		\$0.07	\$0	\$0	\$0	\$3,107	\$6,213	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$10,097	\$10,097	\$10,097	\$10,097	\$10,097	\$10,097	\$10,097	\$10,097
Industrial (Acres)		\$744.34	\$0	\$0	\$2,566	\$5,132	\$7,698	\$10,265	\$12,831	\$15,397	\$17,963	\$20,529	\$23,095	\$25,661	\$28,228	\$30,794	\$33,360	\$35,926	\$35,926	\$70,569
Residential Land (Acres)		\$1,569.01	\$77,028	\$158,405	\$210,956	\$273,705	\$340,616	\$407,528	\$447,419	\$478,644	\$509,868	\$541,093	\$563,054	\$575,024	\$586,993	\$598,962	\$610,932	\$624,046	\$624,046	\$624,046
Property Taxes		\$183,410	\$183,410	\$599,537	\$709,535	\$837,654	\$992,719	\$1,152,306	\$1,282,446	\$1,402,590	\$1,526,807	\$1,654,415	\$1,751,653	\$1,823,291	\$1,889,227	\$1,958,006	\$2,029,604	\$2,108,317	\$2,139,578	\$2,279,319
Property Transfer Taxes		\$95,332	\$95,332	\$223,854	\$83,493	\$98,206	\$118,222	\$127,575	\$119,609	\$119,980	\$127,460	\$134,869	\$124,546	\$115,027	\$114,274	\$117,830	\$121,482	\$127,469	\$105,365	\$150,492
MVLV Revenues		\$130,819	\$427,626	\$506,083	\$597,465	\$708,067	\$821,894	\$914,718	\$1,000,412	\$1,089,011	\$1,180,029	\$1,249,385	\$1,300,481	\$1,347,511	\$1,396,568	\$1,447,636	\$1,503,779	\$1,526,076	\$1,545,327	\$1,625,748
Sales and Use Tax		\$175,874	\$225,180	\$282,358	\$345,095	\$415,345	\$485,595	\$541,738	\$593,116	\$644,495	\$695,891	\$732,189	\$752,713	\$772,710	\$792,707	\$812,704	\$834,578	\$834,947	\$834,947	\$839,926
<b>Total Annual Revenues</b>		<b>\$675,068</b>	<b>\$1,111,258</b>	<b>\$1,849,833</b>	<b>\$2,046,185</b>	<b>\$2,452,710</b>	<b>\$2,894,710</b>	<b>\$3,264,785</b>	<b>\$3,564,549</b>	<b>\$3,865,558</b>	<b>\$4,180,186</b>	<b>\$4,450,462</b>	<b>\$4,630,841</b>	<b>\$4,777,824</b>	<b>\$4,929,898</b>	<b>\$5,091,135</b>	<b>\$5,263,588</b>	<b>\$5,374,692</b>	<b>\$5,403,101</b>	<b>\$5,723,842</b>

Source: HR&A



**Table A-18**  
**Net Fiscal Impacts**  
**Village Two Amendment**

CPI ( San Diego Area)<sup>1</sup>  
 258.96  
 242.27

	Comprehensive V2 Amendment																		
	Year 0	2014 Year 1	2015 Year 2	2016 Year 3	2017 Year 4	2018 Year 5	2019 Year 6	2020 Year 7	2021 Year 8	2022 Year 9	2023 Year 10	2024 Year 11	2025 Year 12	2026 Year 13	2027 Year 14	2028 Year 15	2029 Year 16	2030 Year 17	Future Build Out
<i>2014 Dollar Inflation Factor</i>	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069
Total Expenditures	\$762,848	\$1,296,660	\$1,648,457	\$2,033,234	\$2,530,553	\$3,027,872	\$3,495,883	\$3,839,754	\$4,183,626	\$4,559,057	\$4,803,440	\$4,991,381	\$5,128,451	\$5,265,520	\$5,402,590	\$5,551,957	\$5,560,474	\$5,560,474	\$5,688,890
Total Revenues	\$721,560	\$1,187,790	\$1,977,230	\$2,187,104	\$2,621,626	\$3,094,067	\$3,489,629	\$3,810,038	\$4,131,777	\$4,468,073	\$4,756,963	\$4,949,765	\$5,106,870	\$5,269,417	\$5,441,759	\$5,626,089	\$5,744,845	\$5,775,210	\$6,118,040
<b>Net Fiscal Impacts (2014 Dollars)</b>	<b>(\$41,288)</b>	<b>(\$108,870)</b>	<b>\$328,773</b>	<b>\$153,870</b>	<b>\$91,073</b>	<b>\$66,195</b>	<b>(\$6,254)</b>	<b>(\$29,716)</b>	<b>(\$51,849)</b>	<b>(\$90,984)</b>	<b>(\$46,477)</b>	<b>(\$41,616)</b>	<b>(\$21,580)</b>	<b>\$3,897</b>	<b>\$39,168</b>	<b>\$74,132</b>	<b>\$184,370</b>	<b>\$214,735</b>	<b>\$429,149</b>

<sup>1</sup>Bureau of Labor Statistics

Source: HR&A

## Appendix B

Base V2 SPA

**Table B-1**  
**Proposed Land Uses**

Land Use	Base Village 2		Amended Village 2	
	SPA		SPA	
Single Family Residential Units	674	(159.8 Ac.)	604	(120.7 Ac.)
<i>Baldwin &amp; Sons (B&amp;S) Product</i>	451	(112.1 Ac.)	381	(73.0 Ac.)
<i>Other Developers</i>	223	(47.7 Ac.)*	223	(47.7 Ac.)*
Multi-Family Residential Units	2,309	(174.30 Ac.)	3,941	(225.40 Ac.)
<i>B&amp; S MF - For Sale</i>	1,037	(86.8 Ac.)	1,711	(109.0 Ac.)
<i>B&amp;S MF - Rental</i>	325	(23.6 Ac.)	930.0	(38.5 Ac.)
<i>B&amp; S Mixed Use (Rental)</i>	60	(8.5 Ac.)	413	(22.5 Ac.)
<i>Other Developer - MF For Sale</i>	461	(39.2 Ac.)*	461	(39.2 Ac.)*
<i>Other Developer Rental</i>	426	(16.2 Ac.)*	426	(16.2 Ac.)*
Industrial Acres	94.40		82.50	
Mixed Use and Commercial SF	130,000		130,000	
<i>Mixed Use Retail SF ( MU1- MU3)</i>	30,000		30,000	
<i>Shopping Center Retail SF</i>	100,000	(12.5 Ac.)	100,000	
Park Acres <sup>1</sup>	58.7		70.9	
<i>Park Acres Attributable to Other Villages</i>	31.6		31.6	
<i>Park in Lieu Fee Acres</i>	0.0		0.262	
<i>Park Acres Attributed to Village 2</i>	27.1		39.0	
CPF	6.30		12.6	
School	10.3		19.8	
Public Safety	0.0		0.0	
<b>Subtotal Developed Acres<sup>2</sup></b>	<b>469.8</b>		<b>485.4</b>	
Open Space	204.6		212.9	
Other Acres/ROW	59.5		63.5	
Future Development Acres <sup>3</sup>	31.9		4.0	
<b>Total Acres</b>	<b>765.8</b>		<b>765.8</b>	
<b>Population</b>				
Single Family Persons/DU@	3.24	2,184	1,957	
Multi Family Persons/DU@	3.24	7,481	12,769	
<b>Total Est. Population</b>		<b>9,665</b>	<b>14,726</b>	
<b>Employment</b>				
	Employees Per Unit			
Retail SF/Emp	400 Per SF	325	325	
General Industrial	12.3 Per Ac.	466	408	
Research/Limited Industrial	20.9 Per Ac.	1,184	1,035	
<b>Total Est. Employment</b>		<b>1,976</b>	<b>1,768</b>	

<sup>1</sup>Park acres include 46.5 acres of park requirement that will be satisfied in Village 4.

<sup>2</sup>Excludes the park acres that will be satisfied in Village 4.

<sup>3</sup>Evaluated as Open Space for purposes of this analysis.

\*Other developers hold 1,110 dwelling units. The Developer estimated the distribution of acres based on existing units.

Source: Developers, City of Chula Vista and HR&A

**Table B-2**  
**Land Use Absorption**

Base V2 SPA

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
<b>Cumulative Land Use Program</b>																			
Single Family Residential Units	247	327	377	447	517	587	657	674	674	674	674	674	674	674	674	674	674	674	674
Multi-Family Residential Units	434	824	1,084	1,344	1,644	1,944	2,244	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309
MF For Sale	111	376	576	776	996	1,216	1,436	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498
MF Rental (includes Multi-Use Residential)	323	448	508	568	648	728	808	811	811	811	811	811	811	811	811	811	811	811	811
Industrial Acres	0.0	0.0	0.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	42.0	94.4
Retail Commercial SF	0	0	0	0	40,000	80,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	130,000
Parks	7.5	17.6	24.2	31.9	40.2	48.5	56.8	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
Park Acres Attributable to Village 2	3.5	8.1	11.2	14.7	18.6	22.4	26.2	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1
CPF	0.00	0.00	0.00	0.00	0.00	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
School	0.0	0.0	0.0	0.0	0.0	0.0	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
Public Safety	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Subtotal Developed Acres</i>	<i>44.3</i>	<i>104.1</i>	<i>142.9</i>	<i>191.4</i>	<i>247.1</i>	<i>309.2</i>	<i>373.3</i>	<i>387.5</i>	<i>390.5</i>	<i>393.5</i>	<i>396.5</i>	<i>399.5</i>	<i>402.5</i>	<i>405.5</i>	<i>408.5</i>	<i>411.5</i>	<i>414.5</i>	<i>414.5</i>	<i>469.8</i>
Open Space	19.3	45.3	62.2	83.4	107.6	134.6	162.6	168.8	170.1	171.4	172.7	174.0	175.3	176.6	177.9	179.2	180.5	180.5	204.6
Other Acres/ROW	5.6	13.2	18.1	24.2	31.3	39.2	47.3	49.1	49.5	49.8	50.2	50.6	51.0	51.4	51.7	52.1	52.5	52.5	59.5
Future Development Acres	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.9
<b>Total Acres</b>	<b>69.2</b>	<b>162.6</b>	<b>223.2</b>	<b>299.0</b>	<b>386.1</b>	<b>483.0</b>	<b>583.1</b>	<b>605.4</b>	<b>610.0</b>	<b>614.7</b>	<b>619.4</b>	<b>624.1</b>	<b>628.8</b>	<b>633.5</b>	<b>638.2</b>	<b>642.9</b>	<b>647.5</b>	<b>647.5</b>	<b>765.8</b>
<b>Cumulative Population</b>																			
Single Family Persons/DU@	3.24	800	1,059	1,221	1,448	1,675	1,902	2,129	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184	2,184
Multi Family Persons/DU@	3.24	1,406	2,670	3,512	4,355	5,327	6,299	7,271	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481	7,481
Total Est. Population	2,206	3,729	4,734	5,803	7,002	8,200	9,399	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665
<b>Cumulative Employment</b>																			
Retail SF/Emp@	400	0	0	0	100	200	250	250	250	250	250	250	250	250	250	250	250	250	325
General Industrial, Emp/Acre	12	0	0	0	15	30	44	59	74	89	104	119	133	148	163	178	193	207	466
Research Industrial, Emp/Acre	21	0	0	0	38	75	113	151	188	226	263	301	339	376	414	452	489	527	1,184
Total Est. Employment	0	0	0	52	205	357	460	512	565	617	670	722	775	827	879	932	984	984	1,976

Source: Developer and HR&A

**Table B-3****Employment Density Calculation**

<b>Land Use</b>	<b>FAR Estimate</b>	<b>Units Per Acre</b>	<b>Employment Factor</b>	<b>Building Efficiency</b>	<b>Occupancy Rate</b>	<b>Employees/Acre</b>
Retail	0.30 FAR	13,068	400 SF/Emp	80%	90%	23.52
Office	0.80 FAR	34,848	250 SF/Emp	80%	90%	100.36
General Industrial	0.35 FAR	15,246	1000 SF/Emp	90%	90%	12.35
Research/Limited Industrial	0.40 FAR	17,424	600 SF/Emp	80%	90%	20.91

Source: City of Chula Vista, CoStar, and HR&amp;A

**Table B-4****Commercial Assessed Value Calculation**

<b>Commercial Land Uses</b>	<b>FAR Estimate</b>	<b>Units Per Acre</b>	<b>Mo. Rent /SF</b>	<b>Building Efficiency</b>	<b>Occupancy Rate</b>	<b>Admin /Vacancy Cost</b>	<b>Net Income/SF</b>	<b>Cap Rate</b>	<b>Assessed Value Per Unit</b>
Mixed Use Retail			\$1.85	80%	90%	5%	\$15.18	8.00%	\$189.81 Per SF
Shopping Center Retail	0.30 FAR	13,068 SF	\$2.25	80%	90%	5%	\$18.47	8.00%	\$230.85 Per SF
Office	0.80 FAR	34,848 SF	\$2.00	80%	90%	20%	\$13.82	7.50%	\$6,423,183 Per Acre
General Industrial	0.35 FAR	15,246 SF	\$0.60	90%	90%	10%	\$5.25	7.75%	\$1,032,557 Per Acre
Research/Limited Industrial	0.40 FAR	17,424 SF	\$0.95	80%	90%	10%	\$7.39	7.75%	\$1,660,833 Per Acre

Source: CoStar, CB Richard Ellis Cap Rate Survey, Developers and HR&amp;A

**Table B-5**  
**Chula Vista - Expenditure Real Inflation Adjustment<sup>1</sup>**

	2005	2006	2007	2008	2009	5 Year Average
Population	216,961	223,604	227,850	231,157	234,011	
Households	70,916	73,365	74,527	75,259	75,752	
City Staff	1,169	1,227	1,264	1,249	1,110	
Revenues (Actuals)	\$137,763,583	\$157,809,965	\$161,564,721	\$153,938,093	\$140,502,938	
Expenditures (Actuals)	\$142,195,531	\$160,826,968	\$166,056,406	\$155,021,736	\$140,365,277	
CPI (San Diego Area)	220.6	228.1	233.3	242.3	242.3	
Expenditure/Capita	\$655.40	\$719.25	\$728.80	\$670.63	\$599.82	
Revenues/Capita	\$634.97	\$705.76	\$709.08	\$665.95	\$600.41	
2009 CPI Adjustment Factor	1.10	1.06	1.04	1.00	1.00	
Exp/Cap in 2009 Dollars	\$719.87	\$764.02	\$756.91	\$670.63	\$599.82	
Rev/Cap in 2009 Dollars	\$697.43	\$749.69	\$736.44	\$665.95	\$600.41	
Expenditure Adjustment Factor	120%	127%	126%	112%	100%	117%
Revenue Adjustment Factor (Relative to 2009 Levels)	116%	125%	123%	111%	100%	115%

<sup>1</sup> Provided by the City of Chula Vista

Source: City of Chula Vista and HR&A

**Table B-6**  
**Citywide Cost Factors by Function/Department<sup>1</sup>**

	Population (Per Person)	Retail (Per Acre)	Office (Per Acre)	Hotel (Per Acre)	Industrial (Per Acre)	Land Uses Parks ( per acre)		Public Use (Per Acre)	Open Space (Per Acre)	Other (Per Acre)	Residential (Per DU)
						Private	Public				
<b>Legislative and Administration</b>											
City Council	\$2.00										
<b>Boards and Commissions</b>											
City Clerk	\$1.37										
City Attorney		\$80.11	\$86.52	\$51.21	\$21.13						\$12.11
Administration	\$0.29										\$0.35
Management and Information Services	\$4.60										
Human Resources											
<b>Development and Maintenance Services</b>											
Economic Development Function	\$0.00	\$301.43	\$325.55	\$192.68	\$79.51					\$0.00	
Planning and Building Services	\$0.00	\$203.44	\$219.57	\$130.70	\$55.00					\$31.70	\$30.69
Engineering		\$274.44	\$145.29	\$64.57	\$27.44		\$15.53			\$16.85	\$3.07
Public Works		\$5,914.17	\$3,131.03	\$1,391.57	\$591.42		\$69.58	\$347.89		\$347.89	\$68.43
General Services											
<b>Public Safety</b>											
Police (Excluding Residential)	\$11.01	\$6,836.27	\$6,836.27	\$6,836.27	\$1,006.09		\$2,202.49	\$2,202.49		\$2,202.49	
Fire (Excluding Residential)	\$1.05	\$2,917.22	\$2,917.22	\$2,917.22	\$396.88	\$160.46	\$160.46	\$160.46	\$160.46	\$160.46	
<b>Culture and Leisure</b>											
Parks and Recreation	\$18.90										
Library	\$37.32										\$4.77
Nature Center											
<b>Sub-Total Unit Cost</b>	<b>\$76.53</b>	<b>\$16,527.08</b>	<b>\$13,661.45</b>	<b>\$11,584.21</b>	<b>\$2,177.48</b>	<b>\$160.46</b>	<b>\$2,448.06</b>	<b>\$2,710.85</b>	<b>\$160.46</b>	<b>\$2,759.40</b>	<b>\$119.40</b>
<b>Acre to SF Density Adjustment Factors</b>		<b>0.00008</b>									
<b>Total - Density Adjusted Unit Costs</b>	<b>\$76.53</b>	<b>\$1.36</b>	<b>\$13,661.45</b>	<b>\$11,584.21</b>	<b>\$2,177.48</b>	<b>\$160.46</b>	<b>\$2,448.06</b>	<b>\$2,710.85</b>	<b>\$160.46</b>	<b>\$2,759.40</b>	<b>\$119.40</b>

<sup>1</sup>All Cost Factors and Subtotal Cost factors provided by the City

Source: City of Chula Vista and HR&A

**Table B-7  
Dwelling Unit Public Safety Costs**

Base V2 SPA

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out	
Project Residential Units	681	1,151	1,461	1,791	2,161	2,531	2,901	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983
<u>Current Service Costs</u>																				
Police Service Costs/ DU	\$293.70																			
Fire Service Costs/ DU	\$210.64																			
<u>Annual Public Safety (Allocated to Project Dwelling Units)</u>																				
Police	\$200,010	\$338,049	\$429,096	\$526,017	\$634,686	\$743,355	\$852,024	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107	\$876,107
Fire	\$143,446	\$242,447	\$307,745	\$377,256	\$455,193	\$533,130	\$611,067	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339	\$628,339
<b>Total Annual Public Safety Costs</b>	<b>\$343,456</b>	<b>\$580,495</b>	<b>\$736,841</b>	<b>\$903,273</b>	<b>\$1,089,879</b>	<b>\$1,276,485</b>	<b>\$1,463,090</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>	<b>\$1,504,446</b>

Source: City of Chula Vista and HR&A



**Table B-8**  
**Base Village Two SPA - Expenditure Summary (2009 \$)**

		Base V2 SPA																			Future	
Expense Drivers	Unit Cost	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Incremental Development	Build Out	
Dwelling Units		681	1,151	1,461	1,791	2,161	2,531	2,901	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983
Population		2,206	3,729	4,734	5,803	7,002	8,200	9,399	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665
Retail (SF)		0	0	0	0	40,000	80,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	130,000	130,000
Industrial Acres		0.0	0.0	0.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	42.0	42.0	94.4	94.4
Park Acres		3.5	8.1	11.2	14.7	18.6	22.4	26.2	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1
Open Space & ROW Acres <sup>1</sup>		24.9	58.5	80.3	107.6	138.9	173.8	209.9	217.8	219.5	221.2	222.9	224.6	226.3	228.0	229.6	231.3	233.0	233.0	233.0	296.0	296.0
Public Use Acres (School and Public Safety)		0.0	0.0	0.0	0.0	0.0	6.3	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
Expenditure Adjustment Factor		117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%
Retail (SF)	\$1.36	\$0	\$0	\$0	\$0	\$63,457	\$126,914	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$158,643	\$206,235	\$206,235
Industrial (Acres)	\$2,177.48	\$0	\$0	\$0	\$7,648	\$15,296	\$22,944	\$30,592	\$38,240	\$45,888	\$53,536	\$61,184	\$68,832	\$76,479	\$84,127	\$91,775	\$99,423	\$107,071	\$107,071	\$107,071	\$240,655	\$240,655
Park (Acres)	\$2,448.06	\$9,932	\$23,349	\$32,040	\$42,256	\$53,223	\$64,189	\$75,156	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672	\$77,672
Population (Persons)	\$76.53	\$197,688	\$334,125	\$424,115	\$519,911	\$627,319	\$734,726	\$842,134	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938	\$865,938
Open Space & ROW (Acres)	\$160.46	\$4,676	\$10,994	\$15,086	\$20,213	\$26,100	\$32,652	\$39,423	\$40,924	\$41,241	\$41,558	\$41,875	\$42,192	\$42,509	\$42,825	\$43,142	\$43,459	\$43,776	\$43,776	\$43,776	\$55,607	\$55,607
Public Use (Acres)	\$2,710.85	\$0	\$0	\$0	\$0	\$0	\$19,995	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684	\$52,684
Expenditures Allocated to DUs (excluding Public Safety)	\$119.40	\$95,200	\$160,904	\$204,240	\$250,372	\$302,096	\$353,821	\$405,545	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008	\$417,008
Public Safety Costs Allocated to DUs		\$402,106	\$679,624	\$862,667	\$1,057,520	\$1,275,992	\$1,494,463	\$1,712,935	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353	\$1,761,353
<b>Total Est. Annual Expenditures (2009 Dollars)</b>		<b>\$709,602</b>	<b>\$1,208,995</b>	<b>\$1,538,149</b>	<b>\$1,897,921</b>	<b>\$2,363,482</b>	<b>\$2,849,704</b>	<b>\$3,317,111</b>	<b>\$3,412,461</b>	<b>\$3,420,426</b>	<b>\$3,428,391</b>	<b>\$3,436,355</b>	<b>\$3,444,320</b>	<b>\$3,452,285</b>	<b>\$3,460,250</b>	<b>\$3,468,214</b>	<b>\$3,476,179</b>	<b>\$3,484,144</b>	<b>\$3,484,144</b>	<b>\$3,677,152</b>	<b>\$3,677,152</b>	<b>\$3,677,152</b>

<sup>1</sup>Includes Future Development Acres  
Source: HR&A

**Table B-9**  
**City of Chula Vista - Discretionary Revenues (Based on the FY 2009 Amended Budget)**

Non-Departmental Revenue Categories	Discretionary Revenues		Program Revenues (Estimate)	Net Revenues	Revenue Distribution	
	Amended	Budget 2009			Fixed Revenues	Variable Revenues
<b>Property Taxes</b>						
Current Taxes - Secured		\$28,363,165		\$28,363,165		\$28,363,165
State Secured - Unitary		\$300,000		\$300,000		\$300,000
Current Taxes - Unsecured		\$979,200		\$979,200		\$979,200
Delinquent Taxes		\$590,000		\$590,000		\$590,000
<i>Subtotal</i>		\$30,232,365	\$0	\$30,232,365	\$0	\$30,232,365
<b>Other Local Taxes</b>						
Sales and Use Taxes		\$29,677,977		\$29,677,977		\$29,677,977
Franchise Fees		\$8,732,093		\$8,732,093		\$8,732,093
Utility Taxes		\$7,122,095		\$7,122,095		\$7,122,095
Business License Tax		\$1,322,847		\$1,322,847		\$1,322,847
Transient Occupancy Taxes		\$2,752,514		\$2,752,514		\$2,752,514
Real Property Transfer Tax		\$841,402		\$841,402		\$841,402
<i>Subtotal</i>		\$50,448,928	\$0	\$50,448,928	\$0	\$50,448,928
<b>Use of Money and Property</b>						
<i>Subtotal</i>		\$4,163,212	\$0	\$4,163,212	\$4,163,212	\$0
<b>Revenues from other Agencies</b>						
Sales Tax: Public Safety Augment		\$875,347		\$875,347		\$875,347
State Homeowners Property Tax Relief		\$282,800		\$282,800		\$282,800
State Motor Vehicle Licenses		\$20,215,866		\$20,215,866		\$20,215,866
Other Revenues from other Agencies		\$4,324,532		\$4,324,532		\$4,324,532
<i>Subtotal</i>		\$25,698,545		\$25,698,545		\$25,698,545
<b>Charges for Services<sup>1</sup></b>						
<i>Subtotal</i>		\$8,854,774	\$0	\$8,854,774	\$8,854,774	\$0
<b>Other Revenues (less CIP)<sup>2</sup></b>						
<i>Subtotal</i>		\$10,580,609	\$0	\$10,580,609	\$10,580,609	\$0
<b>Transfers In</b>						
<i>Subtotal</i>		\$12,272,473	\$0	\$12,272,473	\$12,272,473	\$0
<b>Total Discretionary Revenues (Less CIP Transfers)</b>		<b>\$142,250,906</b>	<b>\$0</b>	<b>\$142,250,906</b>	<b>\$35,871,068</b>	<b>\$106,379,838</b>

<sup>1</sup>Includes Licenses and Permits

<sup>2</sup>Other Revenue excludes funds from the CIP fund. Fines, Forfeitures, and Penalties are included in this category.

Source: City of Chula Vista

**Table B-10**  
**Chula Vista - Other Discretionary Revenue Allocation Factors (Based on 2009 Information)**

<b>2009 Citywide Conditions</b>	
Population	226,694
Dwelling Units	78,615
Employees	71,153

<b>Land Uses</b>	<b>Developed Acres</b>	<b>Employees (estimated)</b>	<b>AV Share (Estimates)</b>
Commercial (Retail and Office)	2,048	46,842	25%
Industrial	917	21,162	8%
Residential	9,565		67%
Subtotal Taxable	12,530	68,004	
Other (Parks, Public/Quasi-public, Open Space)	7,171	3,149	
Total	19,702	71,153	

**Incremental Revenue Factors by Development Unit**

<b>Revenue Category</b>	<b>2009 Revenues</b>	<b>Allocation Method</b>	<b>Share</b>	<b>Allocation Units</b>
Property Taxes				
Current Taxes - Secured	\$28,363,165	Calculated Separately		
State Secured - Unitary	\$300,000	Commercial AV	25%	\$36.61 Acres
		Industrial AV	8%	\$26.17 Acres
		Residential AV	67%	\$21.01 Acres
Current Taxes - Unsecured	\$979,200	Commercial AV	25%	\$119.51 Acres
		Industrial AV	8%	\$85.42 Acres
		Residential AV	67%	\$68.59 Acres
Delinquent Taxes	\$590,000	Commercial AV	25%	\$72.01 Acres
		Industrial AV	8%	\$51.47 Acres
		Residential AV	67%	\$41.33 Acres
Other Local Taxes				
Sales and Use Taxes	\$29,677,977	Calculated Separately		
Franchise Fees <sup>1</sup>	\$8,732,093	Commercial Land	7%	\$298.40 Acres
		Industrial Land	3%	\$285.66 Acres
		Residential Land	90%	\$821.63 Acres
Utility Taxes <sup>1</sup> with Adjustment <sup>2</sup>	\$6,777,386	Commercial Land	9%	\$297.77 Acres
		Industrial Land	4%	\$295.62 Acres
		Residential Land	87%	\$616.45 Acres
Business License Tax	\$1,322,847	Employees (Non-Public)		\$19.45 Employees
Transient Occupancy Taxes	\$2,752,514	Not Included		
Real Property Transfer Tax	\$841,402	Calculated Separately		
Revenues from Other Agencies				
Sales Tax: Public Safety Augment	\$875,347	People		\$3.86 Person
State Homeowners Property Tax Relief	\$282,800	Dwelling Units		\$3.60 DU
State Motor Vehicle Licenses	\$20,215,866	Calculated Separately		
<b>Total Discretionary Revenues</b>	<b>\$101,710,597</b>			

**Summary of Other Discretionary Revenue Factors**

Commercial (Acres)	\$824.30
Retail Commercial (SF)	\$0.07
Industrial (Acres)	\$744.34
Residential (Acres)	\$1,569.01
Residential (DU)	\$3.60
Employees	\$19.45
Population	\$3.86

<sup>1</sup> As presented in SPA Fiscal Impact Framework, allocation share by land use based on FIND model estimates

<sup>2</sup> Utility User's Tax has been adjusted to account for a change in the wireless utility users' rate from 5.00% to 4.75%, effective March 2014 and an expected reduction of 4% annually in demand for taxable services.

**Table B-11**  
**Projected Program Assessed Value**

Base V2 SPA

	Est. Assessed Value Per Unit	Year 0 <sup>1</sup> (Millions \$)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Future
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
<b>Cumulative Program Assessed Value</b>																				
<b>Land Use</b>																				
Single Family Residential Units	\$465,000	\$92.3	\$244.4	\$267.6	\$300.2	\$332.7	\$365.3	\$397.8	\$405.7	\$405.7	\$405.7	\$405.7	\$405.7	\$405.7	\$405.7	\$405.7	\$405.7	\$405.7	\$405.7	405.7
Multi - Family For-Sale	\$305,000	31.0	145.7	206.7	267.7	334.8	401.9	469.0	487.9	487.9	487.9	487.9	487.9	487.9	487.9	487.9	487.9	487.9	487.9	487.9
<b>Total For Sale Product</b>		<b>\$123.3</b>	<b>\$390.1</b>	<b>\$474.3</b>	<b>\$567.9</b>	<b>\$667.5</b>	<b>\$767.2</b>	<b>\$866.8</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>	<b>\$893.6</b>
MF Rental (including Mixed Use Units)	\$280,000	50.0	175.4	192.2	209.0	231.4	253.8	276.2	277.1	277.1	277.1	277.1	277.1	277.1	277.1	277.1	277.1	277.1	277.1	277.1
Industrial Acres <sup>2</sup>	\$1,409,523		0.0	0.0	4.2	8.5	12.7	16.9	21.1	25.4	29.6	33.8	38.1	42.3	46.5	50.7	55.0	59.2	59.2	133.1
Mixed Use Retail Commercial SF <sup>3</sup>	\$221	0.0	0.0	0.0	0.0	8.8	17.6	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	28.7
<b>Total Income Generating Product</b>		<b>\$50.0</b>	<b>\$175.4</b>	<b>\$192.2</b>	<b>\$213.3</b>	<b>\$248.7</b>	<b>\$284.2</b>	<b>\$315.2</b>	<b>\$320.3</b>	<b>\$324.5</b>	<b>\$328.7</b>	<b>\$333.0</b>	<b>\$337.2</b>	<b>\$341.4</b>	<b>\$345.7</b>	<b>\$349.9</b>	<b>\$354.1</b>	<b>\$358.3</b>	<b>\$358.3</b>	<b>\$438.8</b>
<b>Total Assessed Value</b>		<b>\$173.3</b>	<b>\$565.5</b>	<b>\$666.6</b>	<b>\$781.1</b>	<b>\$916.2</b>	<b>\$1,051.3</b>	<b>\$1,182.0</b>	<b>\$1,213.9</b>	<b>\$1,218.1</b>	<b>\$1,222.4</b>	<b>\$1,226.6</b>	<b>\$1,230.8</b>	<b>\$1,235.1</b>	<b>\$1,239.3</b>	<b>\$1,243.5</b>	<b>\$1,247.7</b>	<b>\$1,252.0</b>	<b>\$1,252.0</b>	<b>\$1,332.4</b>

<sup>1</sup>Existing Units are included at their current assessed value.

<sup>2</sup>Industrial Assessed Value is a blended value for general industrial (40%) and research/limited industrial (60%)

<sup>3</sup>Retail Assessed Value includes blended value for shopping center retail (75%) and mixed-use retail (25%)

Source: HR&A

**Table B-12**  
**Property Tax Estimate**

Base V2 SPA

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Balance of SPA	Future Build Out
		(Value)																			
Annual For Sale Product AV (Millions)		\$123.3	\$266.7	\$84.3	\$93.6	\$99.7	\$99.7	\$99.7	\$26.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Annual Income Generating Product AV (Millions)		\$50.0	\$125.4	\$16.8	\$21.0	\$35.5	\$35.5	\$31.0	\$5.1	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$0.0	\$80.5
<b>Appreciation Factor:</b>	<b>Annual Rate</b>	<b>Yr 0</b>	<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>	<b>Yr 4</b>	<b>Yr 5</b>	<b>Yr 6</b>	<b>Yr 7</b>	<b>Yr 8</b>	<b>Yr 9</b>	<b>Yr 10</b>	<b>Yr 11</b>	<b>Yr 12</b>	<b>Yr 13</b>	<b>Yr 14</b>	<b>Yr 15</b>	<b>Yr 16</b>	<b>Yr 17</b>	<b>Balance of SPA</b>	<b>Build Out</b>
Real Appreciation Rate	2.00%	100%	100%	102%	104%	106%	108%	110%	113%	115%	117%	120%	122%	124%	127%	129%	132%	135%	137%	140%	143%
Proposition 13 AV Limitation less Inflation of 2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Residential Annual Turnover Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Commercial Turnover Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>For Sale Residential Product</b>																					
Year Property First Sold:																					
	Yr 0	\$123.3	\$123.3	\$123.58	\$124.0	\$124.7	\$125.6	\$126.7	\$127.9	\$129.3	\$130.8	\$132.4	\$134.2	\$136.1	\$138.2	\$140.3	\$142.6	\$144.9	\$147.3	\$149.9	\$152.5
	Yr 1		\$266.74	\$267.27	\$268.3	\$269.8	\$271.7	\$273.9	\$276.6	\$279.6	\$282.9	\$286.5	\$290.3	\$294.5	\$298.8	\$303.5	\$308.3	\$313.4	\$318.7	\$324.1	\$329.8
	Yr 2			\$85.94	\$86.1	\$86.4	\$86.9	\$87.5	\$88.3	\$89.1	\$90.1	\$91.1	\$92.3	\$93.5	\$94.9	\$96.3	\$97.8	\$99.3	\$101.0	\$102.7	\$104.4
	Yr 3				\$97.3	\$97.5	\$97.9	\$98.4	\$99.1	\$100.0	\$100.9	\$102.0	\$103.2	\$104.5	\$105.9	\$107.4	\$109.0	\$110.7	\$112.5	\$114.3	\$116.3
	Yr 4					\$105.7	\$106.0	\$106.4	\$107.0	\$107.7	\$108.6	\$109.7	\$110.8	\$112.1	\$113.6	\$115.1	\$116.7	\$118.5	\$120.3	\$122.2	\$124.2
	Yr 5						\$107.9	\$108.1	\$108.5	\$109.1	\$109.9	\$110.8	\$111.9	\$113.1	\$114.4	\$115.8	\$117.4	\$119.1	\$120.8	\$122.7	\$124.7
	Yr 6							\$110.0	\$110.2	\$110.7	\$111.3	\$112.1	\$113.0	\$114.1	\$115.3	\$116.7	\$118.2	\$119.8	\$121.5	\$123.3	\$125.2
	Yr 7								\$30.2	\$30.3	\$30.4	\$30.5	\$30.8	\$31.0	\$31.3	\$31.7	\$32.0	\$32.4	\$32.9	\$33.3	\$33.8
	Yr 8									\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
	Yr 9										\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
	Yr 10											\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 11												\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 12													\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 13														\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 14															\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 15																\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 16																	\$0.00	\$0.00	\$0.00	\$0.00
	Yr 17																		\$0.00	\$0.00	\$0.00
	Incremental Build Out																			\$0.00	\$0.00
	Future Build Out																				\$0.00
For Sale Residential Assessed Value (Millions)		\$123.3	\$390.1	\$476.8	\$575.8	\$684.2	\$795.9	\$911.0	\$947.8	\$955.6	\$964.8	\$975.1	\$986.5	\$999.0	\$1,012.4	\$1,026.8	\$1,042.0	\$1,058.1	\$1,074.9	\$1,092.6	\$1,111.0

**Table B-12 (Cont.)  
Property Tax Estimate**

Base V2 SPA

	Year 0 (Value)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Balance of SPA	Future Build Out	
Annual For Sale Product AV (Millions)	\$123.3	\$266.7	\$84.3	\$93.6	\$99.7	\$99.7	\$99.7	\$26.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Annual Income Generating Product AV (Millions)	\$50.0	\$125.4	\$16.8	\$21.0	\$35.5	\$35.5	\$31.0	\$5.1	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$0.0	\$80.5	
<b>Appreciation Factor:</b>	<b>Annual Rate</b>	<b>Yr 0</b>	<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>	<b>Yr 4</b>	<b>Yr 5</b>	<b>Yr 6</b>	<b>Yr 7</b>	<b>Yr 8</b>	<b>Yr 9</b>	<b>Yr 10</b>	<b>Yr 11</b>	<b>Yr 12</b>	<b>Yr 13</b>	<b>Yr 14</b>	<b>Yr 15</b>	<b>Yr 16</b>	<b>Yr 17</b>	<b>Balance of SPA</b>	<b>Build Out</b>
Real Appreciation Rate	2.00%	100%	100%	102%	104%	106%	108%	110%	113%	115%	117%	120%	122%	124%	127%	129%	132%	135%	137%	140%	143%
Proposition 13 AV Limitation less Inflation of 2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Residential Annual Turnover Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Commercial Turnover Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>Commercial and Rental Residential Product</b>																					
Year Property First Sold:																					
	Yr 0	\$50.00	\$50.00	\$50.1	\$50.1	\$50.3	\$50.5	\$50.7	\$51.0	\$51.3	\$51.7	\$52.1	\$52.5	\$53.0	\$53.5	\$54.1	\$54.7	\$55.3	\$56.0	\$56.7	\$57.4
	Yr 1		\$125.44	\$125.6	\$125.8	\$126.2	\$126.7	\$127.2	\$128.0	\$128.8	\$129.7	\$130.7	\$131.8	\$133.0	\$134.3	\$135.7	\$137.2	\$138.8	\$140.4	\$142.2	\$144.1
	Yr 2			\$17.14	\$17.2	\$17.2	\$17.2	\$17.3	\$17.4	\$17.5	\$17.6	\$17.7	\$17.9	\$18.0	\$18.2	\$18.3	\$18.5	\$18.7	\$19.0	\$19.2	\$19.4
	Yr 3				\$21.88	\$21.9	\$21.9	\$22.0	\$22.1	\$22.2	\$22.3	\$22.5	\$22.6	\$22.8	\$23.0	\$23.2	\$23.4	\$23.7	\$23.9	\$24.2	\$24.5
	Yr 4					\$37.62	\$37.7	\$37.7	\$37.8	\$38.0	\$38.2	\$38.4	\$38.6	\$38.9	\$39.2	\$39.5	\$39.9	\$40.3	\$40.7	\$41.1	\$41.6
	Yr 5						\$38.37	\$38.4	\$38.5	\$38.6	\$38.7	\$38.9	\$39.1	\$39.4	\$39.7	\$40.0	\$40.3	\$40.7	\$41.1	\$41.5	\$42.0
	Yr 6							\$34.27	\$34.3	\$34.4	\$34.5	\$34.6	\$34.8	\$35.0	\$35.2	\$35.4	\$35.7	\$36.0	\$36.3	\$36.7	\$37.1
	Yr 7								\$5.71	\$5.7	\$5.7	\$5.7	\$5.8	\$5.8	\$5.8	\$5.9	\$5.9	\$5.9	\$6.0	\$6.1	\$6.1
	Yr 8									\$4.86	\$4.9	\$4.87	\$4.89	\$4.90	\$4.93	\$4.95	\$4.99	\$5.02	\$5.06	\$5.10	\$5.15
	Yr 9										\$4.95	\$5.0	\$5.0	\$5.0	\$5.0	\$5.1	\$5.1	\$5.1	\$5.1	\$5.2	\$5.2
	Yr 10											\$5.05	\$5.1	\$5.1	\$5.1	\$5.1	\$5.1	\$5.2	\$5.2	\$5.2	\$5.3
	Yr 11												\$5.15	\$5.16	\$5.17	\$5.18	\$5.20	\$5.23	\$5.26	\$5.29	\$5.33
	Yr 12													\$5.26	\$5.26	\$5.27	\$5.29	\$5.31	\$5.33	\$5.36	\$5.40
	Yr 13														\$5.36	\$5.37	\$5.38	\$5.39	\$5.41	\$5.44	\$5.47
	Yr 14															\$5.47	\$5.48	\$5.49	\$5.50	\$5.52	\$5.55
	Yr 15																\$5.58	\$5.59	\$5.60	\$5.61	\$5.63
	Yr 16																	\$5.69	\$5.70	\$5.71	\$5.72
	Yr 17																		\$0.00	\$0.00	\$0.00
	Incremental Development Build Out																			\$112.69	\$112.80
Commercial and Rental Residential Assessed Value (Millions)	\$50.0	\$175.4	\$192.8	\$215.0	\$253.2	\$292.4	\$327.7	\$334.8	\$341.3	\$348.2	\$355.5	\$363.2	\$371.2	\$379.7	\$388.5	\$397.7	\$407.4	\$411.6	\$528.8	\$533.7	
Total Assessed Value (Residential and Commercial) (Millions)	\$173.3	\$565.5	\$669.5	\$790.8	\$937.4	\$1,088.3	\$1,238.7	\$1,282.5	\$1,296.9	\$1,313.0	\$1,330.6	\$1,349.7	\$1,370.2	\$1,392.1	\$1,415.3	\$1,439.8	\$1,465.5	\$1,486.5	\$1,621.4	\$1,644.7	
Less Base Assessed Value	(0.9)	(2.1)	(2.9)	(3.9)	(5.0)	(6.2)	(7.5)	(7.8)	(7.9)	(7.9)	(8.0)	(8.1)	(8.1)	(8.2)	(8.2)	(8.3)	(8.4)	(8.4)	(9.5)	(9.5)	
Incremental AV (Residential and Commercial) (Millions)	\$172.4	\$563.4	\$666.7	\$786.9	\$932.4	\$1,082.0	\$1,231.2	\$1,274.7	\$1,289.0	\$1,305.0	\$1,322.6	\$1,341.6	\$1,362.1	\$1,383.9	\$1,407.0	\$1,431.4	\$1,457.1	\$1,478.2	\$1,611.9	\$1,635.2	
<b>Total Incremental Property Taxes Collected<sup>1</sup></b>	<b>1.00%</b>	<b>\$1,724,370</b>	<b>\$1,724,370</b>	<b>\$5,634,053</b>	<b>\$6,666,503</b>	<b>\$7,869,111</b>	<b>\$9,324,091</b>	<b>\$10,820,314</b>	<b>\$12,312,107</b>	<b>\$12,747,074</b>	<b>\$12,890,355</b>	<b>\$13,050,162</b>	<b>\$13,225,638</b>	<b>\$13,416,027</b>	<b>\$13,620,659</b>	<b>\$13,838,947</b>	<b>\$14,070,376</b>	<b>\$14,314,500</b>	<b>\$14,570,929</b>	<b>\$14,781,888</b>	<b>\$16,119,036</b>
<b>Property Tax Share to the City</b>	<b>10.636%</b>	<b>\$183,410</b>	<b>\$183,410</b>	<b>\$599,256</b>	<b>\$709,071</b>	<b>\$836,984</b>	<b>\$991,740</b>	<b>\$1,150,883</b>	<b>\$1,309,555</b>	<b>\$1,355,820</b>	<b>\$1,371,059</b>	<b>\$1,388,057</b>	<b>\$1,406,721</b>	<b>\$1,426,972</b>	<b>\$1,448,737</b>	<b>\$1,471,955</b>	<b>\$1,496,570</b>	<b>\$1,522,536</b>	<b>\$1,549,811</b>	<b>\$1,572,249</b>	<b>\$1,714,472</b>

<sup>1</sup>With a year lag to account for property tax receipt to the City.

**Table B-13**  
**Annual Property Transfer Tax Estimate**

Base V2 SPA

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Balance of Development	Future Build Out
Annual For Sale Product AV (Millions)		\$123.3	\$266.7	\$84.3	\$93.6	\$99.7	\$99.7	\$99.7	\$26.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Annual Income Generating Product AV (Millions)		\$50.0	\$125.4	\$16.8	\$21.0	\$35.5	\$35.5	\$31.0	\$5.1	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$0.0	\$80.5	
Appreciation Factor:	<i>Annual Rate</i>	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Future Build Out
Real Appreciation Rate	2.00%	100%	100%	102%	104%	106%	108%	110%	113%	115%	117%	120%	122%	124%	127%	129%	132%	135%	137%	140%	143%
Residential Annual Turnover Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Commercial Turnover Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>For Sale Residential Product</b>																					
Year Property First Sold:	Yr 0	\$67,831	\$6,783	\$6,919	\$7,057	\$7,198	\$7,342	\$7,489	\$7,639	\$7,792	\$7,947	\$8,106	\$8,269	\$8,434	\$8,603	\$8,775	\$8,950	\$9,129	\$9,312	\$9,498	\$9,688
	Yr 1		\$146,704	\$14,964	\$15,263	\$15,568	\$15,880	\$16,197	\$16,521	\$16,852	\$17,189	\$17,533	\$17,883	\$18,241	\$18,606	\$18,978	\$19,357	\$19,744	\$20,139	\$20,542	\$20,953
	Yr 2			\$47,264	\$4,821	\$4,917	\$5,016	\$5,116	\$5,218	\$5,323	\$5,429	\$5,538	\$5,649	\$5,761	\$5,877	\$5,994	\$6,114	\$6,236	\$6,361	\$6,488	\$6,618
	Yr 3				\$53,531	\$5,460	\$5,569	\$5,681	\$5,794	\$5,910	\$6,028	\$6,149	\$6,272	\$6,397	\$6,525	\$6,656	\$6,789	\$6,925	\$7,063	\$7,205	\$7,349
	Yr 4					\$58,162	\$5,933	\$6,051	\$6,172	\$6,296	\$6,422	\$6,550	\$6,681	\$6,815	\$6,951	\$7,090	\$7,232	\$7,376	\$7,524	\$7,674	\$7,828
	Yr 5						\$59,325	\$6,051	\$6,172	\$6,296	\$6,422	\$6,550	\$6,681	\$6,815	\$6,951	\$7,090	\$7,232	\$7,376	\$7,524	\$7,674	\$7,828
	Yr 6							\$60,512	\$6,172	\$6,296	\$6,422	\$6,550	\$6,681	\$6,815	\$6,951	\$7,090	\$7,232	\$7,376	\$7,524	\$7,674	\$7,828
	Yr 7								\$16,609	\$1,694	\$1,728	\$1,763	\$1,798	\$1,834	\$1,870	\$1,908	\$1,946	\$1,985	\$2,025	\$2,065	\$2,106
	Yr 8									\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Yr 9										\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Yr 10											\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Yr 11												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Yr 12													\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Yr 13														\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Yr 14															\$0	\$0	\$0	\$0	\$0	\$0
	Yr 15																\$0	\$0	\$0	\$0	\$0
	Yr 16																	\$0	\$0	\$0	\$0
	Yr 17																		\$0	\$0	\$0
	Balance of Development																			\$0	\$0
	Future Build Out																				\$0
For Sale Residential Property Transfer Taxes		\$67,831	\$153,487	\$69,147	\$80,672	\$91,306	\$99,065	\$107,097	\$70,298	\$56,457	\$57,587	\$58,738	\$59,913	\$61,111	\$62,334	\$63,580	\$64,852	\$66,149	\$67,472	\$68,821	\$70,198

**Table B-13 (Cont.)**

**Annual Property Transfer Tax Estimate**

Base V2 SPA

		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Balance of Development	Future Build Out	
Annual For Sale Product AV (Millions)		\$123.3	\$266.7	\$84.3	\$93.6	\$99.7	\$99.7	\$99.7	\$26.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Annual Income Generating Product AV (Millions)		\$50.0	\$125.4	\$16.8	\$21.0	\$35.5	\$35.5	\$31.0	\$5.1	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$4.2	\$0.0	\$80.5		
Appreciation Factor:	<i>Annual Rate</i>	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Future Build Out	
Real Appreciation Rate	2.00%	100%	100%	102%	104%	106%	108%	110%	113%	115%	117%	120%	122%	124%	127%	129%	132%	135%	137%	140%	143%	
Residential Annual Turnover Rate	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Commercial Turnover Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
<b>Commercial and Rental Residential Product</b>																						
Year Property First Sold:																						
	Yr 0	\$27,501	\$1,375	\$1,403	\$1,431	\$1,459	\$1,488	\$1,518	\$1,549	\$1,579	\$1,611	\$1,643	\$1,676	\$1,710	\$1,744	\$1,779	\$1,814	\$1,851	\$1,888	\$1,925	\$1,964	
	Yr 1		\$68,992	\$3,519	\$3,589	\$3,661	\$3,734	\$3,809	\$3,885	\$3,963	\$4,042	\$4,123	\$4,205	\$4,289	\$4,375	\$4,462	\$4,552	\$4,643	\$4,736	\$4,830	\$4,927	
	Yr 2			\$9,425	\$481	\$490	\$500	\$510	\$520	\$531	\$541	\$552	\$563	\$574	\$586	\$598	\$610	\$622	\$634	\$647	\$660	
	Yr 3				\$12,033	\$614	\$626	\$638	\$651	\$664	\$678	\$691	\$705	\$719	\$733	\$748	\$763	\$778	\$794	\$810	\$826	
	Yr 4					\$20,692	\$1,055	\$1,076	\$1,098	\$1,120	\$1,142	\$1,165	\$1,188	\$1,212	\$1,236	\$1,261	\$1,286	\$1,312	\$1,338	\$1,365	\$1,392	
	Yr 5						\$21,106	\$1,076	\$1,098	\$1,120	\$1,142	\$1,165	\$1,188	\$1,212	\$1,236	\$1,261	\$1,286	\$1,312	\$1,338	\$1,365	\$1,392	
	Yr 6							\$18,849	\$961	\$981	\$1,000	\$1,020	\$1,041	\$1,061	\$1,083	\$1,104	\$1,126	\$1,149	\$1,172	\$1,195	\$1,219	
	Yr 7								\$3,139	\$160	\$163	\$167	\$170	\$173	\$177	\$180	\$184	\$188	\$191	\$195	\$199	
	Yr 8									\$2,672	\$136	\$139	\$142	\$145	\$147	\$150	\$153	\$157	\$160	\$163	\$166	
	Yr 9										\$2,725	\$139	\$142	\$145	\$147	\$150	\$153	\$157	\$160	\$163	\$166	
	Yr 10											\$2,779	\$142	\$145	\$147	\$150	\$153	\$157	\$160	\$163	\$166	
	Yr 11												\$2,835	\$145	\$147	\$150	\$153	\$157	\$160	\$163	\$166	
	Yr 12													\$2,892	\$147	\$150	\$153	\$157	\$160	\$163	\$166	
	Yr 13														\$2,950	\$150	\$153	\$157	\$160	\$163	\$166	
	Yr 14															\$3,009	\$153	\$157	\$160	\$163	\$166	
	Yr 15																\$3,069	\$157	\$160	\$163	\$166	
	Yr 16																	\$3,130	\$160	\$163	\$166	
	Yr 17																		\$0	\$0	\$0	
	Balance of Development																			\$61,978	\$3,161	
	Build Out																					\$0
Commercial and Rental Residential Property Transfer Tax		\$27,501	\$70,367	\$14,346	\$17,533	\$26,916	\$28,510	\$27,477	\$12,901	\$12,789	\$13,181	\$13,584	\$13,997	\$14,421	\$14,857	\$15,305	\$15,764	\$16,236	\$13,528	\$75,776	\$17,235	
<b>Total</b>		<b>\$95,331.6</b>	<b>\$223,854.4</b>	<b>\$83,492.8</b>	<b>\$98,205.5</b>	<b>\$118,222.4</b>	<b>\$127,574.7</b>	<b>\$134,574.8</b>	<b>\$83,199.9</b>	<b>\$69,246.3</b>	<b>\$70,767.5</b>	<b>\$72,321.8</b>	<b>\$73,910.0</b>	<b>\$75,532.8</b>	<b>\$77,190.9</b>	<b>\$78,885.2</b>	<b>\$80,616.3</b>	<b>\$82,385.1</b>	<b>\$80,999.8</b>	<b>\$144,597.5</b>	<b>\$87,433.0</b>	
Total Annual Property Taxes to the City		\$95,332	\$95,332	\$223,854	\$83,493	\$98,206	\$118,222	\$127,575	\$134,575	\$83,200	\$69,246	\$70,767	\$72,322	\$73,910	\$75,533	\$77,191	\$78,885	\$80,616	\$82,385	\$81,000	\$144,598	

Source: HR&A



**Table B-14**  
**Motor Vehicle License Fee Estimates**

	Base V2 SPA																			
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out	
Motor Vehicle In Lieu Fee (MVLf) Adjustment																				
Base Year (2004) Assessed Valuation of the City (Millions)	\$15,596																			
Base Year (2004) Motor Vehicle In Lieu Fee Adjustment (MVLf) (Millions)	\$11.8																			
Cumulative AV of New Development (Millions)	\$173.3	\$565.5	\$669.5	\$790.8	\$937.4	\$1,088.3	\$1,238.7	\$1,282.5	\$1,296.9	\$1,313.0	\$1,330.6	\$1,349.7	\$1,370.2	\$1,392.1	\$1,415.3	\$1,439.8	\$1,465.5	\$1,486.5	\$1,621.4	
AV Adjustment of Base Value (Millions)	(\$0.9)	(\$2.1)	(\$2.9)	(\$3.9)	(\$5.0)	(\$6.2)	(\$7.5)	(\$7.8)	(\$7.9)	(\$7.9)	(\$8.0)	(\$8.1)	(\$8.1)	(\$8.2)	(\$8.2)	(\$8.3)	(\$8.4)	(\$8.4)	(\$9.5)	
Adjusted Cumulative AV Development (Millions)	\$172.4	\$563.4	\$666.7	\$786.9	\$932.4	\$1,082.0	\$1,231.2	\$1,274.7	\$1,289.0	\$1,305.0	\$1,322.6	\$1,341.6	\$1,362.1	\$1,383.9	\$1,407.0	\$1,431.4	\$1,457.1	\$1,478.2	\$1,611.9	
Cumulative Citywide AV Growth (Millions)	\$15,769	\$16,160	\$16,263	\$16,383	\$16,529	\$16,678	\$16,827	\$16,871	\$16,885	\$16,901	\$16,919	\$16,938	\$16,958	\$16,980	\$17,003	\$17,028	\$17,053	\$17,074	\$17,208	
Percent Increase in AV	1.11%	3.61%	4.27%	5.05%	5.98%	6.94%	7.89%	8.17%	8.27%	8.37%	8.48%	8.60%	8.73%	8.87%	9.02%	9.18%	9.34%	9.48%	10.34%	
Cumulative MVLf generated by the Project	\$130,819	\$427,426	\$505,752	\$596,987	\$707,369	\$820,879	\$934,054	\$967,052	\$977,922	\$990,046	\$1,003,358	\$1,017,802	\$1,033,327	\$1,049,887	\$1,067,444	\$1,085,965	\$1,105,418	\$1,121,423	\$1,222,865	
<b>Total Annual MVLf Fees</b>	<b>\$130,819</b>	<b>\$427,426</b>	<b>\$505,752</b>	<b>\$596,987</b>	<b>\$707,369</b>	<b>\$820,879</b>	<b>\$934,054</b>	<b>\$967,052</b>	<b>\$977,922</b>	<b>\$990,046</b>	<b>\$1,003,358</b>	<b>\$1,017,802</b>	<b>\$1,033,327</b>	<b>\$1,049,887</b>	<b>\$1,067,444</b>	<b>\$1,085,965</b>	<b>\$1,105,418</b>	<b>\$1,121,423</b>	<b>\$1,222,865</b>	

Source: City of Chula Vista and HR&A

**Table B-15  
Estimated Onsite Retail Sales Tax**

Average Est. HH Income <sup>1</sup>		Base V2 SPA																		
Single Family Units		\$107,000																		
Multi Family Units																				
MF For Sale		\$70,000																		
MF Rental		\$70,364																		
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out	
Households																				
Single Family Units	247	327	377	447	517	587	657	674	674	674	674	674	674	674	674	674	674	674	674	674
Multi Family Units																				
MF For Sale	111	376	576	776	996	1,216	1,436	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498
MF Rental	323	448	508	568	648	728	808	811	811	811	811	811	811	811	811	811	811	811	811	811
Total Units	681	1,151	1,461	1,791	2,161	2,531	2,901	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983
Employees	0	0	0	52	205	357	460	512	565	617	670	722	775	827	879	932	984	984	984	1,976
Aggregate HH Income	\$56,926,455	\$92,831,909	\$116,403,727	\$142,115,545	\$170,634,636	\$199,153,727	\$227,672,818	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909
Average Annual Income/HH	\$83,592	\$80,653	\$79,674	\$79,350	\$78,961	\$78,686	\$78,481	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459
Countywide Income/HH <sup>2</sup>	\$83,935																			
Countywide Retail Exp/HH <sup>3</sup>	\$36,583																			
Retail Expenditure/HH Adj. Factor for SPA	100%	96%	95%	95%	94%	94%	94%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%
Average Income Spending Adjustment	100.0%																			
Resorts Village Avg. Retail Expenditure/HH	\$36,434	\$35,153	\$34,726	\$34,585	\$34,415	\$34,295	\$34,206	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197
<b>Gross Retail Sales of SPA Residents</b>																				
Neighborhood Center	33%	\$8,187,811	\$13,352,143	\$16,742,511	\$20,440,677	\$24,542,618	\$28,644,559	\$32,746,499	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718
Community Center	20%	4,962,310	8,092,208	10,146,976	12,388,289	14,874,314	17,360,339	19,846,363	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648
Regional Center	4%	992,462	1,618,442	2,029,395	2,477,658	2,974,863	3,472,068	3,969,273	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330
Super Regional Center	7%	1,736,808	2,832,273	3,551,442	4,335,901	5,206,010	6,076,119	6,946,227	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577
Other Centers	36%	8,932,158	14,565,974	18,264,557	22,298,921	26,773,765	31,248,610	35,723,454	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966
<b>Onsite Capture</b>																				
Neighborhood Center	60%	\$4,912,687	\$8,011,286	\$10,045,506	\$12,264,406	\$14,725,571	\$17,186,735	\$19,647,900	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631	\$20,197,631
Community Center	30%	\$1,488,693	\$2,427,662	\$3,044,093	\$3,716,487	\$4,462,294	\$5,208,102	\$5,953,909	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494	\$6,120,494
Regional Center	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Super Regional Center	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Centers	10%	\$893,216	\$1,456,597	\$1,826,456	\$2,229,892	\$2,677,377	\$3,124,861	\$3,572,345	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297	\$3,672,297
<b>Gross Retail Sales from SPA Employees</b>																				
Annual Expenditure/Employee	\$1,175																			
<b>Onsite Capture</b>																				
Neighborhood Center	30%	\$0	\$0	\$0	\$18,490	\$72,231	\$125,971	\$162,086	\$180,577	\$199,067	\$217,558	\$236,048	\$254,538	\$273,029	\$291,519	\$310,009	\$328,500	\$346,990	\$346,990	\$696,393
Community Center	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Center	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Super Regional Center	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Centers	10%	0	0	0	6,163	24,077	41,990	54,029	60,192	66,356	72,519	78,683	84,846	91,010	97,173	103,336	109,500	115,663	115,663	232,131
<b>Total Taxable Retail Sales</b>	% Taxable																			
Neighborhood Center	64%	\$3,144,120	\$5,127,223	\$6,429,124	\$7,861,054	\$9,470,593	\$11,080,132	\$12,678,391	\$13,042,053	\$13,053,887	\$13,065,721	\$13,077,555	\$13,089,388	\$13,101,222	\$13,113,056	\$13,124,890	\$13,136,724	\$13,148,558	\$13,148,558	\$13,372,175
Community Center	77%	1,146,294	1,869,300	2,343,951	2,861,695	3,435,967	4,010,238	4,584,510	4,712,781	4,712,781	4,712,781	4,712,781	4,712,781	4,712,781	4,712,781	4,712,781	4,712,781	4,712,781	4,712,781	4,712,781
Regional Center	97%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Super Regional Center	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Centers	97%	866,419	1,412,900	1,771,662	2,168,974	2,620,410	3,071,846	3,517,583	3,620,514	3,626,493	3,632,471	3,638,450	3,644,428	3,650,407	3,656,386	3,662,364	3,668,343	3,674,321	3,674,321	3,787,295
Total Taxable Retail Sales		\$5,156,833	\$8,409,423	\$10,544,738	\$12,891,723	\$15,526,969	\$18,162,216	\$20,780,484	\$21,375,348	\$21,393,160	\$21,410,973	\$21,428,785	\$21,446,597	\$21,464,410	\$21,482,222	\$21,500,035	\$21,517,847	\$21,535,659	\$21,535,659	\$21,872,251
<b>Annual Sales Taxes to the City @</b>	1%	\$51,568	\$84,094	\$105,447	\$128,917	\$155,270	\$181,622	\$207,805	\$213,753	\$213,932	\$214,110	\$214,288	\$214,466	\$214,644	\$214,822	\$215,000	\$215,178	\$215,357	\$215,357	\$218,723

<sup>1</sup> Derived based on estimate of mortgage payment as 25% of income and 20 percent down.

<sup>2</sup> American Community Survey 2009

<sup>3</sup> Board of Equalization 2009 Annual Data per county capita

Source: City of Chula Vista and HR&A

**Table B-16**  
**Estimated Offsite Retail Sales Tax**

Average Est. HH Income <sup>1</sup>	\$107,000
Single Family Units	
Multi Family Units	
MF For Sale	\$70,000
MF Rental	\$70,364

Base V2 SPA

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out	
<b>Households</b>																				
Single Family Units	247	327	377	447	517	587	657	674	674	674	674	674	674	674	674	674	674	674	674	
Multi Family Units																				
MF For Sale	111	376	576	776	996	1,216	1,436	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	1,498	
MF Rental	323	448	508	568	648	728	808	811	811	811	811	811	811	811	811	811	811	811	811	
Total Units	681	1,151	1,461	1,791	2,161	2,531	2,901	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	
Employees	0	0	0	52	205	357	460	512	565	617	670	722	775	827	879	932	984	984	1,976	
Aggregate HH Income	\$56,926,455	\$92,831,909	\$116,403,727	\$142,115,545	\$170,634,636	\$199,153,727	\$227,672,818	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	\$234,042,909	
Average Annual Income/HH	\$83,592	\$80,653	\$79,674	\$79,350	\$78,961	\$78,686	\$78,481	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	\$78,459	
Countywide Income/HH <sup>2</sup>	\$83,935																			
Countywide Retail Exp/HH <sup>3</sup>	\$36,583																			
Retail Expenditure/HH Adj. Factor SPA	100%	96%	95%	95%	94%	94%	94%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%	
Project Avg. Retail Expenditure/HH	\$36,434	\$35,152.95	\$34,726	\$34,585	\$34,415	\$34,295	\$34,206	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	\$34,197	
<b>Gross Retail Sales of SPA Residents</b>																				
Neighborhood Center	33%	\$8,187,811	\$13,352,143	\$16,742,511	\$20,440,677	\$24,542,618	\$28,644,559	\$32,746,499	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	\$33,662,718	
Community Center	20%	4,962,310	8,092,208	10,146,976	12,388,289	14,874,314	17,360,339	19,846,363	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	20,401,648	
Regional Center	4%	992,462	1,618,442	2,029,395	2,477,658	2,974,863	3,472,068	3,969,273	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	4,080,330	
Super Regional Center	7%	1,736,808	2,832,273	3,551,442	4,335,901	5,206,010	6,076,119	6,946,227	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	7,140,577	
Other Centers	36%	8,932,158	14,565,974	18,264,557	22,298,921	26,773,765	31,248,610	35,723,454	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	36,722,966	
<b>Off Site Share</b>																				
Neighborhood Center	40%	\$0	\$5,340,857	\$6,697,004	\$8,176,271	\$9,817,047	\$11,457,823	\$13,098,600	\$13,465,087	\$13,465,087	\$13,465,087	\$13,465,087	\$13,465,087	\$13,465,087	\$13,465,087	\$13,465,087	\$13,465,087	\$13,465,087	\$13,465,087	
Community Center	70%	\$0	\$5,664,546	\$7,102,883	\$8,671,803	\$10,412,020	\$12,152,237	\$13,892,454	\$14,281,153	\$14,281,153	\$14,281,153	\$14,281,153	\$14,281,153	\$14,281,153	\$14,281,153	\$14,281,153	\$14,281,153	\$14,281,153	\$14,281,153	
Regional Center	100%	\$0	\$1,618,442	\$2,029,395	\$2,477,658	\$2,974,863	\$3,472,068	\$3,969,273	\$4,080,330	\$4,080,330	\$4,080,330	\$4,080,330	\$4,080,330	\$4,080,330	\$4,080,330	\$4,080,330	\$4,080,330	\$4,080,330	\$4,080,330	
Super Regional Center	100%	\$1	\$2,832,273	\$3,551,442	\$4,335,901	\$5,206,010	\$6,076,119	\$6,946,227	\$7,140,577	\$7,140,577	\$7,140,577	\$7,140,577	\$7,140,577	\$7,140,577	\$7,140,577	\$7,140,577	\$7,140,577	\$7,140,577	\$7,140,577	
Other Centers	90%	\$32,791	\$13,109,377	\$16,438,101	\$20,069,029	\$24,096,389	\$28,123,479	\$32,151,109	\$33,050,669	\$33,050,669	\$33,050,669	\$33,050,669	\$33,050,669	\$33,050,669	\$33,050,669	\$33,050,669	\$33,050,669	\$33,050,669	\$33,050,669	
<b>Chula Vista Capture</b>																				
Neighborhood Center	80%	\$6,550,249	\$4,272,686	\$5,357,603	\$6,541,017	\$7,853,638	\$9,166,259	\$10,478,880	\$10,772,070	\$10,772,070	\$10,772,070	\$10,772,070	\$10,772,070	\$10,772,070	\$10,772,070	\$10,772,070	\$10,772,070	\$10,772,070	\$10,772,070	
Community Center	80%	\$3,969,848	\$4,531,636	\$5,682,307	\$6,937,442	\$8,329,616	\$9,721,790	\$11,113,963	\$11,424,923	\$11,424,923	\$11,424,923	\$11,424,923	\$11,424,923	\$11,424,923	\$11,424,923	\$11,424,923	\$11,424,923	\$11,424,923	\$11,424,923	
Regional Center	70%	\$694,723	\$1,132,909	\$1,420,577	\$1,734,361	\$2,082,404	\$2,430,447	\$2,778,491	\$2,856,231	\$2,856,231	\$2,856,231	\$2,856,231	\$2,856,231	\$2,856,231	\$2,856,231	\$2,856,231	\$2,856,231	\$2,856,231	\$2,856,231	
Super Regional Center	60%	\$1,042,085	\$1,699,364	\$2,130,865	\$2,601,541	\$3,123,606	\$3,645,671	\$4,167,736	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	
Other Centers	40%	\$3,572,863	\$5,243,751	\$6,575,241	\$8,027,611	\$9,638,555	\$11,249,499	\$12,860,443	\$13,220,268	\$13,220,268	\$13,220,268	\$13,220,268	\$13,220,268	\$13,220,268	\$13,220,268	\$13,220,268	\$13,220,268	\$13,220,268	\$13,220,268	
<b>Gross Retail Sales from SPA Employees</b>																				
Annual Expenditure/Employee	\$1,175																			
<b>Offsite Spending</b>																				
Neighborhood Center	25%	\$0	\$0	\$0	\$15,409	\$60,192	\$104,976	\$135,072	\$150,481	\$165,889	\$181,298	\$196,707	\$212,115	\$227,524	\$242,933	\$258,341	\$273,750	\$289,158	\$580,327	
Community Center	20%	0	0	0	12,327	48,154	83,981	108,058	120,385	132,711	145,038	157,365	169,692	182,019	194,346	206,673	219,000	231,327	464,262	
Regional Center	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Super Regional Center	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other Centers	15%	0	0	0	9,245	36,115	62,986	81,043	90,288	99,534	108,779	118,024	127,269	136,514	145,760	155,005	164,250	173,495	348,196	
<b>Chula Vista Capture</b>																				
Neighborhood Center	80%	\$0	\$0	\$0	\$12,327	\$48,154	\$83,981	\$108,058	\$120,385	\$132,711	\$145,038	\$157,365	\$169,692	\$182,019	\$194,346	\$206,673	\$219,000	\$231,327	\$464,262	
Community Center	80%	\$0	\$0	\$0	\$9,862	\$38,523	\$67,185	\$86,446	\$96,308	\$106,169	\$116,031	\$125,892	\$135,754	\$145,615	\$155,477	\$165,338	\$175,200	\$185,061	\$371,410	
Regional Center	70%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Super Regional Center	60%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Other Centers	40%	\$0	\$0	\$0	\$3,698	\$14,446	\$25,194	\$32,417	\$36,115	\$39,813	\$43,512	\$47,210	\$50,908	\$54,606	\$58,304	\$62,002	\$65,700	\$69,398	\$139,279	
<b>Taxable Retail Sales</b>	% Taxable																			
Neighborhood Center	64%	\$4,192,159	\$2,734,519	\$3,428,866	\$4,194,140	\$5,057,147	\$5,920,153	\$6,775,640	\$6,971,171	\$6,979,060	\$6,986,949	\$6,994,839	\$7,002,728	\$7,010,617.00	\$7,018,506	\$7,026,395.45	\$7,034,285	\$7,042,173.89	\$7,042,174	\$7,191,252
Community Center	77%	\$3,056,783	\$3,489,360	\$4,375,376	\$5,349,424	\$6,443,467	\$7,537,510	\$8,624,315	\$8,871,347	\$8,878,941	\$8,886,534	\$8,894,127	\$8,901,721	\$8,909,314	\$8,916,908	\$8,924,501	\$8,932,094	\$8,939,688	\$8,939,688	\$9,083,176
Regional Center	97%	\$673,882	\$1,098,922	\$1,377,959	\$1,682,330	\$2,019,932	\$2,357,534	\$2,695,136	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544	\$2,770,544
Super Regional Center	100%	\$1,042,085	\$1,699,364	\$2,130,865	\$2,601,541	\$3,123,606	\$3,645,671	\$4,167,736	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346	\$4,284,346
Other Centers	97%	\$3,465,677	\$5,086,438	\$6,377,983	\$7,790,370	\$9,363,412	\$10,936,453	\$12,506,075	\$12,858,692	\$12,862,279	\$12,865,866	\$12,869,453	\$12,873,040	\$12,876,627	\$12,880,214	\$12,883,801	\$12,887,389	\$12,890,976	\$12,890,976	\$12,958,760
Total Taxable Retail Sales		\$12,430,586	\$14,108,603	\$17,691,050	\$21,617,804	\$26,007,563	\$30,397,321	\$34,768,903	\$35,775,169	\$35,775,169	\$35,775,169	\$35,775,169	\$35,775,169	\$35,775,169	\$35,775,169	\$35,775,169	\$35,775,169	\$35,775,169	\$35,775,169	\$36,288,078
Annual Sales Taxes to the City	1%	\$124,306	\$141,086	\$176,911	\$216,178	\$260,076	\$303,973	\$347,689	\$357,561	\$357,561	\$357,561	\$357,561	\$357,561	\$357,561	\$357,561	\$357,561	\$357,561	\$357,561	\$357,561	\$362,881

<sup>1</sup>Derived based on estimate of mortgage payment at 25% of income and 20 percent down.

<sup>2</sup>American Community Survey 2009

<sup>3</sup>Board of Equalization 2009 Annual Data per county capita

Source: City of Chula Vista and HR&A

**Table B-17**  
**Annexation Scenario - Revenue Summary (2009 \$)**

		Base V2 SPA																	Future	
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Build Out
<b>Revenue Drivers</b>																				
Population(Persons)		2,206	3,729	4,734	5,803	7,002	8,200	9,399	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665	9,665
Private Employment (Employees)		0	0	0	52	205	357	460	512	565	617	670	722	775	827	879	932	984	984	1,976
Dwelling Units		681	1,151	1,461	1,791	2,161	2,531	2,901	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983	2,983
Retail Commercial (SF)		0	0	0	0	40,000	80,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	130,000
Industrial Land (Acres)		0.0	0.0	0.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	42.0	94.4
Residential Land (Acres)		42.7	100.4	137.8	181.8	228.9	276.1	323.3	334.1	334.1	334.1	334.1	334.1	334.1	334.1	334.1	334.1	334.1	334.1	334.1
<b>Annual Revenues</b>																				
Revenue Adjustment Factor	<b>Revenue Factors</b>	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%	115%
Population(Persons)	\$3.86	\$9,791	\$16,548	\$21,005	\$25,750	\$31,069	\$36,389	\$41,708	\$42,887	\$42,887	\$42,887	\$42,887	\$42,887	\$42,887	\$42,887	\$42,887	\$42,887	\$42,887	\$42,887	\$42,887
Private Employment (Employees)	\$19.45	\$0	\$0	\$0	\$1,173	\$4,581	\$7,989	\$10,279	\$11,452	\$12,624	\$13,797	\$14,969	\$16,142	\$17,315	\$18,487	\$19,660	\$20,832	\$22,005	\$22,005	\$44,163
Dwelling Units	\$3.60	\$2,815	\$4,758	\$6,040	\$7,404	\$8,933	\$10,463	\$11,993	\$12,332	\$12,332	\$12,332	\$12,332	\$12,332	\$12,332	\$12,332	\$12,332	\$12,332	\$12,332	\$12,332	\$12,332
Retail Commercial (SF)	\$0.07	\$0	\$0	\$0	\$0	\$3,107	\$6,213	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$7,767	\$10,997
Industrial (Acres)	\$744.34	\$0	\$0	\$0	\$2,566	\$5,132	\$7,698	\$10,265	\$12,831	\$15,397	\$17,963	\$20,529	\$23,095	\$25,661	\$28,228	\$30,794	\$33,360	\$35,926	\$35,926	\$80,748
Residential Land (Acres)	\$1,569.01	\$77,028	\$181,094	\$248,500	\$327,733	\$412,788	\$497,842	\$582,897	\$602,409	\$602,409	\$602,409	\$602,409	\$602,409	\$602,409	\$602,409	\$602,409	\$602,409	\$602,409	\$602,409	\$602,409
Property Taxes	\$183,410	\$183,410	\$599,256	\$709,071	\$836,984	\$991,740	\$1,150,883	\$1,309,555	\$1,355,820	\$1,371,059	\$1,388,057	\$1,406,721	\$1,426,972	\$1,448,737	\$1,471,955	\$1,496,570	\$1,522,536	\$1,549,811	\$1,571,472	\$1,714,472
Property Transfer Taxes	\$95,332	\$95,332	\$223,854	\$83,493	\$98,206	\$118,222	\$127,575	\$134,575	\$83,200	\$69,246	\$70,767	\$72,322	\$73,910	\$75,533	\$77,191	\$78,885	\$80,616	\$82,385	\$84,198	\$144,598
MVLF Revenues	\$130,819	\$427,426	\$505,752	\$596,987	\$707,369	\$820,879	\$934,054	\$967,052	\$977,922	\$990,046	\$1,003,358	\$1,017,802	\$1,033,327	\$1,049,887	\$1,067,444	\$1,085,965	\$1,105,418	\$1,121,423	\$1,222,865	\$1,222,865
Sales and Use Tax	\$175,874	\$225,180	\$282,358	\$345,095	\$415,345	\$485,595	\$555,494	\$571,314	\$571,683	\$572,052	\$572,421	\$572,790	\$573,159	\$573,527	\$573,896	\$574,265	\$574,634	\$574,634	\$574,634	\$581,603
<b>Total Annual Revenues</b>	<b>\$675,068</b>	<b>\$1,133,747</b>	<b>\$1,886,765</b>	<b>\$2,099,271</b>	<b>\$2,523,513</b>	<b>\$2,983,032</b>	<b>\$3,432,913</b>	<b>\$3,672,174</b>	<b>\$3,682,041</b>	<b>\$3,699,558</b>	<b>\$3,735,497</b>	<b>\$3,774,267</b>	<b>\$3,815,737</b>	<b>\$3,859,793</b>	<b>\$3,906,334</b>	<b>\$3,955,272</b>	<b>\$4,006,530</b>	<b>\$4,051,578</b>	<b>\$4,051,578</b>	<b>\$4,456,174</b>

Source: HR&A



# **Market Analysis in Support of the Otay Ranch Village 2 Comprehensive SPA Amendment**

Prepared for:  
City of Chula Vista  
August 14, 2014

Prepared by:  
HR&A Advisors, Inc.  
700 South Flower Street, Suite 2730  
Los Angeles, CA 90017



# Executive Summary

Baldwin & Sons (Developer) is currently preparing an amendment that proposes land use changes in the Otay Ranch Village 2 area and will impact surrounding villages. The City retained HR&A Advisors, Inc. (HR&A) an experienced fiscal consultant, to prepare a fiscal impact analysis of the proposed amendment as well as a market demand analysis of industrial and retail commercial uses to support the fiscal impact.

This deliverable includes the industrial and retail market analysis. It reviews the current performance of the Chula Vista industrial and retail markets and projects demand for each use. This analysis will be used to prepare market-drive absorption estimates for the fiscal impact (prepared under separate cover).

## Project

The Village 2 Comprehensive SPA Amendment proposes 1,562 additional residential units, approximately 14 additional acres of commercial/residential mixed use, an 11.9-acre reduction in industrial, 6.3 additional acres of community purpose facilities (CPF), 12.2 additional acres of parkland (a portion of park acres will be included in Village 4), and a second elementary school in the Village 2 SPA of the Otay Ranch General Development Plan area.

## Industrial Market Analysis Findings

- The Chula Vista and Otay Mesa industrial markets are weak due to the sluggish Mexico economy. Imports from Mexico are starting to grow, but industrial development is likely to have a significant lag. Industrial users/developers will look to lease available vacant Otay Mesa space before looking to construct new industrial space. This will slow the absorption of new industrial space in Village 2.
- There is support for industrial development, but Village 2 industrial is not likely to be fully developed until the long term.
- The industrial analysis shows support for 21.8 acres of industrial development in the next ten years, an average of 2.2 acres per year, assuming a mid-range capture of South San Diego industrial demand. This represents 23 percent of total industrial space within Village 2.
- Assuming a high capture rate of South San Diego industrial demand, Village 2 can support 34.8 acres of new industrial development in the next 10 years, or average of 3.5 acres per year.
- At the current projected rate of annual absorption, assuming the mid-range absorption, it would take 43 years to absorb all 94.4 acres of currently entitled industrial and 38 years to absorb all 82.5 acres of industrial in the Village 2 Amendment. Even assuming the high rate of absorption, 3.5 acres per year, it would take 27 years to absorb all of the industrial currently entitled and 24 years to absorb all of the industrial in the Village 2 Amendment.

## Retail Market Analysis Findings

- New Village 2 retail will have substantial competition for retail spending from the large existing cluster of big box retail at CA-125 and Olympic Parkway.
- With 2,983 new units, Village 2 is projected to support an additional 95,000 square feet of retail under existing entitlements. This is 35,000 square feet less than the 130,000 square feet of retail currently entitled for the village.
- With 4,545 new units, the Village 2 Amendment is expected to support 141,000 square feet of retail. The Village 2 Amendment is projected to support its proposed 130,000 square feet of retail.

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## Introduction

Baldwin & Sons (Developer) is currently preparing an amendment that proposes land use changes in the Otay Ranch Village 2 area and will impact surrounding villages.

As part of the City of Chula Vista's SPA amendment protocol, the City of Chula Vista (City) has requested an updated fiscal impact analysis (FIA), in addition to a Supplemental Environmental Impact Report and a Public Facilities Financing Plan (PFFP). The City is interested in encouraging and supporting balanced development that benefits the residents and economy of Chula Vista and is considering developing land use triggers or other development requirements as part of the PFFP and FIA. The City retained HR&A Advisors, Inc. (HR&A), an experienced fiscal consultant, to prepare a fiscal impact analysis of the proposed amendment as well as a market demand analysis of industrial and retail commercial uses to support the fiscal impact analysis.

The Village 2 Comprehensive Amendment analysis will be prepared with two analysis elements, a market demand analysis and fiscal impact analysis. The market analysis evaluates the existing supply of commercial uses within Otay Ranch and compares it to projected demand for the industrial and retail uses. This analysis will be used to prepare market-driven projected absorption estimates for industrial and retail uses within Village 2 and will be an input into the fiscal impact analysis. The demand analysis will also be used to understand the relative relationship between commercial absorption and residential absorption in Village 2 when evaluating sensitivity of the fiscal impact to development timing.

The fiscal impact analysis will be prepared based on the City's fiscal model for new development, the SPA Fiscal Impact Framework. To understand the incremental impact of the proposed Comprehensive SPA, the fiscal impact analysis will compare (1) the annual net revenues to the City of the Village 2 SPA as approved and, (2) the annual net revenues of Village 2 including the Comprehensive SPA amendment for an approximate 10 to 20-year period.

The following deliverable represents the market analysis.

# Project

The Village 2 Comprehensive SPA Amendment proposes 1,562 additional residential units, approximately 14 additional acres of commercial/residential mixed use, an 11.9-acre reduction in industrial, 6.3 additional acres of community purpose facilities (CPF), 12.2 additional acres of parkland (a portion of park acres will be included in Village 4), and a second elementary school in the Village 2 SPA of the Otay Ranch General Development Plan area.

The project requires amendments to the City of Chula Vista General Plan, the Otay Ranch General Development Plan, and the Village of Montecito & Otay Ranch Business Park Sectional Planning Area (SPA) plan for Villages Two, Three, and a portion of four, as well as four new tentative maps.

Village 2 is envisioned as an urban village in the Otay Ranch GDP and is planned for transit-oriented development with higher densities and mixed uses in the village core. Village 2 will be served in the future by Bus Rapid Transit (BRT) and will have a transit station along the village core. Village 2 is approximately 766 acres and located along the western edge of the Otay Valley Parcel, south of Olympic Parkway and west of La Media Road. Village 2 is currently entitled for development of 2,983 dwelling units in the Montecito SPA, 674 single-family units and 2,309 multi-family dwelling units.

Figure 1: Map of Otay Ranch Village 2



Source: Googlemaps, City of Chula Vista, and HR&A

# Demographics

The Otay Ranch Master Plan area is a recently established (and growing) area of Chula Vista. To better understand the context of the Otay Ranch Village 2 SPA, the Demographics section reviews the historical and projected population, household, and income characteristics within the Otay Ranch area, City of Chula Vista and San Diego County. Data evaluated includes US Census data, ESRI population and income estimates, and SANDAG growth forecasts.

## Population and Households

In 2012, the City of Chula Vista was estimated to have approximately 250,000 residents in 77,000 households as shown in Figure 2. The City of Chula Vista added more than 70,000 residents and 18,600 households between 2000 and 2012. Between 2000 and 2010 the City had a growth rate approximately three times the growth rate of San Diego County.

The comprehensive Otay Ranch Master Plan Villages make up approximately 17 percent of the City of Chula Vista residents.

The Otay Ranch population increased from 3,990 residents (1,140 households) in 2000 to 42,100 residents (11,920 households in 2012). Otay Ranch, still in development, makes up approximately 50 percent of the growth in the City of Chula Vista across the last decade. Otay Ranch's high annual population growth rate of 26 percent reflects the significant buildout of Otay Ranch during the housing boom. Much of this growth occurred during the housing boom at the start of the decade and leveled off with the recession. Between 2010 and 2012 the growth rate slowed significantly (to approximately 2 percent), but developers are looking to restart projects that stalled during the recession.

As also shown in Figure 2, both the City of Chula Vista and Otay Ranch have a higher average household size than the County. The County has an average household size of 2.75. The City of Chula Vista's household size of 3.21 is almost 20 percent higher, while Otay Ranch's average household size of 3.5 is almost 30 percent higher. The larger household sizes in Otay Ranch may be a reflection of the larger families that locate in the single-family homes available in the area.

**Figure 2: Historical Population and Households**

	Otay Ranch	Chula Vista	San Diego County	Otay Ranch % of Chula Vista	Chula Vista % of San Diego Co.
<b>Population</b>					
2000	3,990	175,855	2,813,833	2.3%	6.2%
2010	40,298	243,916	3,095,313	16.5%	7.9%
2012*	42,094	248,934	3,137,431	16.9%	7.9%
<b>Population Growth (CAGR)</b>					
2000 - 2010	26.0%	3.3%	1.0%	782.3%	347.2%
2010- 2012	2.2%	1.0%	0.7%	215.4%	150.9%
<b>Households</b>					
2000	1,136	58,336	994,677	1.9%	5.9%
2010	11,436	75,515	1,086,865	15.1%	6.9%
2012*	11,924	76,909	1,103,403	15.5%	7.0%
<b>Household Growth (CAGR)</b>					
2000 - 2010	26.0%	2.6%	0.9%	993.5%	293.7%
2010- 2012	2.1%	0.9%	0.8%	229.8%	121.2%
<b>Average Household Size</b>					
2000	3.45	2.99	2.73	115.4%	109.5%
2010	3.49	3.21	2.75	108.7%	116.7%
2012	3.5	3.21	2.75	109.0%	116.7%

Source: US Census, ESRI, HR&A Advisors

### Population and Household Projections

The San Diego Association of Governments (SANDAG) prepares 2008 to 2050 population and household growth projections for the San Diego region. Population projections for Chula Vista and County are shown in Figure 3.

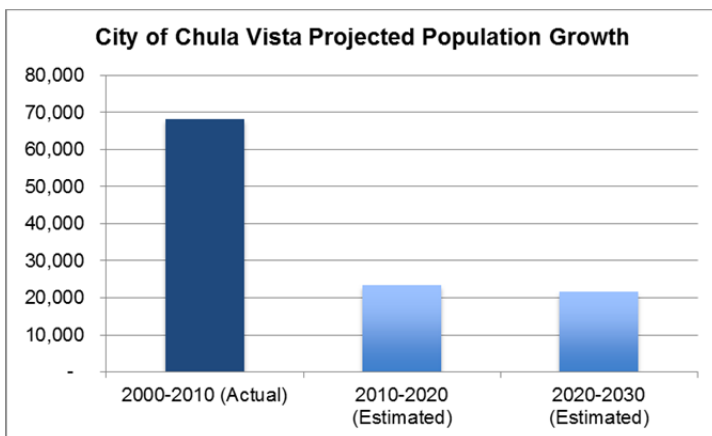
Between 2010 and 2030, the City of Chula Vista is anticipated to grow by 45,000 residents, from a population of 244,000 to 289,000. This represents a reduction in the expected Chula Vista population growth rate from 3.3 percent between 2000 to 2010 to 1.3 percent between 2010 and 2020.

In San Diego County the 2010-2020 household and population growth rate is projected to be slightly higher than the last decade and then is expected to decline beyond 2020. While new population and households will be added to the City, Chula Vista's 2010 - 2020 household growth rate is projected to slow considerably as compared with 2000 - 2010.

**Figure 3: Population and Household Projections**

	City of Chula Vista	San Diego County	Chula Vista as % of San Diego County
<b>Population Projections</b>			
Population Projections			
2010*	243,916	3,095,313	8%
2020	267,418	3,535,000	8%
2030	288,978	3,870,000	7%
<b>Annual Population Growth(CAGR)</b>			
2010-2020	0.9%	1.3%	69%
2020-2030	0.8%	0.9%	86%
<b>Household Projections</b>			
Household Projections			
2010*	75,515	1,086,865	7%
2020	84,502	1,200,966	7%
2030	91,246	1,309,474	7%
<b>Annual Household Growth (CAGR)</b>			
2010-2020	1.1%	1.0%	113%
2020-2030	0.8%	0.9%	89%

\*2010 data from 2010 decennial US Census



Source: SANDAG, US Census, HR&A Advisors

**Income**

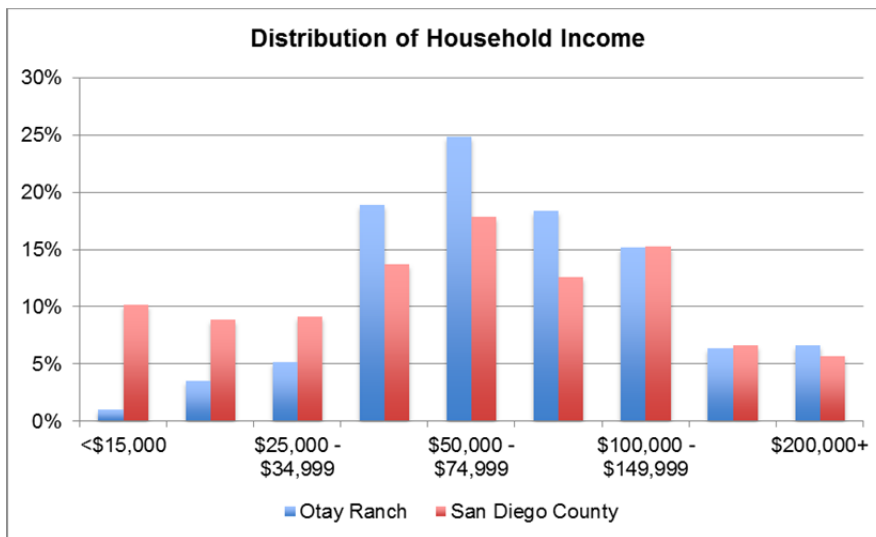
The City of Chula Vista’s 2012 median household income of \$57,000 is in line with but slightly lower than the San Diego County’s 2012 median household income of \$59,000 as shown in Figure 4. However, it should be noted that median household income in the Otay Ranch portion of Chula Vista is 23 percent higher than in San Diego County. Otay Ranch has a median income of \$70,000.

Average household incomes are higher, but hold to a similar pattern. City of Chula Vista average household income is \$74,000 and is almost 10 percent lower than San Diego County’s average household income of \$81,000. Otay Ranch’s average income is approximately \$90,000 in Otay Ranch and is 24 percent higher than San Diego County.

As a newly established community, Otay Ranch households must be able to afford the higher purchase and rental price of new construction homes as shown in Figure 4. The Otay Ranch area has a similar share of households making over a \$100,000 relative to San Diego County, but has a greater share of middle-income families. Only 10 percent of households earn below \$35,000 in Otay Ranch, relative to almost 30 percent in Chula Vista and San Diego County.

**Figure 4: 2012 Household Income**

	Otay Ranch	Chula Vista	San Diego County	Otay Ranch % of Chula Vista	Chula Vista % of San Diego Co.
Median Income	\$70,060	\$56,919	\$59,031	123%	96%
Average Income	\$91,471	\$73,833	\$80,814	124%	91%



Source: ESRI, HR&A Advisors

# Industrial

## Industrial Market

CoStar, a proprietary provider of real estate data, was used to capture San Diego market industrial historical performance trends and to better understand the industrial competitive supply. The industrial supply analysis reviews the comprehensive San Diego market and looks at the competitive Otay Ranch industrial submarkets. Otay Ranch is located within the Chula Vista industrial submarket, but is adjacent and closely linked to the Otay Mesa industrial market.

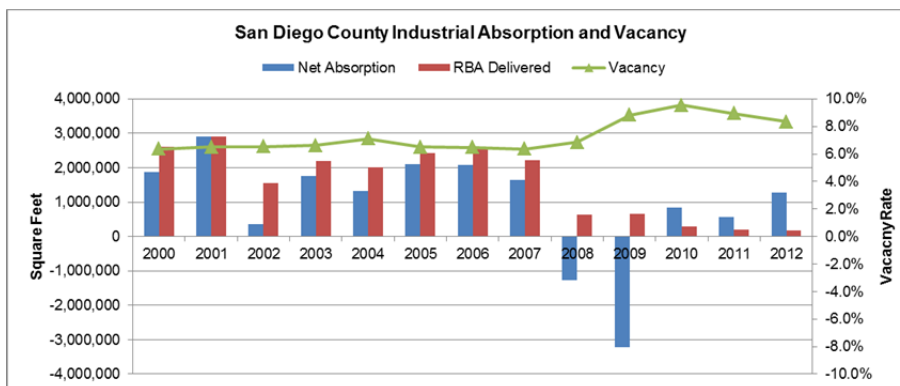
### San Diego Industrial Market

San Diego industrial space is supported by manufacturing, biomedical sciences, and the import and export of goods brought through the Port of San Diego and across the US Mexico border.

As shown in Figure 5, the overall San Diego industrial market was performing well in the beginning of the last decade, absorbing almost 1.8 million square feet of rentable building area (RBA) annually, up until the recession in 2008. Vacancies grew through the recession and peaked in 2010. The industrial market has been improving since 2010, but only 850,000 square feet of industrial space has been constructed since 2010.

Figure 5: San Diego County Industrial Trends

Period	# Bldgs	Total RBA	Total Vacant %	Total Net Absorption	No. of Bldg Delivered	RBA Delivered	No. of Bldg Under Const	RBA Under Const	Total Average Rate
2000	6,565	133,181,956	6.3%	1,867,353	72	2,598,054	49	2,609,065	\$6.97
2001	6,615	136,027,437	6.5%	2,911,438	55	2,896,995	31	1,211,063	\$7.53
2002	6,636	136,867,487	6.5%	367,217	40	1,543,337	29	1,724,875	\$7.55
2003	6,656	138,648,295	6.6%	1,755,490	46	2,189,733	77	1,890,898	\$7.60
2004	6,693	140,170,911	7.1%	1,315,561	76	2,019,122	43	1,730,851	\$7.93
2005	6,738	141,960,745	6.5%	2,103,231	57	2,428,820	94	1,667,398	\$8.84
2006	6,856	144,431,679	6.5%	2,080,149	124	2,604,390	37	1,571,702	\$9.13
2007	6,934	145,375,039	6.4%	1,632,034	92	2,214,334	41	392,685	\$9.40
2008	6,976	145,966,387	6.8%	-1,277,725	47	632,180	18	641,932	\$9.40
2009	6,957	146,183,694	8.8%	-3,221,922	19	647,608	2	233,020	\$8.88
2010	6,945	146,296,432	9.5%	849,505	3	286,770	1	176,000	\$8.10
2011	6,925	146,143,758	8.9%	566,568	2	192,000	1	49,256	\$8.98
2012	6,918	146,011,577	8.3%	1,268,469	2	179,101	2	147,548	\$8.21
3Q2013 YTD	6,916	146,050,677	7.7%	447,953	3	184,598	1	156,421	\$8.33



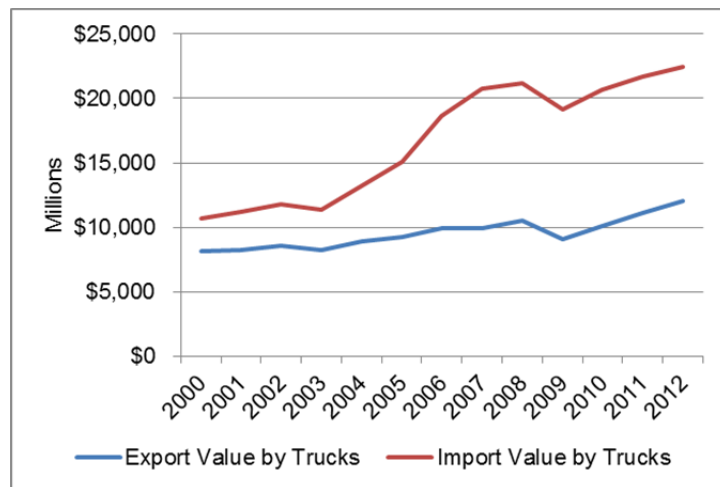
Source: CoStar and HR&A Advisors

### Otay Mesa and Chula Vista Markets

Both the Chula Vista and Otay Mesa industrial markets have been weak since the recession. While the rest of San Diego's industrial market has started to improve, Chula Vista's industrial market and Otay Mesa's industrial market, in particular, have struggled.

The market's weakness is the combination of the recession that hit the US starting in 2007 and the ongoing economic impact of the global recession on Mexico. Much of the industrial space, particularly in Otay Mesa, is used to support the warehouse and distribution of imported goods from Mexico. US imports of goods from Mexico have not fully recovered and the Mexican economy is just starting to improve. Foreign investment has been low in Mexico, but economists are expecting that Mexico will turn a corner and its economy will improve in the next few years<sup>1</sup>.

**Figure 6: Trade with Mexico through Otay Mesa Port (US \$Millions)**



Source: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, TransBorder Freight Data and HR&A Advisors

### Chula Vista Industrial Submarket

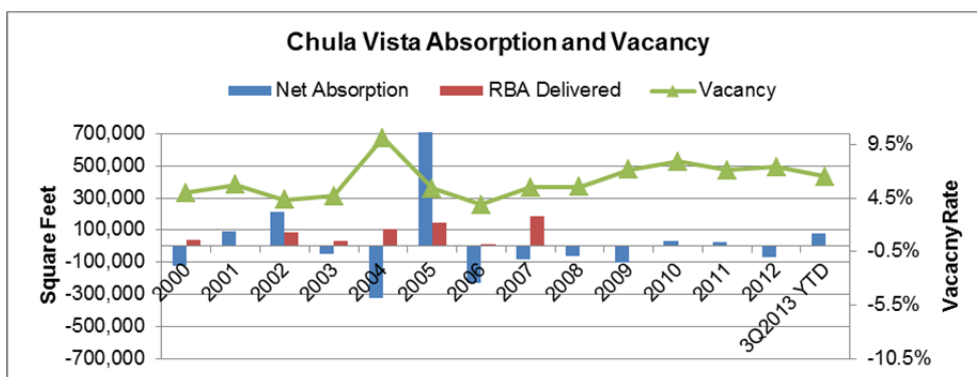
The Chula Vista submarket has 8.6 million square feet of RBA and makes up 6 percent of the San Diego county industrial space. With smaller industrial spaces (and, likely, a greater diversification of users within the industrial space) the Chula Vista submarket has performed better than Otay Mesa's industrial market. As shown in Figure 7:

- 615,000 square feet was delivered to the Chula Vista submarket between 2000 and 2010 but nothing has been constructed or delivered since the recession.
- The Chula Vista industrial market performance was variable in the last decade. Between 2000 and 2007, 250,000 square feet of new space was leased, but the absorption each year was variable. Since 2008, a total of 100,000 square feet has been vacated.
- Lease rates fell 34 percent since peak pricing of \$9.66 PSF in 2007 and are continuing to decrease.

<sup>1</sup> "Mexico's Economy: Reality Bites." **The Economist**. May 25, 2013.  
HR&A Advisors, Inc.

**Figure 7: Chula Vista Industrial Submarket Trends**

Period	# Bldgs	Total RBA	Total Vacant %	Total Net Absorption	# RBA Delivered	RBA Delivered	RBA Under Const	RBA Under Const	Average Rate
2000	327	8,433,912	5.0%	-118,337	3	40,017	0	0	\$5.39
2001	327	8,433,912	5.7%	94,956	0	0	2	62,180	\$6.82
2002	331	8,521,011	4.3%	213,333	4	87,099	1	31,302	\$7.63
2003	332	8,552,313	4.7%	-47,816	1	31,302	3	156,341	\$6.93
2004	334	8,659,302	10.1%	-323,843	2	106,989	2	79,398	\$7.01
2005	340	8,806,680	5.4%	737,277	6	147,378	1	13,000	\$8.75
2006	341	8,819,680	3.9%	-226,158	1	13,000	1	76,916	\$9.02
2007	344	8,722,326	5.5%	-78,912	6	189,338	0	0	\$9.66
2008	344	8,722,326	5.5%	-60,529	0	0	0	0	\$8.54
2009	344	8,722,326	7.1%	-103,284	0	0	0	0	\$7.09
2010	344	8,722,326	7.9%	31,237	0	0	0	0	\$6.51
2011	344	8,722,326	7.1%	23,199	0	0	0	0	\$6.91
2012	342	8,636,560	7.4%	-68,215	0	0	0	0	\$6.29
3Q2013 YTD	342	8,636,560	6.5%	77,273	0	0	0	0	\$6.32



Source: CoStar and HR&A Advisors

**Otay Mesa Industrial Submarket**

With 13.6 million square feet, the Otay Mesa submarket makes up 9 percent of the San Diego industrial space. The Otay Mesa industrial market is extremely soft. As shown in Figure 8:

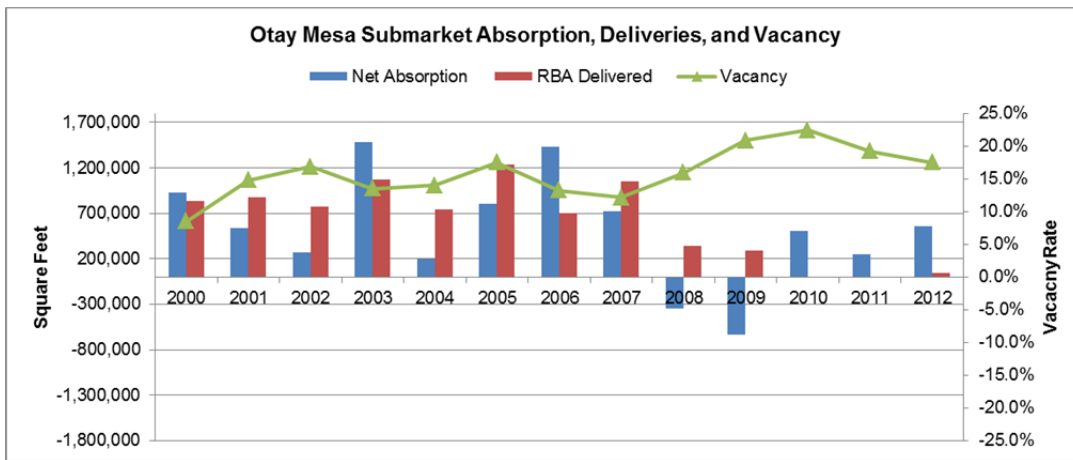
- Currently the submarket has a vacancy rate of 16 percent, more than double the County average of near 8 percent and Otay Mesa’s vacancy rate of almost 7 percent.
- There is more than 600,000 square feet of existing vacant industrial space in Otay Mesa to be absorbed before new space is built.
- Otay Mesa lease rates have been reduced by approximately 20 percent from their peak pricing of \$6.95 in 2007 to a current rate of \$5.68 per square foot.

The amount of vacant space in the Otay Mesa submarket will need to be absorbed and will impact the development of new space in the Chula Vista submarket.



**Figure 8: Otay Mesa Industrial Trends**

Period	# Bldgs	Total RBA	Total Vacant %	Total Net Absorption	No. of Bldgs Delivered	RBA Delivered	No. of Bldgs Under Const	RBA Under Const	Total Average Rate
2000	168	6,447,292	8.5%	925,609	11	837,995	15	875,928	\$5.91
2001	183	7,323,220	14.8%	533,801	15	875,928	10	528,033	\$6.16
2002	197	8,101,233	16.9%	273,396	14	778,013	5	872,448	\$6.00
2003	202	9,177,218	13.5%	1,486,869	5	1,075,985	15	405,138	\$6.11
2004	213	9,919,255	14.0%	196,216	11	742,037	23	733,318	\$6.21
2005	245	11,163,460	17.5%	804,537	31	1,234,131	6	509,057	\$6.54
2006	258	11,864,447	13.2%	1,434,443	13	700,987	9	1,022,946	\$6.63
2007	268	12,919,199	12.2%	723,421	10	1,054,752	37	347,462	\$6.95
2008	305	13,266,661	15.9%	-348,038	37	347,462	2	294,142	\$6.92
2009	307	13,560,803	20.9%	-629,924	2	294,142	0	0	\$6.60
2010	307	13,560,803	22.4%	503,837	0	0	0	0	\$5.73
2011	307	13,560,803	19.3%	248,173	0	0	1	49,256	\$5.75
2012	308	13,610,059	17.5%	555,257	1	49,256	0	0	\$5.74
3Q2013 YTD	308	13,610,059	16.0%	-169,365	0	0	0	0	\$5.68



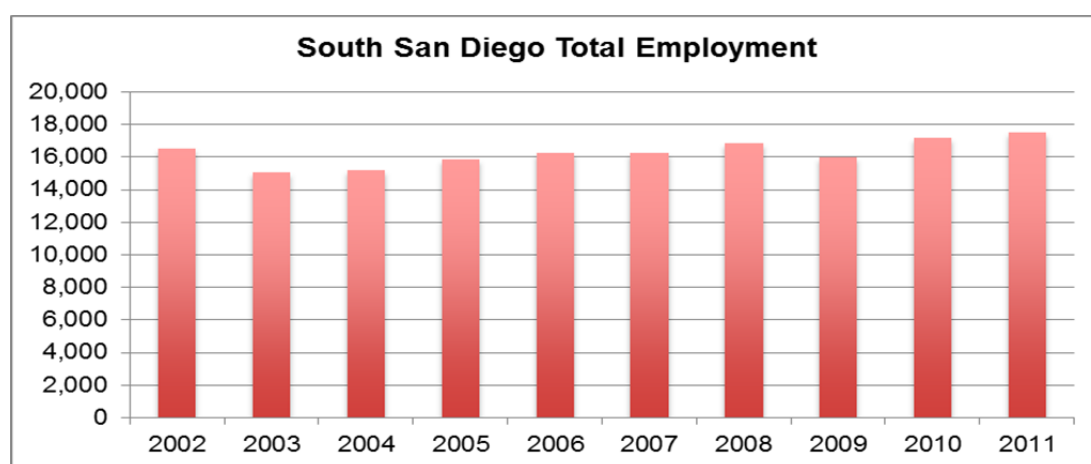
Source: CoStar and HR&A Advisors

## Industrial Demand

Industrial demand is estimated based on projections of new industrial employment (and associated industrial space need) within the South San Diego region.

Census QCEW OnTheMap data (shown in Figure 9) was used to review current and historical employment trends in the Chula Vista South San Diego region. The analysis evaluated 2002 to 2011 employment for an industrial market area that includes the City of Chula Vista and the City of San Diego Community Plan Areas of Otay Mesa, Otay Mesa-Nestoor, and San Ysidro. 2000 total employment in this region was 66,000 in 2002 and grew to just under 83,100 in 2011, an annual growth rate of 2.32 percent. In this area there was only a slight dip in employment in 2009 relative to 2008. However, the recession did impact the annual employment growth rate which moved from an average of 2.71 percent between 2002 to 2008 to an average of 2.32 percent between 2008 and 2011.

Figure 9: South San Diego Employment (2002 - 2012)



Source: Census QCEW OntheMap, HR&A Advisors

### Industrial Demand Methodology

The following outlines the key analysis steps in estimating Village 2 industrial demand:

- The industrial demand analysis uses the historical Census OnTheMap data employment growth rate (2002 -2011) to project future employment growth between 2011 and 2022.
- An estimated share of employment that utilize industrial space, by industry, is then applied to the total employment projections to project industrial employment in the South San Diego region.
- Using an estimated average square feet per industrial employee factor, incremental projected industrial employment figures are translated into projected industrial RBA demand for the South San Diego region. Comparing total industrial space in the South San Diego region, approximately 23 million, to the estimated current industrial employees of approximately 17,700, results in an average of approximately 1,350 SF per employee. Given that industrial space per employee is likely to become more compact with increased efficiency as well as the higher cost of land, as supply is absorbed, we use an industry average of 1,250 SF per employee is utilized in making forward RBA demand projections.

- To estimate the capture of the Chula Vista submarket, the current inventory of the Chula Vista market was compared to the inventory for the South San Diego region. Chula Vista makes up approximately 36 percent of the inventory. With the I-805, I-125, and Otay Mesa Port, the City of Chula Vista is well located to service import and export businesses moving goods to and from Mexico. The demand analysis assumes Chula Vista can capture approximately 40 percent of the market in the next 10 years.

**Figure 10: South San Diego Industrial Inventory**

South San Diego Submarkets	Rentable Building Area	Share of Total
Otay Mesa Industrial Submarket	13,610,059	57.2%
Chula Vista Industrial Submarket	8,636,560	36.3%
San Ysidro Industrial Submarket	1,530,221	6.4%
<b>Benchmark South San Diego Region</b>	<b>23,776,840</b>	<b>100%</b>

Source: CoStar and HR&A Advisors

- Village 2 SPA currently has approximately 88 acres of industrial land, approximately 20 percent of Chula Vista’s available industrial lands<sup>2</sup>. Relative to other areas in Chula Vista, Village 2 is well located in close proximity to the I-125 toll road and the Otay Mesa Port. The Village 2 SPA capture depends on the development of other industrial space in Chula Vista and is estimated between 15 percent and 40 percent of Chula Vista.
- Square feet are translated into acres assuming a FAR of 0.35 for industrial land.

**Industrial Demand**

Using the methodology outlined above, HR&A estimates demand for industrial acres in Village 2. Detailed tables for current employment and the allocation of employment by industrial user are included in the Appendix.

Figure 11 presents the projected industrial user employees between 2012 and 2023. Based on historical estimates of growth, industrial users are expected to grow from 17,700 to 20,500 by 2023.

- Between 2013 and 2018, 1,100 new industrial-using employees are projected demanding 1.38 million square feet of industrial space.
- Between 2018 and 2023, 1,549 new industrial-using employees are projected, demanding 1.9 million square feet of industrial space.
- Based on an estimated Chula Vista submarket capture rate of 40 percent of regional growth and a Village 2 capture rate between 15 and 40 percent, we estimate that between 2013 and 2018, Village 2 can absorb 5.4 to 14.5 industrial acres or 1.1 to 2.9 acres a year and 1.5 to 4 acres a year between 2018 and 2023.

It should be noted that this analysis is somewhat conservative in assuming that industrial jobs are only attracted from the South San Diego region. Other studies may consider the capture rate of all of San Diego County under the premise that the South San Diego region has the most developable industrial land available and may actually capture employees from other parts of the County.

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<sup>2</sup> According to SAN DAG, the City of Chula Vista has approximately 507 vacant industrial acres.  
HR&A Advisors, Inc.

**Figure 11: Industrial Demand Analysis**

<b>S. San Diego Industrial -Using Jobs</b>	<b>2013</b>	<b>2015</b>	<b>2018</b>	<b>2020</b>	<b>2023</b>
Agriculture, Forestry, Fishing and Hunting	106	111	118	124	132
Mining, Quarrying, and Oil and Gas Extraction	1	1	1	1	1
Utilities	211	252	330	395	517
Construction	375	352	321	301	274
Manufacturing	6,802	6,604	6,318	6,134	5,868
Wholesale Trade	4,048	4,141	4,286	4,386	4,539
Retail Trade	776	826	908	967	1,063
Transportation and Warehousing	3,036	3,264	3,638	3,910	4,358
Information	43	42	40	39	37
Finance and Insurance	0	0	0	0	0
Real Estate and Rental and Leasing	253	261	275	284	299
Professional, Scientific, and Technical Servcs	165	182	212	234	272
Management of Companies and Enterprises	0	0	0	0	0
Admin & Support, Waste Mngmt.	655	683	727	758	807
Educational Services	0	0	0	0	0
Health Care and Social Assistance	458	493	551	594	664
Arts, Entertainment, and Recreation	122	145	188	224	291
Accommodation and Food Services	437	466	511	544	598
Other Services (excluding Public Admin.)	348	407	517	606	769
Public Administration	0	0	0	0	0
<b>Total Industrial Jobs</b>	<b>17,834</b>	<b>18,231</b>	<b>18,942</b>	<b>19,502</b>	<b>20,490</b>

<b>Industrial Demand</b>	<b>2013- 2018</b>	<b>2018 - 2023</b>	<b>Total</b>
Industrial Employment Growth	1,108	1,549	<b>2,657</b>
Square Feet (SF) per Industrial Job	1,250	1,250	1,250
S. San Diego Region Industrial Demand (SF)	1,384,636	1,936,070	<b>3,320,707</b>
Chula Vista Submarket Capture (SF)      40%	553,855	774,428	<b>1,328,283</b>
Village 2 Capture (SF)	<u>Est. Capture</u> <u>Rate Range</u>		
Low      15%	83,078	116,164	<b>199,242</b>
Mid      25%	138,464	193,607	<b>332,071</b>
High     40%	221,542	309,771	<b>531,313</b>
<i>Estimated Acres @ FAR of</i>	<i>0.35</i>		
<i>Low</i>	<i>5.4</i>	<i>7.6</i>	<i>13.1</i>
<i>Mid</i>	<i>9.1</i>	<i>12.7</i>	<i>21.8</i>
<i>High</i>	<i>14.5</i>	<i>20.3</i>	<i>34.8</i>

Source: US Census LC QEW OntheMap, HR&A Advisors

# Retail

## Retail Supply

Chula Vista retail is spread across two retail submarkets, the Eastlake submarket and Chula Vista submarket. Figure 13, on the next page, maps the shopping centers in the two markets. Otay Ranch retail will compete primarily with the Eastlake shopping centers as well as the four Chula Vista shopping centers located east of the I-805.

### Eastlake Shopping Center Performance

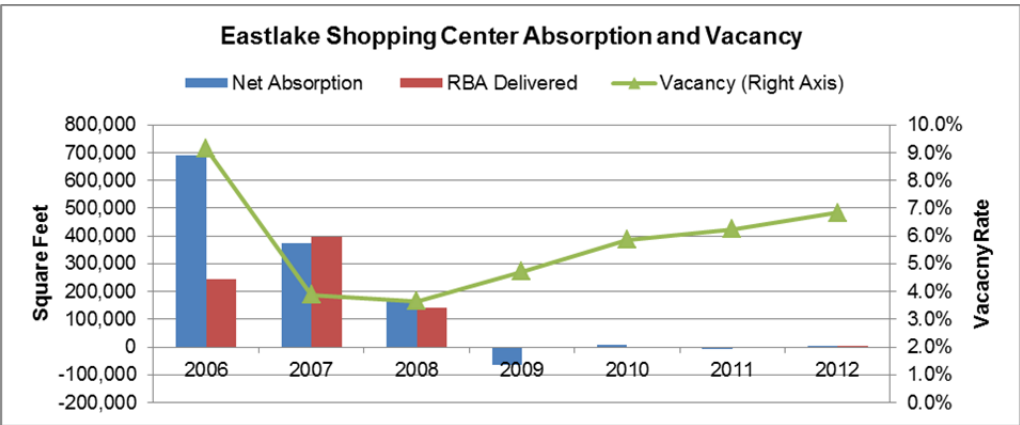
There are currently 2.3 million square feet of Rentable Building Area (RBA) in shopping centers in the Eastlake Submarket.

All of the Eastlake centers were built in the last decade. The Otay Ranch Town Center was built in 2006 and three other shopping centers, with approximately 540,000 square feet of space, have been added since 2006. Only 2,500 square feet has been added since 2008.

As shown in Figure 12, with the addition of Otay Ranch Center, vacancy rates jumped up to 9 percent, but as the space was absorbed vacancies fell back to a low 4 percent in 2007 and 2008. With the recession retail vacancy rates climbed to almost 7 percent.

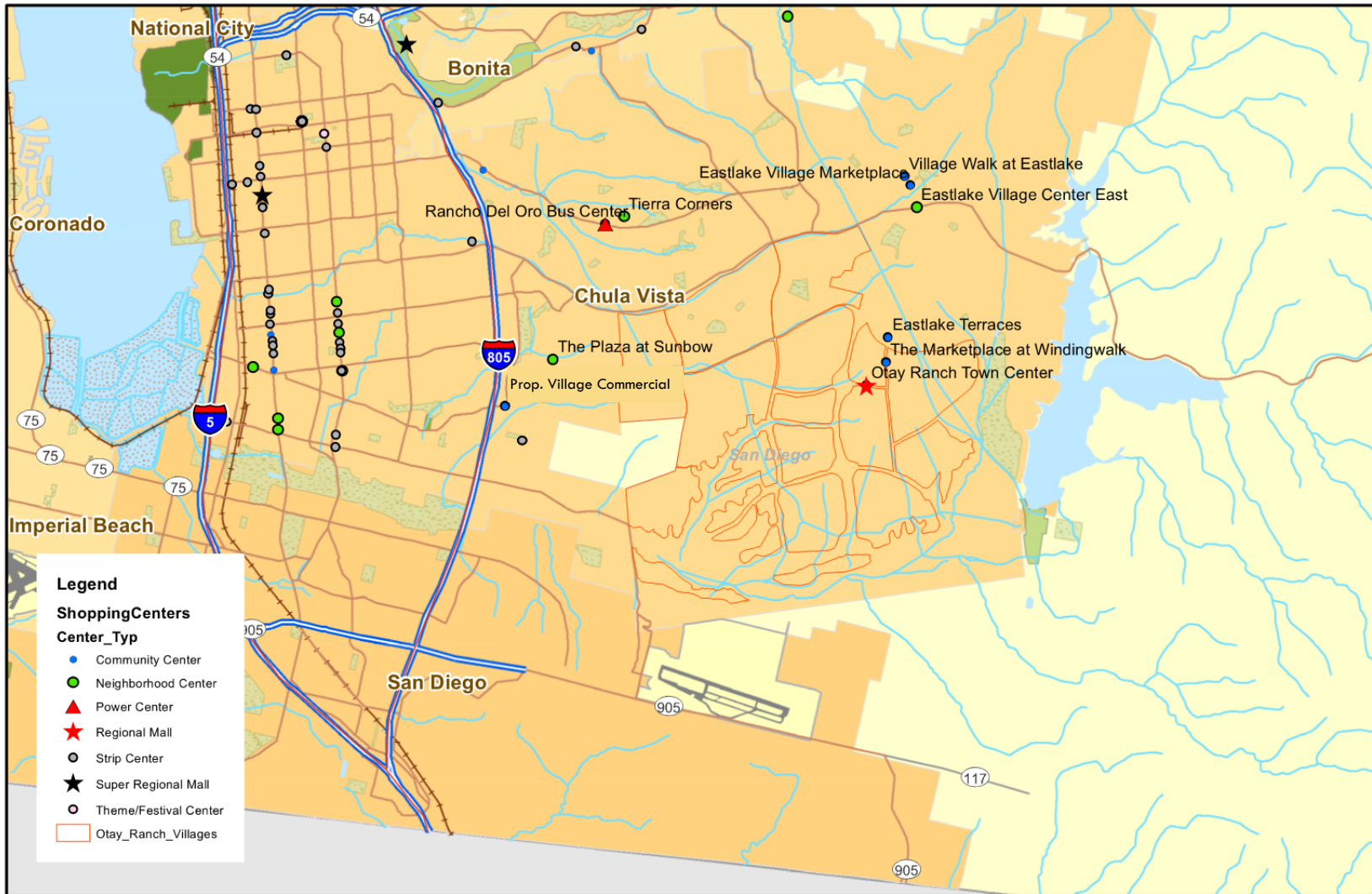
Figure 12: Historical Eastlake Shopping Center Performance

Period	# Bldgs	Total RBA	Total Vacant SF	Total Vacant %	Total Net Absorption	RBA Delivered	RBA Under Const
2006	75	1,790,484	156,393	9.1%	690,959	242,459	239,436
2007	84	2,186,546	80,522	3.9%	374,104	396,062	151,452
2008	91	2,337,998	82,065	3.6%	167,264	141,635	0
2009	91	2,337,998	110,422	4.7%	-63,274	0	0
2010	91	2,337,998	137,257	5.9%	8,680	0	0
2011	91	2,337,998	146,151	6.3%	-7,756	0	2,500
2012	92	2,340,498	159,895	6.8%	4,634	2,500	0
3Q2013 YTD	92	2,340,498	156,511	6.7%	-6,596	0	0



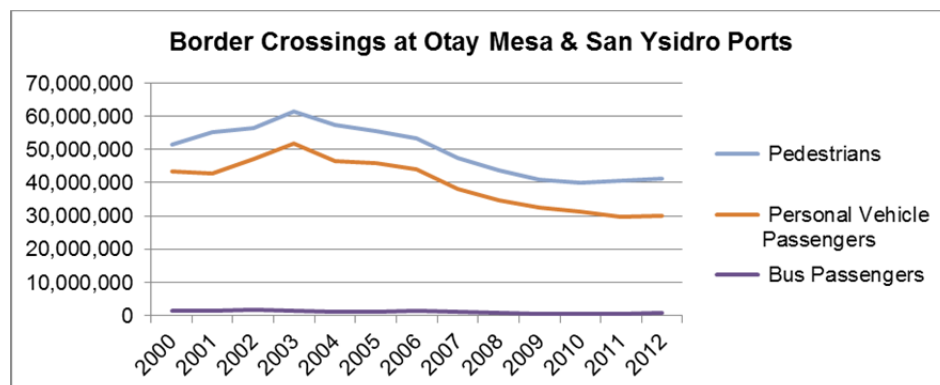
Source: CoStar and HR&A Advisors

Figure 13: Chula Vista and Eastlake Retail Centers



While the US recession ended in 2009, retail continues to be impacted by the more permanent lower level of US consumer spending. In addition, retail in the Eastlake area is impacted by reduced consumer spending from Mexican visitors (See Figure 14) who made up a significant share of Chula Vista area retail spending. Retail impacts include increased vacancy and a significant decline in retail lease rates after 2006 as well.

**Figure 14: Pedestrian, Bus, and Passenger Vehicle Border Crossings**



Source: US Department of Transportation and HR&A

### Competitive Shopping Centers

Figure 15, on the next page, presents a list of shopping centers east of the Interstate-805. Any proposed retail in Village 2 will have to compete with the cluster of retail near at the CA-125 South Bay Expressway and Olympic Parkway and other clusters along CA -125.

The Otay Ranch Towne Center is approximately 700,000 square feet of regional-serving shopping center. This particular property was opened right before the recession in 2006 and, in recent years, has struggled to fill space. The center is 90 percent occupied, and occupancy is increasing.

There is over 1.0 million square feet in community-serving shopping centers within the competitive area. These centers include both grocery stores and big box retailers, such as Walmart, Target, and the Home Depot.

The three reported neighborhood centers include 260,000 square feet of RBA. The Plaza at Sunbow, which includes a Ralph's and CVS, is the closest neighborhood center to Village 2, but will be less competitive than the cluster of retail at Olympic Parkway and CA-125.

As presented previously in the Figure 13, there is a significant amount of retail within the competitive area.

### Planned and Proposed Retail

The Otay Ranch Town Center, part of the Freeway Commercial SPA, will include an additional 180,000 square feet of regional-serving retail and the second, currently vacant portion of the Freeway Commercial SPA Freeway is proposed to include 115,000 to 347,000 square feet of retail uses within.

There is a reported proposed village retail, a community center on Olympic Parkway, that is anticipated to open in 2015. In addition, many of the Otay Ranch villages include neighborhood serving retail centers.

**Figure 15: Competitive Shopping Centers**

Center Type/Name	Address	Submarket	Rentable Building Area	Anchor Tenant	% Leased	Year Built
<b>Regional Mall</b>						
Otay Ranch Town Center	2015 Birch Rd	Eastlake Ret	703,360	Macy's, REI, H & M	90.74	2006
<b>Power Center</b>						
Rancho Del Oro Bus Center	895 E H St	Chula Vista Ret	529,949	Kmart, Costco, Home Depot, Jerome's Furniture	100.00	1994
<b>Community Center</b>						
Eastlake Village Marketplace	910 Eastlake Pky	Eastlake Ret	397,210	Lowe's, Target	100.00	2003
Eastlake Terraces	1480 Eastlake Pky	Eastlake Ret	310,751	Walmart, Walgreens, Home Depot	98.76	2004
Village Walk at Eastlake	Eastlake Pky @ Miller Rd	Eastlake Ret	201,553	Sprouts, PETCO, Pier 1 Imports	97.81	2007
The Marketplace at Windingwalk	1745 Eastlake Pky	Eastlake Ret	151,452	Vons	90.54	2008
			<u>1,060,966</u>		<u>97.87</u>	
<b>Neighborhood Center</b>						
Eastlake Village Center East	2315 Otay Lakes Rd	Eastlake Ret	118,807	Kohl's	96.62	2004
The Plaza at Sunbow	605 E Palomar St	Chula Vista Ret	105,503	Ralphs Grocery Company, CVS Pharmacy	98.61	2001
Tierra Corners	1020 Tierra del Rey	Chula Vista Ret	37,676		100.00	1998
			<u>261,986</u>		<u>97.91</u>	
<b>Strip Center</b>						
	1655 Brandywine Ave	Chula Vista Ret	8,718		100	

Source: Costar and HR&A Advisors



## **Retail Demand**

The growing Village 2 area and greater Otay Ranch Master Plan area population will support new retail developments. Retail demand is driven by the number of households/residents in the market area and the amount they spend on retail purchases. The retail demand analysis provides guidance on the amount of new retail that may be supported within Village 2 based on the number of dwelling units under current entitlements and by the new proposed dwelling units in the amended scenario.

As described in the supply analysis, there is a substantial share of community and regional-serving retail already located within the 3 – 8 mile range that residents are willing to drive for general purchases (Macy's, Target, Home Depot, Walmart). However, new residents are likely to desire and support convenience neighborhood retail, such as grocery stores and other more frequent purchases, closer to home, in the 0 – 2 mile range.

### Retail Demand Methodology

The retail demand study first estimates the number of households anticipated in Village 2 within the next 5 to 10 years under current entitlements and the Village 2 Amendment. Household absorption has been estimated based on an analysis of historical City of Chula Vista single family and multi-family home absorption and a review of the City of Chula Vista 2012 5 Year Growth Forecast Report.

To estimate the retail spending per household, HR&A reviewed San Diego average retail spending per household as reported by the Board of Equalization. There is approximately \$45 billion in retail spending countywide, or \$41,000 per household. It should be noted that the San Diego average spending per household includes spending by Mexican visitors and other tourist visitor spending. This analysis assumes that the Village 2 retail will capture Mexican cross-border spending at an equivalent rate as the San Diego County average. Proposed Village 2 retail is not in the prime location to capture Mexican visitor spending, nonetheless its proximity to Otay Mesa is likely to make the retail capture of Mexican visitor spending within the County average.

San Diego County retail spending has been adjusted to account for estimated tourism visitor spending in Figure 16. Visitor spending is reported at \$7.5 billion in 2011 by the San Diego Convention and Visitors Board. Visitor spending includes retail, but also such categories as accommodation and transportation spending. Using countywide hotel tax receipts also reported by the San Diego Convention and Visitors Board, it is estimated that there is approximately \$1.8 billion in visitor spending on accommodations. Visitor restaurant and food service spending is estimated at 50 percent of the balance, or \$2.9 billion, and other retail spending is estimated at 20 percent of spending, or \$1.1 billion. After adjustments for visitor spending average household spending is \$37,000 per household.

**Figure 16: 2011 San Diego County Annual Taxable Retail Sales**

Type of Business	San Diego County (000s)	Visitor Spend. Adj. San Diego County (000s)
Retail and Food Services		
Motor Vehicle and Parts Dealers	\$5,059,516	\$5,059,516
Auto. Parts, Accessories and Tire Stores	\$548,121	\$548,121
Home Furnishings and Appliance Stores	\$894,741	\$894,741
Electronics and Appliance Stores	\$1,315,328	\$1,315,328
Bldg. Matrl. And Garden Equip. and Supplies	\$2,072,358	\$2,072,358
Food and Beverage Stores	\$2,010,404	\$1,820,817
Gasoline Stations	\$4,437,173	\$4,437,173
Clothing and Clothing Accessories Stores	\$2,988,756	\$2,706,908
General Merchandise Stores	\$4,528,053	\$4,101,045
Health and Personal Care Stores	\$869,965	\$869,965
Food Services and Drinking Places	\$5,214,419	\$2,356,620
Other Retail Group	\$2,594,579	\$2,349,903
<b>Total Retail and Food Services</b>	<b>\$31,985,292</b>	<b>\$27,984,373</b>
All Other Outlets	\$13,105,090	\$13,105,090
<b>Totals All Outlets</b>	<b>\$45,090,382</b>	<b>\$41,089,463</b>
<b>Spending per Household</b>	<b>\$41,407</b>	<b>\$37,733</b>

Source: CA Board of Equalization and HR&A

County wide retail spending per household is then adjusted to account for the difference in income between the Otay Ranch area and San Diego County. Additionally, the retail demand analysis looks to only capture spending in standard retail store categories. Thus, gas sales, automotive sales, and retail in Other Outlets are excluded in Figure 17.

An estimate of the share of retail sales that are taxable by industry are applied to taxable sales to estimate total retail sales.

**Figure 17: Otay Ranch Adjusted Retail Spending per Household**

Type of Business	San Diego County	Otay Ranch Village
2012 Average HH Income	\$80,814	\$91,471
	<b>Taxable Sales Per Household (2011)</b>	<b>Est. Total Per HH Sales</b>
<b>Spending by Type of Business</b>	<b>Taxable Share</b>	<b>Income Adjusted per HH Spending</b>
Retail and Food Services		
Auto. Parts, Accessories and Tire Stores	\$503 100%	\$503 \$548
Home Furnishings	\$822 100%	\$822 \$913
Electronics and Appliance Stores	\$1,208 100%	\$1,208 \$1,343
Bldg. Matrl. And Garden Equip. and Supplies	\$1,903 100%	\$1,903 \$2,115
Food and Beverage Stores	\$1,672 40%	\$4,180 \$4,482
Clothing and Clothing Accessories Stores	\$2,486 100%	\$2,486 \$2,747
General Merchandise Stores	\$3,766 95%	\$3,964 \$4,395
Health and Personal Care Stores	\$799 60%	\$1,331 \$1,476
Food Services and Drinking Places	\$2,164 80%	\$2,705 \$2,941
Other Retail Group	\$2,158 100%	\$2,158 \$2,361
<b>Total Retail and Food Services</b>	<b>\$17,481</b>	<b>\$21,261 \$23,322</b>

Source: HR&A

Average retail spending per household is then applied to projected new households in Village 2 to estimate total retail spending by category.

As mentioned above, there will be significant competition for retail spending from existing retail centers in the Otay Ranch area, but Village 2 is still likely to capture local neighborhood spending, such as food and grocery, food service, health and drug purchases and other convenience purchases. Capture rates are applied to estimate the amount of each category of retail spending by new Village 2 residents that is likely to occur in a neighborhood shopping center.

**Retail Demand Estimates**

Retail demand is estimated for Village 2 under existing entitlements and under the Village 2 Amendment.

*Village 2 Existing Entitlements*

Assuming that 2,980 new residents will be absorbed within Village 2 in the next 10 years under existing entitlements, SPA residents will generate \$60 million in spending, Figure 18.

**Figure 18: Estimated Retail Spending of Village 2 Residents (Existing Entitlements)**

	Income Adj. per Capita Spending	2014 - 2019 (includes Existing)	2019 - 2024	2024-2028
<b>Primary Market (Village 2)</b>				
Population Growth		2,531	452	
<b>Estimated Spending</b>				
Retail and Food Services				
Auto. Parts, Accessories and Tire Stores	\$473	\$1,197,997	\$213,945	\$0
Home Furnishings	\$789	\$1,996,533	\$356,552	\$0
Electronics and Appliance Stores	\$1,160	\$2,935,034	\$524,155	\$0
Bldg. Matrl. And Garden Equip. and Supplies	\$1,827	\$4,624,278	\$825,829	\$0
Food and Beverage Stores	\$3,871	\$9,798,005	\$1,749,782	\$0
Clothing and Clothing Accessories Stores	\$2,372	\$6,004,617	\$1,072,338	\$0
General Merchandise Stores	\$3,796	\$9,606,948	\$1,715,662	\$0
Health and Personal Care Stores	\$1,275	\$3,226,748	\$576,251	\$0
Food Services and Drinking Places	\$2,540	\$6,428,500	\$1,148,037	\$0
Other Retail Group	\$2,039	\$5,161,896	\$921,840	\$0
<b>Total Estimated Retail Spending (Excluding Vehicles and Gas)</b>		<b>\$50,980,556</b>	<b>\$9,104,390</b>	<b>\$0</b>

Source: HR&A

Considering the retail within the competitive market, Village 2 is likely to capture approximately \$34 million of this spending, or 56 percent, as shown in Figure 19.

**Figure 19: Village 2 (Existing Entitlements) Retail Spending Capture**

Primary Market (Village 2)	City Share of Market	Est. Neighborhood/Community Center Retail Capture	2014 - 2019	2019 - 2024	2024-2028
<b>Capture of Retail Spending</b>					
Auto. Parts, Accessories and Tire Stores	100%	70%	\$838,598	\$149,761	\$0
Home Furnishings	100%	15%	\$299,480	\$53,483	\$0
Electronics and Appliance Stores	100%	15%	\$440,255	\$78,623	\$0
Bldg. Matrl. And Garden Equip. and Supplies	100%	40%	\$1,849,711	\$330,332	\$0
Food and Beverage Stores	100%	90%	\$8,818,204	\$1,574,804	\$0
Clothing and Clothing Accessories Stores	100%	20%	\$1,200,923	\$214,468	\$0
General Merchandise Stores	100%	60%	\$5,764,169	\$1,029,397	\$0
Health and Personal Care Stores	100%	80%	\$2,581,399	\$461,000	\$0
Food Services and Drinking Places	100%	65%	\$4,178,525	\$746,224	\$0
Other Retail Group	100%	50%	\$2,580,948	\$460,920	\$0
<b>Total Estimated Retail Spending (Excl. Vehicles and Gas)</b>			<b>\$28,552,212</b>	<b>\$5,099,012</b>	<b>\$0</b>

Source: HR&A

As shown in Figure 20, in total, Village 2, under existing entitlements, is likely to support approximately 95,000 square feet of new retail.

Major retail demand categories include food and beverage stores, general merchandise, health and personal care stores, and food services and drinking places.

**Figure 20: Village 2 (Existing Entitlements) Estimated Retail Demand Square Feet**

Primary Market ( Village 2)	Est, Sales per SF	2014 - 2018	2019 - 2023	2024-2028	Total
<b>Retail Spending Category</b>		<b>Retail Space (SF)</b>			
Auto. Parts, Accessories and Tire Stores	\$300	2,795	499	0	3,295
Home Furnishings	\$350	856	153	0	1,008
Electronics and Appliance Stores	\$400	1,101	197	0	1,297
Bldg. Matrl. And Garden Equip. and Supplies	\$275	6,726	1,201	0	7,927
Food and Beverage Stores	\$425	20,749	3,705	0	24,454
Clothing and Clothing Accessories Stores	\$350	3,431	613	0	4,044
General Merchandise Stores	\$350	16,469	2,941	0	19,410
Health and Personal Care Stores	\$300	8,605	1,537	0	10,141
Food Services and Drinking Places	\$375	11,143	1,990	0	13,133
Other Retail Group	\$300	8,603	1,536	0	10,140
<b>Total Estimated Retail Square Feet Supported</b>		<b>80,477</b>	<b>14,372</b>	<b>0</b>	<b>94,849</b>

Source: HR&A

### Village 2 Amendment

Assuming that 4,545 new residents will be absorbed within Village 2 in the next 10 years under the Village 2 Amendment , SPA residents will generate \$90 million in spending, Figure 18.

**Figure 21: Estimated Retail Spending of Village 2 Residents (Amendment Scenario)**

Primary Market (Village 2)	Income Adj. per Capita Spending	2014 - 2019 (includes Existing)	2019 - 2024	2024-2028
Population Growth		2,531	1,430	584
<b>Estimated Spending</b>				
<b>Retail and Food Services</b>				
Auto. Parts, Accessories and Tire Stores	\$461	\$1,167,668	\$659,725	\$269,426
Home Furnishings	\$769	\$1,945,988	\$1,099,472	\$449,015
Electronics and Appliance Stores	\$1,130	\$2,860,730	\$1,616,295	\$660,081
Bldg. Matr. And Garden Equip. and Supplies	\$1,781	\$4,507,207	\$2,546,545	\$1,039,988
Food and Beverage Stores	\$3,773	\$9,549,954	\$5,395,668	\$2,203,545
Clothing and Clothing Accessories Stores	\$2,312	\$5,852,602	\$3,306,685	\$1,350,423
General Merchandise Stores	\$3,700	\$9,363,734	\$5,290,454	\$2,160,577
Health and Personal Care Stores	\$1,243	\$3,145,059	\$1,776,939	\$725,687
Food Services and Drinking Places	\$2,476	\$6,265,753	\$3,540,113	\$1,445,753
Other Retail Group	\$1,988	\$5,031,215	\$2,842,607	\$1,160,897
<b>Total Estimated Retail Spending (Excluding Vehicles and Gas)</b>		<b>\$49,689,909</b>	<b>\$28,074,504</b>	<b>\$11,465,392</b>

Source: HR&A

Considering the retail within the competitive market, the Village 2 Amendment scenario is likely to capture approximately \$50 million of this spending, or 56 percent, as shown in Figure 19.

**Figure 22: Village 2 (Amendment Scenario) Retail Spending Capture**

Primary Market (Village 2)	City Share of Market	Est. Neighborhood/ Community Center Retail Capture	2014 - 2019	2019 - 2024	2024-2028
<b>Capture of Retail Spending</b>					
Auto. Parts, Accessories and Tire Stores	100%	70%	\$817,367	\$461,808	\$188,598
Home Furnishings	100%	15%	\$291,898	\$164,921	\$67,352
Electronics and Appliance Stores	100%	15%	\$429,109	\$242,444	\$99,012
Bldg. Matr. And Garden Equip. and Supplies	100%	40%	\$1,802,883	\$1,018,618	\$415,995
Food and Beverage Stores	100%	90%	\$8,594,959	\$4,856,101	\$1,983,191
Clothing and Clothing Accessories Stores	100%	20%	\$1,170,520	\$661,337	\$270,085
General Merchandise Stores	100%	60%	\$5,618,241	\$3,174,273	\$1,296,346
Health and Personal Care Stores	100%	80%	\$2,516,047	\$1,421,552	\$580,550
Food Services and Drinking Places	100%	65%	\$4,072,739	\$2,301,074	\$939,739
Other Retail Group	100%	50%	\$2,515,607	\$1,421,303	\$580,448
<b>Total Estimated Retail Spending (Excl. Vehicles and Gas)</b>			<b>\$27,829,371</b>	<b>\$15,723,430</b>	<b>\$6,421,317</b>

Source: HR&A

As shown in Figure 20, in total, the Village 2 Amendment is likely to support approximately 141,000 square feet of new retail.

**Figure 23: Village 2 Amendment Estimated Retail Demand (Square Feet)**

Primary Market ( Village 2)		2014 - 2018	2019 - 2023	2024-2028	Total
Retail Spending Category	Est. Sales per SF	Retail Space (SF)			
Auto. Parts, Accessories and Tire Stores	\$300	2,725	1,539	629	4,893
Home Furnishings	\$350	834	471	192	1,498
Electronics and Appliance Stores	\$400	1,073	606	248	1,926
Bldg. Matrl. And Garden Equip. and Supplies	\$275	6,556	3,704	1,513	11,773
Food and Beverage Stores	\$425	20,223	11,426	4,666	36,316
Clothing and Clothing Accessories Stores	\$350	3,344	1,890	772	6,006
General Merchandise Stores	\$350	16,052	9,069	3,704	28,825
Health and Personal Care Stores	\$300	8,387	4,739	1,935	15,060
Food Services and Drinking Places	\$375	10,861	6,136	2,506	19,503
Other Retail Group	\$300	8,385	4,738	1,935	15,058
<b>Total Estimated Retail Square Feet Supported</b>		<b>78,440</b>	<b>44,318</b>	<b>18,099</b>	<b>140,857</b>

Source: HR&A

*Retail Conclusions*

Under existing entitlements Village 2 is projected to support 95,000 square feet of retail. This is 35,000 square feet less than the 130,000 square feet of retail currently entitled for the village. However, the Village 2 Amendment is projected to support its proposed 130,000 square feet of retail.

# Appendix

**Appendix Figure 1: South San Diego Historical Employment**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	CAGR 2002 - 2011
Agriculture, Forestry, Fishing and Hunting	206	206	249	233	205	256	386	261	1,256	255	2.16%
Mining, Quarrying, and Oil and Gas Extraction	1	0	1	1	1	0	0	0	6	2	7.18%
Utilities	180	150	179	197	181	233	316	360	678	441	9.37%
Construction	2,721	2,322	2,719	2,582	2,945	2,902	2,364	2,376	1,874	1,993	-3.07%
Manufacturing	8,549	7,046	6,696	6,982	6,994	7,138	7,275	7,024	6,894	7,375	-1.47%
Wholesale Trade	3,713	3,732	3,685	3,842	4,067	3,904	4,073	3,738	4,149	4,164	1.15%
Retail Trade	10,634	11,005	11,410	12,199	12,648	13,371	12,960	12,536	13,594	14,570	3.20%
Transportation and Warehousing	2,071	2,008	2,368	2,496	2,566	2,495	2,644	2,543	2,779	2,973	3.68%
Information	1,015	858	736	765	800	799	853	710	887	883	-1.38%
Finance and Insurance	1,631	1,756	1,893	2,016	2,088	2,075	2,078	1,955	2,235	2,136	2.73%
Real Estate and Rental and Leasing	1,379	1,506	1,431	1,490	1,463	1,433	1,376	1,412	1,366	1,630	1.69%
Professional, Scientific, and Technical Servcs	1,798	2,119	2,348	2,597	2,662	2,228	2,202	2,545	2,869	2,975	5.16%
Management of Companies and Enterprises	520	554	569	451	228	488	565	432	483	427	-1.95%
Admin & Support, Waste Mngmt.	2,549	2,766	2,757	2,930	2,839	2,447	2,940	2,173	2,883	3,140	2.11%
Educational Services	12,782	11,475	12,413	12,852	13,127	12,650	13,216	13,093	12,918	12,651	-0.10%
Health Care and Social Assistance	5,855	6,368	6,569	6,959	6,783	7,264	7,881	8,253	8,591	8,498	3.80%
Arts, Entertainment, and Recreation	856	1,127	1,173	1,196	1,361	1,646	1,756	1,913	2,025	2,047	9.11%
Accommodation and Food Services	6,013	6,219	6,491	6,618	6,593	7,032	7,490	7,404	7,952	8,217	3.17%
Other Services (excluding Public Admin.)	2,680	2,925	2,983	3,323	3,838	5,624	6,012	6,248	6,293	5,930	8.27%
Public Administration	911	954	997	1,056	1,121	1,166	1,183	1,131	3,104	2,779	11.80%
<b>Total Jobs</b>	<b>66,064</b>	<b>65,096</b>	<b>67,667</b>	<b>70,785</b>	<b>72,510</b>	<b>75,151</b>	<b>77,570</b>	<b>76,107</b>	<b>82,836</b>	<b>83,086</b>	<b>2.32%</b>

Source: Census LQEW and HR&A



**Appendix Figure 2: Industrial Job Estimation**

	Industrial %	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	CAGR
Agriculture, Forestry, Fishing and Hunting	40%	82	82	100	93	82	102	154	104	502	102	2.16%
Mining, Quarrying, and Oil and Gas Extraction	25%	0	0	0	0	0	0	0	0	2	1	7.18%
Utilities	40%	72	60	72	79	72	93	126	144	271	176	9.37%
Construction	20%	544	464	544	516	589	580	473	475	375	399	-3.07%
Manufacturing	95%	8,122	6,694	6,361	6,633	6,644	6,781	6,911	6,673	6,549	7,006	-1.47%
Wholesale Trade	95%	3,527	3,545	3,501	3,650	3,864	3,709	3,869	3,551	3,942	3,956	1.15%
Retail Trade	5%	532	550	571	610	632	669	648	627	680	729	3.20%
Transportation and Warehousing	95%	1,967	1,908	2,250	2,371	2,438	2,370	2,512	2,416	2,640	2,824	3.68%
Information	5%	51	43	37	38	40	40	43	36	44	44	-1.38%
Finance and Insurance	0%	0	0	0	0	0	0	0	0	0	0	
Real Estate and Rental and Leasing	15%	207	226	215	224	219	215	206	212	205	245	1.69%
Professional, Scientific, and Technical Servcs	5%	90	106	117	130	133	111	110	127	143	149	5.16%
Management of Companies and Enterprises	0%	0	0	0	0	0	0	0	0	0	0	
Admin & Support, Waste Mngmt.	20%	510	553	551	586	568	489	588	435	577	628	2.11%
Educational Services	0%	0	0	0	0	0	0	0	0	0	0	
Health Care and Social Assistance	5%	293	318	328	348	339	363	394	413	430	425	3.80%
Arts, Entertainment, and Recreation	5%	43	56	59	60	68	82	88	96	101	102	9.11%
Accommodation and Food Services	5%	301	311	325	331	330	352	375	370	398	411	3.17%
Other Services (excluding Public Admin.)	5%	134	146	149	166	192	281	301	312	315	297	8.27%
Public Administration	0%	0	0	0	0	0	0	0	0	0	0	
<b>Total Jobs</b>		<b>16,474</b>	<b>15,064</b>	<b>15,178</b>	<b>15,835</b>	<b>16,211</b>	<b>16,239</b>	<b>16,798</b>	<b>15,990</b>	<b>17,173</b>	<b>17,492</b>	<b>0.60%</b>

Source: Census LQEW and HR&A

**Appendix Figure 3: Historical Chula Vista Absorption**

Housing Units	Single Family	Multi Family	Total
2000	35,671	19,975	55,646
2001	37,215	20,441	57,656
2002	39,286	21,305	60,591
2003	40,969	22,545	63,514
2004	42,986	23,235	66,221
2005	45,163	24,066	69,229
2006	46,446	25,308	71,754
2007	47,133	26,067	73,200
2008	47,614	26,417	74,031
2009	47,817	26,722	74,539
2010	51,938	27,478	79,416
2011	52,155	27,625	79,780
2012	52,522	27,886	80,408
Change in Housing	Single Family	Multi Family	Total
2000			
2001	1,544	466	2,010
2002	2,071	864	2,935
2003	1,683	1,240	2,923
2004	2,017	690	2,707
2005	2,177	831	3,008
2006	1,283	1,242	2,525
2007	687	759	1,446
2008	481	350	831
2009	203	305	508
2010	190	200	390
2011	217	147	364
2012	367	261	628

Source: California Department of Finance E-5 Data and HR&A

**Appendix Figure 4: Chula Vista Forecasted Growth (Based on permits)**

<b>Growth Forecast Report</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Average</b>
<b><u>Village 2</u></b>					
Single Family	115	85	103	49	112
Multi Family	137	98	95	37	154
<b><u>Other Otay Ranch Villages</u></b>					
Single Family	86	239	355	400	236
Multi Family	220	668	715	711	473
<b><u>Total Otay Ranch</u></b>					
<b>Single Family</b>	<b>201</b>	<b>324</b>	<b>458</b>	<b>449</b>	<b>348</b>
<b>Multi Family</b>	<b>357</b>	<b>766</b>	<b>810</b>	<b>748</b>	<b>628</b>
<b>Total</b>	<b>558</b>	<b>1,090</b>	<b>1,268</b>	<b>1,197</b>	<b>975</b>
<b>Total Eastern Chula Vista</b>	<b>615</b>	<b>1,092</b>	<b>1,276</b>	<b>1,205</b>	<b>1,107</b>
<b>Total Chula Vista</b>	<b>662</b>	<b>1,219</b>	<b>1,448</b>	<b>1,210</b>	<b>1,180</b>

Source: City of Chula Vista 2012 Residential Growth Forecast Report

**Appendix Figure 5: Estimated Village 2 Residential Absorption**

<b>Preliminary Residential Unit Absorption Estimate</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>Village 2</b>											
Single Family	100	150	200	200	200	200	200	200	200	200	200
Multi Family	200	300	300	300	300	400	400	400	400	400	400
<b>Total Village 2 Units</b>	<b>300</b>	<b>450</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>600</b>	<b>600</b>	<b>600</b>	<b>600</b>	<b>600</b>	<b>600</b>

Source: HR&A