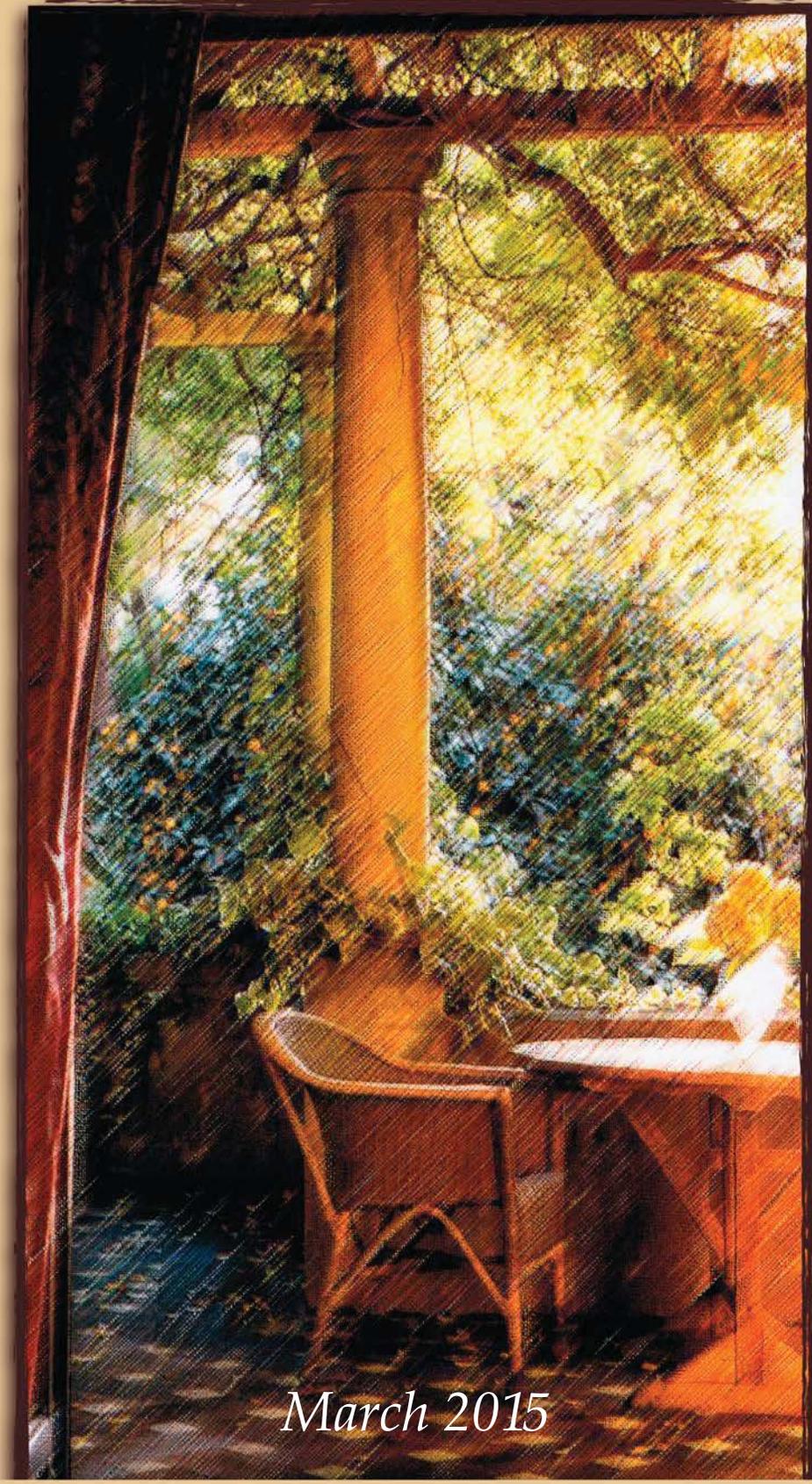


OTAY RANCH RESORT VILLAGE



March 2015

PUBLIC FACILITY FINANCE PLAN

The Otay Ranch Resort Village PFFP

OTAY RANCH RESORT VILLAGE; GPA 04-03, SP 04-002, REZ 04-009, TM 5361

ER # 04-19-005

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

A. Overview 1

B. Information Provided in this PFFP 2

C. General Conditions of this PFFP 2

D. Proposed Public Facility Improvements 3

1.0 INTRODUCTION 9

1.1 Overview 9

1.2 Otay SRP Thresholds 9

1.3 Facility Analysis 10

2.0 LAND USE ASSUMPTIONS 13

2.1 Purpose 13

2.2 Existing Development 13

2.3 Otay Ranch Resort Village Development Summary 13

2.4 Conceptual Project Phasing 16

2.5 Population-based Analysis 17

3.0 DRAINAGE FACILITIES 19

3.1 Otay SRP Threshold 19

3.2 Service Analysis 19

3.3 Project Processing Requirements 19

3.4 Existing Conditions 20

3.5 Project Demand and Proposed Facilities 21

3.6 Adequacy Analysis 28

3.7 Inventory and Estimated Costs of Future Required Drainage Facilities 29

3.8 Threshold Compliance 30

3.9 Drainage Facilities Phasing 30

3.10 Drainage Facilities Financing 31

4.0 SEWERAGE FACILITIES 33

4.1 Otay SRP Threshold 33

4.2 Service Analysis 33

4.3 Project Processing Requirements 33

4.4 Existing Conditions 34

4.5 Project Demand and Proposed Facilities 34

4.6 Adequacy Analysis 40

4.8 Threshold Compliance 42

4.9 Sewerage Facilities Improvement Phasing 42

4.10 Financing Sewerage Facilities 42

5.0 TRANSPORTATION SYSTEMS FACILITIES 45

5.1 Otay SRP Threshold 45

5.2 Service Analysis 45

5.3 Project Processing Requirements 46

5.4 Existing Conditions 47

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

5.5	<i>Project Demand and Proposed Facilities</i>	49
5.6	<i>Adequacy Analysis</i>	52
5.7	<i>Inventory of Required Traffic Improvements</i>	54
5.8	<i>Threshold Compliance</i>	55
5.9	<i>Phasing Transportation Facilities</i>	55
5.10	<i>Financing Transportation Facilities</i>	58
6.0	URBAN RUNOFF FACILITIES	59
6.1	<i>Otay SRP Threshold</i>	59
6.2	<i>Service Analysis</i>	59
6.3	<i>Project Processing Requirements</i>	60
6.4	<i>Existing Conditions</i>	60
6.5	<i>Project Demand and Proposed Facilities (Developed Condition)</i>	61
6.6	<i>Adequacy Analysis</i>	69
6.7	<i>Inventory and Estimated Costs of Future Required Urban Runoff Facilities</i>	70
6.8	<i>Threshold Compliance</i>	71
6.9	<i>Urban Runoff Facilities Phasing</i>	71
6.10	<i>Financing Urban Runoff Facilities</i>	72
7.0	WATER FACILITIES	73
7.1	<i>Otay SRP Threshold</i>	73
7.2	<i>Service Analysis</i>	73
7.3	<i>Project Processing Requirements</i>	74
7.4	<i>Existing Conditions</i>	74
7.5	<i>Project Demand and Proposed Facilities</i>	76
7.6	<i>Adequacy Analysis</i>	79
7.7	<i>Inventory and Estimated Costs of Future Required Water Facilities</i>	79
7.8	<i>Threshold Compliance</i>	80
7.9	<i>Phasing Water Facilities</i>	82
7.10	<i>Financing Water Facilities</i>	81
8.0	CIVIC FACILITIES	85
8.1	<i>Otay SRP Threshold</i>	85
8.2	<i>Service Analysis</i>	85
8.3	<i>Project Processing Requirements</i>	85
8.4	<i>Existing Conditions</i>	85
8.5	<i>Project Demand and Proposed Facilities</i>	86
8.6	<i>Adequacy Analysis</i>	86
8.7	<i>Threshold Compliance</i>	86
8.8	<i>Financing Civic Facilities</i>	87
9.0	FIRE AND EMERGENCY PROTECTION FACILITIES	89
9.1	<i>Otay SRP Threshold</i>	89
9.2	<i>Service Analysis</i>	89
9.3	<i>Project Processing Requirements</i>	90
9.4	<i>Existing Conditions</i>	90
9.5	<i>Project Demand and Proposed Facilities</i>	91

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

9.6	<i>Adequacy Analysis</i>	92
9.7	<i>Inventory of Future Required Facilities and Staffing</i>	93
9.8	<i>Threshold Compliance</i>	94
9.9	<i>Financing Fire Service Facilities</i>	96
10.0	LAW ENFORCEMENT FACILITIES	97
10.1	<i>Otay SRP Threshold</i>	97
10.2	<i>Service Analysis</i>	97
10.3	<i>Project Processing Requirements</i>	97
10.4	<i>Existing Conditions</i>	97
10.5	<i>Project Demand and Proposed Facilities</i>	98
10.6	<i>Adequacy Analysis</i>	99
10.7	<i>Inventory of Future Required Facilities</i>	99
10.8	<i>Threshold Compliance</i>	99
10.9	<i>Financing Law Enforcement Facilities</i>	100
11.0	LIBRARY FACILITIES	101
11.1	<i>Otay SRP Threshold</i>	101
11.2	<i>Service Analysis</i>	101
11.3	<i>Project Processing Requirements</i>	101
11.4	<i>Existing Conditions</i>	101
11.5	<i>Project Demand</i>	105
11.6	<i>Adequacy Analysis</i>	105
11.7	<i>Inventory of Future Required Facilities</i>	105
11.8	<i>Threshold Compliance</i>	105
11.9	<i>Financing Library Facilities</i>	105
12.0	PARKS AND RECREATION FACILITIES	107
12.1	<i>Otay SRP Threshold</i>	107
12.2	<i>Service Analysis</i>	107
12.3	<i>Project Processing Requirements</i>	108
12.4	<i>Existing Conditions</i>	108
12.5	<i>Project Demand and Proposed Facilities</i>	109
12.6	<i>Adequacy Analysis</i>	112
12.7	<i>Inventory and Cost Estimate of Future Facilities</i>	113
12.8	<i>Threshold Compliance</i>	113
12.9	<i>Parks and Recreation Facilities Improvements Phasing</i>	115
12.10	<i>Financing Park Facilities</i>	115
13.0	SCHOOL FACILITIES	117
13.1	<i>Otay SRP Threshold</i>	117
13.2	<i>Service Analysis</i>	117
13.3	<i>Project Processing Requirements</i>	118
13.4	<i>Existing Conditions</i>	119
13.5	<i>Project Demand and Proposed Facilities</i>	122
13.6	<i>Adequacy Analysis</i>	126
13.7	<i>Inventory of Future Required Facilities</i>	126
13.8	<i>Threshold Compliance</i>	126

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

13.9	<i>Financing School Facilities</i>	127
14.0	ANIMAL CONTROL FACILITIES	129
14.1	<i>Otay SRP Threshold</i>	129
14.2	<i>Service Analysis</i>	129
14.3	<i>Project Processing Requirements</i>	129
14.4	<i>Existing Conditions</i>	129
14.5	<i>Project Demand and Proposed Facilities</i>	130
14.6	<i>Adequacy Analysis</i>	130
14.7	<i>Inventory of Future Required Facilities</i>	131
14.8	<i>Threshold Compliance</i>	131
14.9	<i>Financing Animal Control Facilities</i>	131
15.0	REGIONAL FACILITIES PLANS	133
15.1	<i>Otay SRP Requirement</i>	133
15.2	<i>Service Analysis</i>	133
16.0	PUBLIC FACILITY FINANCING	137
16.1	<i>Overview</i>	137
16.2	<i>Subdivision Exactions</i>	137
16.3	<i>Development Impact Fee Programs</i>	138
16.4	<i>Debt Financing Programs</i>	138
16.5	<i>County General Fund</i>	138
16.6	<i>Other Methods Used to Finance Facilities</i>	150

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

LIST OF EXHIBITS

EXHIBIT A:	Project Location Map	10
EXHIBIT B:	Site Utilization Map	15
EXHIBIT C:	Phasing Map.	17
EXHIBIT D:	Project Watersheds and Drainage Control Facilities	23
EXHIBIT E:	Existing Off-site Sewer Facilities	35
EXHIBIT F:	Proposed Sewer Facilities ...	38
EXHIBIT G:	Proposed Lift Stations Facilities. ...	39
EXHIBIT H:	Adopted County General Plan Circulation Map	48
EXHIBIT I:	Proposed General Plan Mobility Element Roadway Map (Otay)	51
EXHIBIT J:	Urban Pollution Control Basin Facilities Plan	65
EXHIBIT K:	Water Facilities Plan.	81
EXHIBIT L:	County Administration Civic Facilities	88
EXHIBIT M:	Fire Response Modeling.	95
EXHIBIT N:	County Library Facilities	104
EXHIBIT O:	Otay Ranch Village Preserve, Parks, Recreation, Open Space and Trails Plan.	111

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

LIST OF TABLES

Table 1:	Summary of Project Public Facility Improvements	4
Table 2	Construction and Responsibilities for Facilities and Infrastructure	6
Table 3:	Proposed Project Land Use Summary	14
Table 4:	Resort Village Phasing Forecast Summary	16
Table 5:	Proposed Project Population Projection	18
Table 6:	Project Onsite Watersheds (Existing Condition)	21
Table 7:	Post-Development Watershed Area	24
Table 8:	Post Development 100-Year Peak Flows	26
Table 9:	Inventory of Major Drainage Trunk Facilities	29
Table 10:	Drainage Facilities Improvements.	31
Table 11:	Project EDU Projections	35
Table 12:	Inventory of Major Sewerage Facilities	41
Table 13:	Phasing of Sewerage Facility Improvements.	42
Table 14:	SDCSD Annexation Fee.	43
.		
Table 15	Salt Creek Basin Impact Fees.	43
Table 16:	City of Chula Vista Connection Fees	44
Table 17:	Project Model Land Use Assumptions & Trip Generation	49
Table 18:	Required Buildout Intersection Improvements.	54
Table 19:	Required Buildout Street Segment Improvements – Chula Vista . . .	56
Table 20:	Required Buildout Street Segment Improvements - County	56
Table 21	Onsite Transportation Facilities Improvements Phasing.	57
Table 22:	Proposed Project Runoff Characteristics	61
Table 23:	Post Development Volume Based 85 th % Calculations	62
Table 24:	Pre and Post-Development 85 th % Peak Flows	66
Table 25:	Urban Runoff Basin Design Data	68
Table 26:	Inventory of Urban Runoff Protection Facilities	70
Table 27:	Runoff Facilities Improvements	71
Table 28	Water Duty Factors.	76
Table 29:	Proposed Project Projected Potable Water Demands	77
Table 30:	Inventory of Major Water Distribution Trunk Facilities	80
Table 31:	County Civic Facilities Inventory	86
Table 32:	Rural Fire Protection District Fire Station Inventory	91
Table 33	Emergency Travel Times from Proposed Public Safety Site.	92
Table 34	Capital Costs.	93
Table 35	SDRFPD Operational Costs.	94
Table 36	Estimated SDRFPD Fire Mitigation Fee.	96

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

Table 37:	Existing San Diego County Library Facilities	102
Table 38:	Existing Parks within Otay Local Park Planning Area	108
Table 39:	Existing Regional Park Inventory	109
Table 40:	Existing Neighborhood Park Inventory	109
Table 41:	Future Otay Ranch Community Parks	109
Table 42:	Projected Conveyance Requirement	110
Table 43:	Inventory of Park Facilities	114
Table 44:	Local Park Improvements Phasing	115
Table 45:	Chula Vista Elementary School District Enrollments	119
Table 46:	Sweetwater Union Middle School Enrollments	121
Table 47:	Sweetwater Union High School Enrollments	121
Table 48:	Student Generation Factors	122
Table 49:	Student Generation by Development Phase	122
Table 50:	School Size Standards	123
Table 51:	Estimate of School Costs	128
Table 52:	General Assumptions in Fiscal Analysis	139
Table 53:	Estimated Non-Residential Sales Tax Revenues	141
Table 54:	Estimated Off-Site Sales Tax Revenues	142
Table 55:	Estimated TOT Revenue	143
Table 56:	Estimated Property Transfer Tax Revenue	144
Table 57:	Estimated In Lieu MVLF Revenue	145
Table 58:	Net Fiscal Impact	150

Executive Summary

A. Overview

The Growth Management Chapter of the *Otay Subregional Plan Volume 2* (Otay SRP) contains goals, policies, objectives and implementation measures governing the development of Otay Ranch to assure the efficient and timely provision of public facilities concurrent with demand and in compliance with facility-specific policies and thresholds. Processing and approval of this Public Facilities Financing Plan (PFFP) is required in conjunction with preparation of the Otay Ranch Resort Village Specific Plan to ensure the Project is consistent with the overall goals and policies of the Otay SRP. This PFFP is consistent with the overall Village Phasing Plan adopted by the County Board of Supervisors in October 1993, which includes the Project. The Village Phasing Plan provides that the Resort Village is within the First Eastern Phase.

As a developer receives each succeeding development approval, the Otay SRP requires the applicant perform specific steps leading to the timely provision of the required facilities. The concept is illustrated below (Otay SRP, p. 348):

Performance of Facility Thresholds:

OTAY SRP

- *Goals, objectives and policies established.*
- *Facility thresholds established.*
- *Processing requirements established.*

SPECIFIC PLAN

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

TENTATIVE MAP

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

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

- *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 PFFP analysis begins by assessing the demand for facilities based upon the demand from existing development and those projects with approved final and tentative maps. Public facility demands of the Otay Ranch Resort Village (Resort Village), pursuant to a phasing projection of the future development of the project, is then analyzed to estimate how much, and at what time additional or upgraded facilities will be needed to ensure a particular facility does not fall beneath the adopted facility performance threshold. When specific thresholds are projected to be reached or exceeded, the PFFP provides recommended remedial action necessary for continued compliance with the Otay SRP.

B. Information Provided in this PFFP

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 thresholds, including (Otay SRP, pp. 348-349):

- *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 Specific Plan consistency with the requirements and conclusions of the Otay Ranch Service Revenue Plan.*

C. General Conditions of this PFFP

1. All development within the proposed Project shall conform to the provisions and conditions of this PFFP.
2. All development within the proposed Project shall be required to pay applicable development impact fees for public facilities and other applicable

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

fees pursuant to the most recently adopted programs by the County Board of Supervisors and applicable service agencies or districts, and as amended from time-to-time.

3. This PFFP shall be implemented in accordance with the Otay SRP.
4. 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 proposed Project shall undergo development review and approval in accordance with County regulations.
5. The facilities and phasing requirements identified in this PFFP are based on an assumed projection of development. If a less intense development or fewer residential units are actually constructed, facility and phasing requirements shall be adjusted accordingly.
6. This PFFP includes a phasing plan. This forecast is not to be considered absolute. Alternative phasing may occur. The actual number of dwelling units and other uses to be constructed in any particular phase will vary depending upon economic and other external conditions.

D. Proposed Public Facility Improvements

This PFFP analysis concludes that a number of public facility improvements will be required of the developer of the proposed Project in order to achieve compliance with the adopted thresholds. These improvements are listed in the following Table. Please refer to Table 6 of the Resort Village Specific Plan for a list of construction responsibilities for the following improvements.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

Table 1: Summary of Project Public Facility Improvements¹

Improvement
DRAINAGE FACILITIES
<ul style="list-style-type: none"> · Storm Drains in internal streets. · Seven (7) Water Quality Basins. Eight (8) Vegetated Bio-retention Swales · Upgrade culverts (14) under Otay Lakes Rd.
SEWERAGE FACILITIES
<ul style="list-style-type: none"> · Onsite Lift Stations (3) · Onsite Force main · Offsite Force main · Offsite Gravity Sewer · Sewer Lines in internal streets
TRANSPORTATION SYSTEM FACILITIES
<ul style="list-style-type: none"> · Signalized intersection at Otay Lakes Rd./Wueste Rd. · Widen Otay Lakes Road from 2 lanes to 4 lanes from Lake Crest Drive to Strada Piazza (Phases 1 and 2) Improve Otay Lakes Road from Strada Piazza to Strada Raveena (Phase 3) · Onsite circulation roadways within Project.
URBAN RUNOFF FACILITIES
<ul style="list-style-type: none"> · Seven (7) Water Quality Basins. Eight (8) Vegetated Bio-retention Swales Upgrade culverts (14) under Otay Lakes Rd.
WATER FACILITIES
<ul style="list-style-type: none"> · 980-4 Reservoir (5.0 million gallon capacity) · Extend 20" Water Transmission line in Otay Lakes Rd to 908-4 Reservoir. · Extend 20" Water line in Strada Piazza to Strada Raveena · Water lines in internal streets
FIRE PROTECTION AND EMERGENCY FACILITIES
<ul style="list-style-type: none"> · Reserve Public Safety Site. Enter into a "Fire Service Agreement"
LAW ENFORCEMENT FACILITIES
<ul style="list-style-type: none"> · Reserve Public Safety Site or location with Multiple Use Planning Area.
PARKS AND RECREATION FACILITIES
<ul style="list-style-type: none"> · Dedicate parkland and provide improvements consistent with San Diego County Park Land Dedication Ordinance

¹ Any reference to Building Permit refers to production building permits and not building permits for model homes.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Executive Summary

Improvement
SCHOOL FACILITIES
· Reserve Elementary School site · Pay state mandated school fee or enter into mitigation agreement(s) with District(s)

The Otoy Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

Table 2: Construction and Responsibilities for Facilities and Infrastructure

	Acquisition	Construction	Maintenance	Ownership	Access
Public Roads	Developer(s)	Developer(s)	County	County	Public
Private Roads	Developer(s)	Developer(s)	HOA	HOA	HOA
Resort Private Driveway	Developer(s)	Developer(s)	Private	Private	Private
Off Site Road Improvements	Developer(s) and Fair Share Contribution	Developer(s) and Fair Share Contribution	County/City of Chula Vista	County/City of Chula Vista	Public
On Site Trails / Pathways	Developer(s)	Developer(s)	HOA or County/District	HOA or County/District	Public
Landscaped Parkways	Developer(s)	Developer(s)	HOA or County/District	HOA or County/District	Public
Public Road Lighting	Developer(s)	Developer(s)	County	County	N/A
Specialty Village	Developer(s)	Developer(s)	HOA	HOA	N/A
MU Parking Lot	Developer(s)	Developer(s)	HOA	HOA	Public
Otoy Ranch Preserve	Preserve Dedication	NA	POM Assessment	POM	Public
Internal Open Space (HOA)	Developer(s)	Developer(s)	HOA	HOA	Public
Internal Open Space (Public)	Developer(s)	Developer(s)	County/District	County/District	Public
Public Parks	Developer(s)	Developer(s)	County/District/HOA	County	Public
Private Parks	Developer(s)	Developer(s)	HOA	HOA	HOA
Water System	Developer(s)	Developer(s)	OWD	OWD	NA
Sewer System	Developer(s)	Developer(s)	County/District	County/District	NA
Drainage System	Developer(s)	Developer(s)	County/District	County	NA
Fire Station	Developer(s)/District	Developer(s)/District	Fire District	Fire District	NA
Schools	Developer(s)/District	Developer(s)/District	School District	School District	Public
Definitions					
Developer and Fair Share Contribution		Obligation will be satisfied through a combination of developer(s) performance and payment of impact fees.			
Preserve Dedication		Obligation will be satisfied through compliance with the RMP 2 dedication requirements.			

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

POM Assessment	Obligation will be satisfied through compliance with the RMP 2 requirement to establish an assessment mechanism.
Developer/ District	Acquisition and Construction may be performed by the Developer(s) but funded through an assessment mechanism.
County/District	Performance or title may be held by the County but funded through an assessment mechanism.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

1.0 Introduction

1.1 Overview

The purpose of this PFFP is to address the demand and adequacy of planned public facilities associated with the anticipated development of the Project. This PFFP has been prepared in compliance with the requirements of the Otay SRP. Part II of the Otay SRP identifies thirteen (13) areas of public facility analysis required for implementation of the Project. The list of facilities and services evaluated in this PFFP are as follows.²

- Drainage Facilities
- Sewerage Facilities
- Transportation System Facilities
- Urban Runoff Facilities
- Water Facilities
- Water Reclamation Facilities
- Civic Facilities
- Fire Protection / Emergency Facilities
- Law Enforcement Facilities
- Library Facilities
- Parks and Recreation Facilities
- School Facilities
- Animal Control Facilities

In addition to analyzing these thirteen facilities, the Otay SRP requires a PFFP to include Regional Facility Report for the following regional facilities.

- Arts and Cultural Facilities
- Cemetery Facilities
- Health and Medical Facilities
- Social and Senior Services Facilities
- Correctional Facilities
- Justice Facilities

Other facilities required to be addressed at the Specific Plan level are Solid Waste and Childcare facilities. This PFFP includes analysis of these facilities in Chapter 15.

1.2 Otay SRP Thresholds

The Otay SRP identifies public facilities and services with related thresholds and implementation measures. These public facilities and services are described in the Otay SRP and the Otay Ranch Facility Implementation Plan. The thresholds contained in Part II, Chapter Five of the Otay SRP, are used to evaluate if the demand generated by new development complies with the adopted threshold.

² Listed in SRP Part II, p. 351.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

This PFFP identifies new or upgraded facilities or services needed to comply with the threshold.

1.3 Facility Analysis

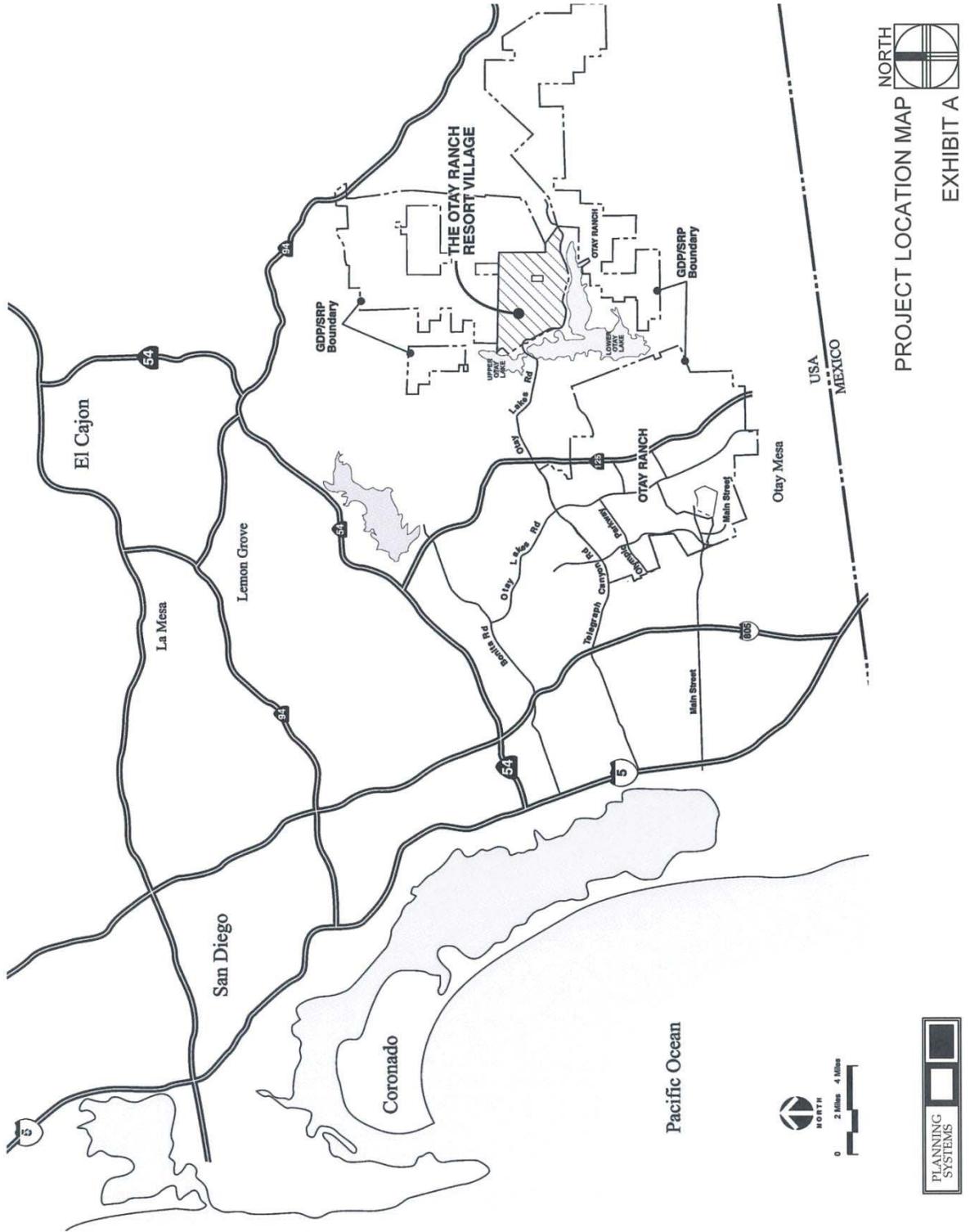
This PFFP analyzes facility adequacy for each of the applicable facilities and services. Each analysis is based upon the Project processing requirements for that facility. These establish the requirements for evaluating Project consistency with the threshold ordinance at various stages of entitlement action (General Plan, Specific Plan/Public Facilities Finance Plan, Tentative Map, Final Map and Building Permit) in the development review process.

A service analysis section is also included in this PFFP which identifies and provides background information on the service provided by each specific facility. An existing conditions inventory is then integrated into the analysis of each facility. The demand created by the Project is then assessed for each facility. This PFFP is based upon the assumptions of a ten-phased, non-sequential development scenario of the Project. Based upon this development projection, an adequacy analysis of proposed facility improvements is conducted.

The adequacy analysis provides a determination of whether or not compliance with the threshold will occur and be maintained, and the finance section provides a determination of whether funds are available to assure the improvement. The analysis includes remedial actions which will be necessary to bring the facility into conformance with the threshold.

In addition, this PFFP addresses Regional Facility Plans to ensure compliance as required by the Otay SRP.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions



NORTH
 PROJECT LOCATION MAP
 EXHIBIT A

Exhibit A – Project Location Map

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

2.0 Land Use Assumptions

2.1 Purpose

The purpose of this section is to quantify the manner in which the Project will be developed, and to analyze the proposed development pattern in relationship to existing urban development and infrastructure in the area, as well as all other projects at some stage of the development process in the County of San Diego and the City of Chula Vista. Public facility demand associated with the Project is added to this existing demand in order to assess facility adequacy through buildout of the proposed Otay Ranch Resort Village project.

2.2 Existing Development

This PFFP considers all existing and approved development up to October 2014 as the base condition. This information is based upon input from the County of San Diego Department of Planning and Development Services and the City of Chula Vista Planning Department.

The present population of the Otay Community Planning Area subarea of the County of San Diego (2008) is 4,690 persons. The General Plan buildout capacity for this area is 14,240 persons. With regard to the unincorporated area of Otay Ranch, it should be noted that no development has been developed or approved at the time of preparation of this PFFP.

2.3 Otay Ranch Resort Village Development Summary

A summary of the anticipated land uses for the proposed Project is shown in Table 2. The total number of homes planned is 1,938 (1,881 single family homes and 57 multi-family homes). Also included within the Resort Village are approximately 17.4 acres of resort complex uses, a 2.1 acre public safety site, 10.0 acres for an elementary school site, 28.6 acres of parks and recreational uses, roughly 1,232 acres of open space and Preserve, and approximately 39.1 acres of circulation facilities.

The Project is divided into Planning Areas. These areas are identified on the following land use summary and phasing tables, and are depicted in Exhibit B, Site Utilization Plan.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

Table 3: Proposed Project Land Use Summary

Land Use	Acres	Units	Density
Single Family Residential			
R-1	248.7	796	3.2
R-2	55.9	211	3.7
R-3	90.2	401	4.4
R-4	74.5	263	3.5
R-5	55.8	210	3.8
Single Family Total¹	525.1	1,881	3.6
Multiple Use			
MU ²	14.1	57	4.0
Multiple Use Total	14.1	57	4.0
Residential Total			
	539.2	1,938	3.6
Parks			
P-1	2.9		
P-2	1.7		
P-3	2.3		
P-4	2.2		
P-5	10.3		
P-6	2.4		
P-7	2.9		
P-8	1.3		
P-9	2.6		
Parks Total	28.6		
Resort			
Resort ³	17.4		
Resort Total	17.4		
Public Uses			
Public Safety (PS)	2.1		
School	10.0		
Public Uses Total	12.1		
Open Space & Preserve			
Open Space ⁴	143.6		
Preserve	1,089.0		
Open Space & Preserve Total	1,232.6		
Circulation			
Circulation	39.1		
Circulation Total	39.1		
TOTAL	1,869.0	1,938	

¹ Single Family Residential includes residential streets and internal slopes.

² Multiple Use includes up to 20,000 square feet of commercial use.

³ Resort includes up to 200 rooms and up to 20,000 sq. ft. of ancillary uses.

⁴ Open Space includes manufactured slopes outside of neighborhoods and associated residential manufactured slopes.

The Otay Ranch Resort Village

Public Facilities Finance Plan

Land Use Assumptions

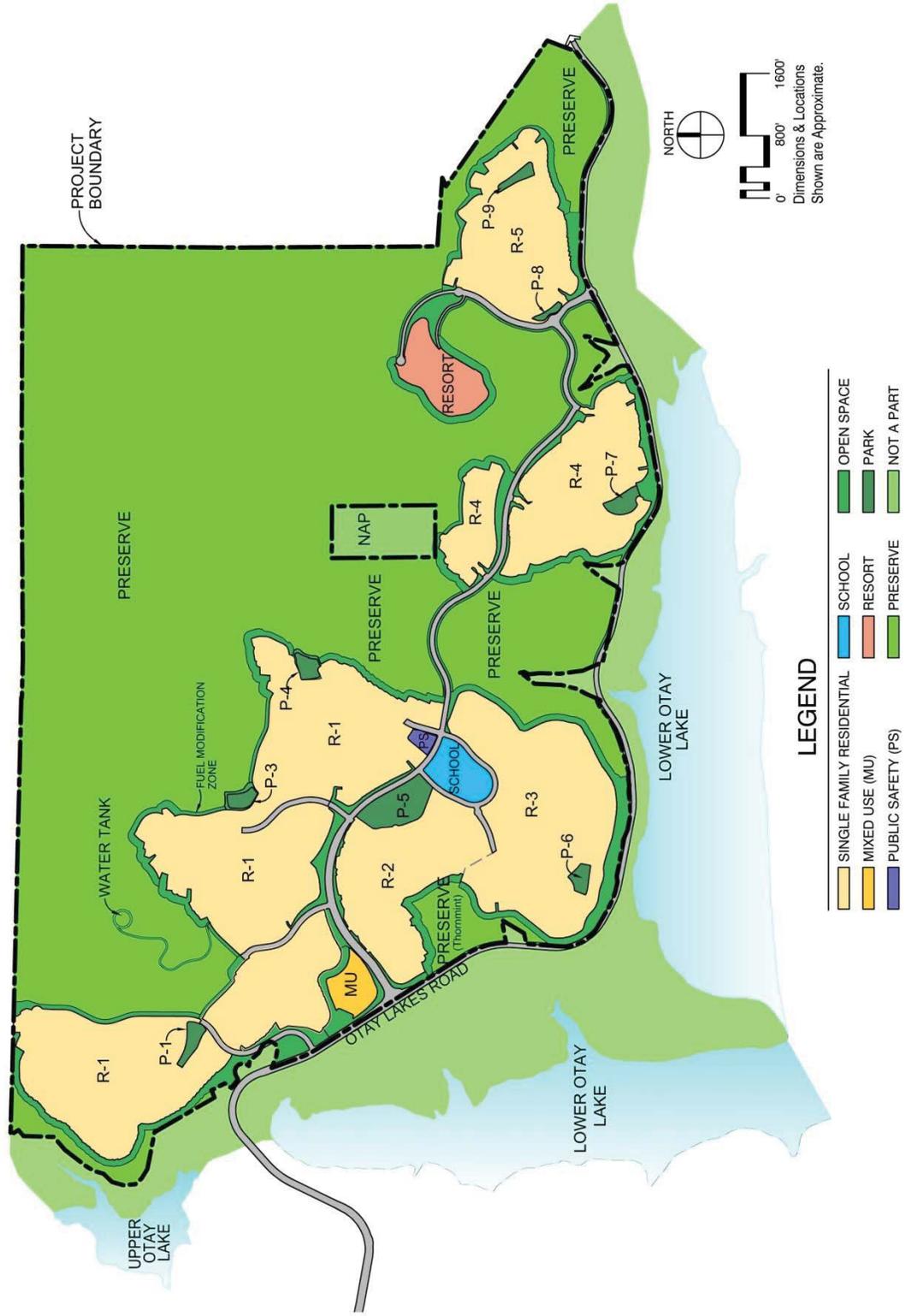


Exhibit B - Site Utilization Plan

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

2.4 Conceptual Project Phasing

For purposes of this PFFP analysis, development of the Project is assumed to occur in non-sequential geographic phases. The projected phasing forecast is not to be considered absolute. The actual number of homes and other uses to be constructed in the Project will vary depending upon economic and other external conditions. Such changes will not necessitate an amendment to this plan as long as actual development complies with the Otay SRP, the Resort Village Specific Plan and the applicable public facilities thresholds.

A Phasing Forecast Summary for the Project is provided in Table 3 and a Conceptual Phasing Plan is shown on Exhibit C. This plan recognizes that any sequential phasing forecast is subject to variations due to market changes or regulatory complications. Therefore, this PFFP allows for non-sequential phasing by identifying facilities requirements in relation to phasing based on the geographical location of the phased development. Thus, the Project is assumed to be developed in ten phases over an approximate ten year build-out period. This phasing is identified more specifically as shown on Table 3. The Orange, Copper, Blue, Gold and Green phases are within the Area A TM (5361A) and the Purple, Red, Tan, Yellow and Silver phases are part of the Area B TM (5361B). No phases overlap the other TM, except for certain shared facilities which are obligations of the overall project.

Table 4: Resort Village Phasing Forecast Summary

Phase	TM	Homes	Hotel	Retail (SF)	Parks (Acres)	Civic
Orange	5361A	215				
Copper	5361A	180			4.6	
Blue	5361A	211				
Gold	5361A	196			2.3	
Green	5361A	205			2.2	2.1
Purple	5361B	57		20,000		
Red	5361B	401			12.7	10.0
Silver	5361B	263			2.9	
Tan	5361B	210			3.9	
Yellow	5361B	0	200	20,000		
TOTAL		1,938	200	40,000	28.6	12.2

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

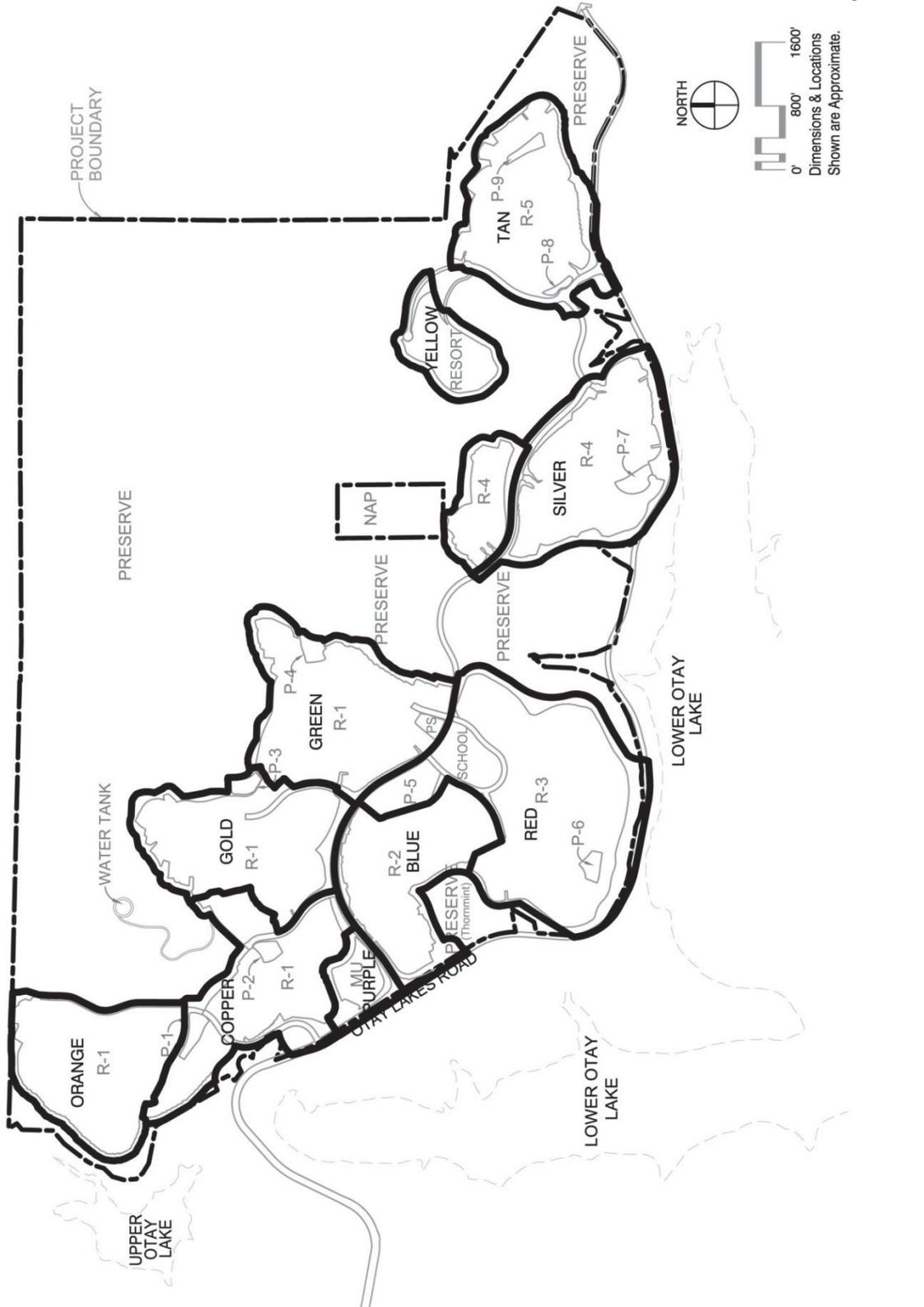


Exhibit C - Phasing Plan

The Otay Ranch Resort Village
Public Facilities Finance Plan
Land Use Assumptions

2.5 Population-based Analysis

Several of the public facilities thresholds are based on providing a quantity of facilities per sum of population. As a result, it is necessary to determine a population projection for each assumed phase. For the 91914 zip code, SANDAG estimates the average persons per home to be 3.59.

Table 5: Proposed Project Population Projection

Phase	Homes	Projected Population
Orange	215	772
Copper	180	646
Blue	211	757
Gold	196	704
Green	205	736
Purple	57	205
Red	401	1440
Tan	210	754
Yellow	263	944
Silver	0	0
TOTAL	1,938	6,957

3.0 Drainage Facilities

3.1 Otay SRP Threshold

Storm water flows and volumes shall not exceed Engineering Standards of the governing land use jurisdiction (County of San Diego).

3.2 Service Analysis

The San Diego County Flood Control District is responsible for ensuring safe and efficient storm water drainage control systems are provided concurrent with development in the unincorporated portions of the County of San Diego. The County Board of Supervisors acts as the Board of Directors for the district. District staff reviews individual projects to ensure that improvements are provided consistent with the drainage master plan(s) and that development projects comply with all County engineering drainage standards.

The Otay Ranch Resort Village Drainage Study, prepared by Hunsaker & Associates, Inc., dated September 2014, assesses the existing (Pre-Development) and developed (Post-Development) drainage conditions of the Project site. The purpose of this Master Drainage Study is to quantify both existing and developed hydrologic condition peak flows from the Project site to Lower Otay Lake, located immediately south of the Project site. Additionally, the report addresses the adequacy of the receiving conveyance systems to which the Project drains. The total drainage study area encompasses 2,462 acres.

Public infrastructure-type drainage trunk facilities and services are also addressed in the Otay Ranch Facility Implementation Plan dated October 28, 1993.

3.3 Project Processing Requirements

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

3.4 Existing Conditions

The Otay Ranch Resort Village Project site is currently in an undeveloped state. The topography is characterized by rolling moderate and steep hills sloping from north down to the south. Elevations on the project watershed range from a high of approximately 1,500 ft. AMSL near the northeast corner of the property, to the approximate 500 ft. AMSL surface of Lower Otay Lake. The highest elevation of proposed development is approximately 900 ft. AMSL. The vegetation consists mainly of low-profile coastal sage scrub, native grasslands and brush. All runoff from the Project will discharge to Lower Otay Reservoir.

Runoff from the site drains via one of twenty three (23) existing culverts under Otay Lakes Road, which extends the length of the northern shore of Lower Otay Reservoir and defines the lowest elevations of the site. Development of the site will not cause any diversion to or from the Lower Otay Reservoir watershed. Water from Otay Reservoir (and, thus, from the entire catchment of the reservoir) rarely discharges to the Otay River downstream of Savage Dam. Water from Otay Reservoir is conveyed in a pipeline to the Otay Water Treatment Plant, treated to drinking water standards, and distributed as potable water to homes and businesses in the City of San Diego and neighboring communities. The only time any water is released from Otay Reservoir to the Otay River downstream is when the reservoir fills up and overflows, which has happened only seven times since 1917.

The onsite drainage watersheds and a summary of the existing condition drainage flows are as identified in the following table, and shown graphically in the *Otay Ranch Resort Village Drainage Study*. As shown on the table below, the existing culverts under Otay Lakes Road are undersized in the existing condition and will require upgrades to prevent roadway overtopping during the design flow event. 70% of the analyzed existing culverts under Otay Lakes Road (16 of 23) are undersized in the existing condition and require upgrades to prevent roadway overtopping during the design flow event. Only seven culverts have enough capacity to avoid overtopping in Pre-Development conditions during a 100-year storm event.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

Table 6: Project Onsite Watersheds (Existing Condition)

Culvert No.	100-Year Existing Peak Flow (cfs)	Existing Culvert Capacity "C" (cfs)	Roadway Overtopping Potential in 100-Year Storm
1A	43.9	28.9	Yes, minor
1B	11.1	28.9	No
2	53.7	45.9	Yes, minor
4	172.0	37.14	Yes, significant
5	48.41	41.07	Yes, minor
6	194.94	42.52	Yes, significant
7	568.6	135.0	Yes, significant
8	34.36	3.5	Yes, significant
9	121.89	49.0	Yes, significant
10	18.77	19.7	No
11	10.90	13.0	No
12	22.08	13.8	Yes, minor
13	14.86	17.0	No
14	20.36	19.7	Yes, minor
15	296.48	25.7	Yes, significant
16	97.77	35.2	Yes, significant
16A	14.18	15.4	No
17	30.63	44.57	No
17A	10.96	10.2	Yes, minor
18	896.5	443.4	Yes, significant
18A	16.48	12.6	Yes, minor
19	85.38	42.0	Yes, significant
20	86.94	540.4	No

3.5 Project Demand and Proposed Facilities

3.5.1 Post Development Watersheds

Development of the Project site will include the construction of single-family residential homes, multi-family homes, a resort hotel complex, parks, an elementary school site, a public safety site, and the accompanying roads and infrastructure improvements.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

Roughly 754 acres of the 1,889-acre³ property will be developed.⁴ The balance (approximately 1,135 acres) will remain open space, including both natural Preserve open space and non-preserve open space (i.e. – fuel management).

Natural runoff from most areas north of the Project site will be separated from the developed site runoff via separate storm drain systems. Thus, runoff from natural (undeveloped) areas would continue to drain directly to the Lower Otay Lake, and not mix with runoff from the development until downstream of the proposed water quality basins (after low flows from the development areas have been treated). However, due to storm drain optimization, and to avoid a double storm drain system in many streets of the proposed development, some runoff from natural areas will mix with runoff from developed areas. Exhibit D depicts the Project Watersheds and Drainage Control Facilities.

All runoff from the developed Otay Ranch Resort Village Site will drain to the Lower Otay Lake. The runoff from the 85th percentile storm as defined by the SDCHM and drier weather runoff from developed areas of the Otay Ranch Resort Village Site will be diverted to the seven (7) Water Quality Basins and eight (8) vegetated swales. Development of the site will not cause any diversion to or from the Lower Otay Reservoir watershed.

Runoff in excess of the runoff volume produced by the 85th percentile storm will discharge to the Otay Lakes Road culverts and into Lower Otay Lake. The performance of the Water Quality Basins is described in depth in the Major Storm Water Management Plan for Otay Ranch Resort Village by Hunsaker & Associates dated September 2014. Since the capacity of Lower Otay Lake is sufficient to convey the proposed peak flow increases, and since the culverts will be upsized as necessary to convey the projected 100-year peak flow from the developed areas under Otay Lakes Road, no runoff detention basins will be required as part of this development. Post-development watersheds are described in Table 6 and shown graphically on Exhibit E.

³ The 1,889 acres includes the 20 acre “NAP” out parcel.

⁴ Compared to Section 6.0, which includes an additional approximately 45 acres of analysis due to impacts associated with Otay Lakes Road widening for totals of approximately 795-acres of impacts and 1,917 total acres. The Otay Ranch Resort Village Drainage Study does include the required improvements to culverts off-site for Otay Lakes Road; however, since no drainages are disturbed, the study focuses only on-site.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

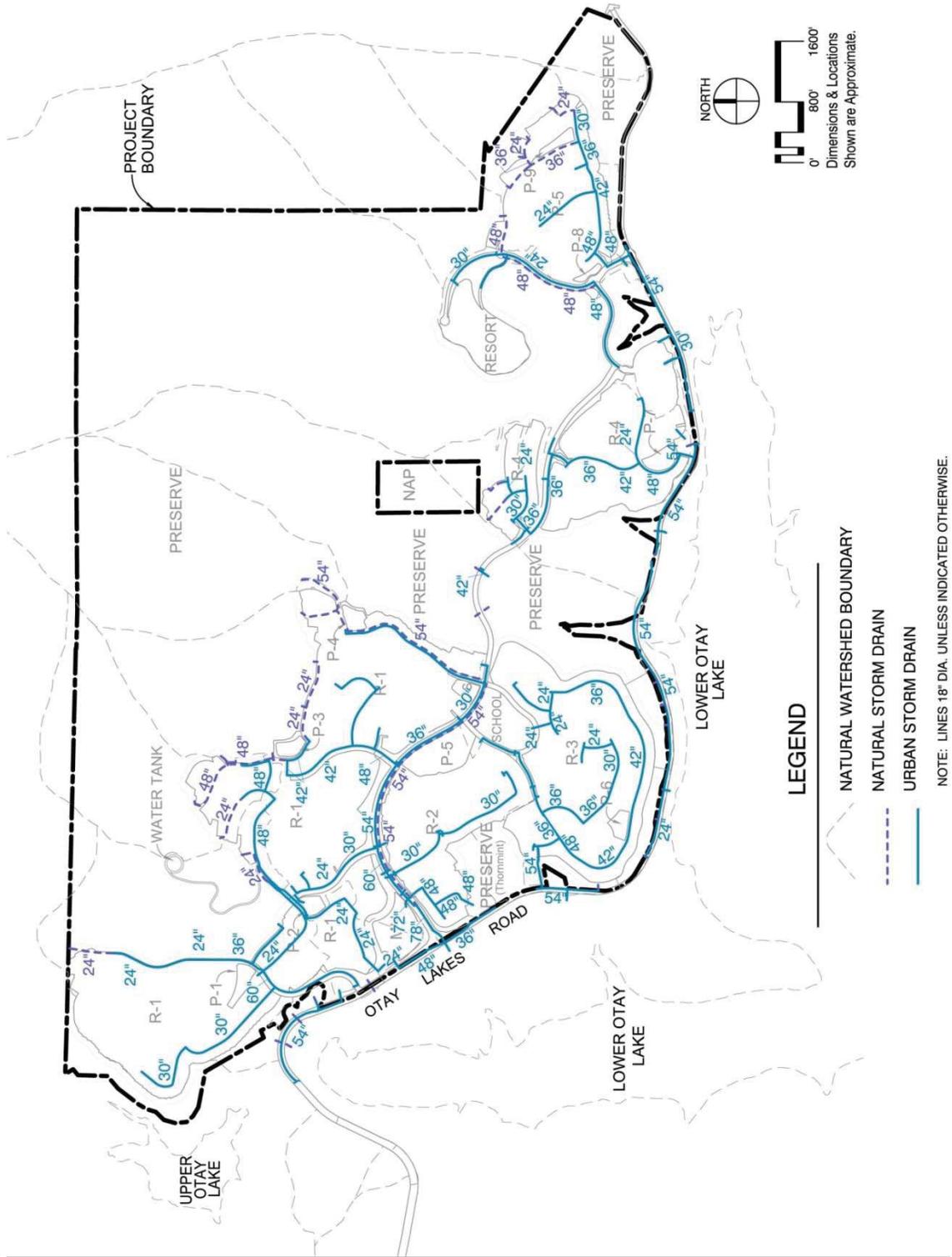


Exhibit D – Project Watersheds and Drainage Control Facilities

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

At the downstream end of the internal storm drain systems, the culvert crossings under Otay Lakes Road will be upsized to prevent roadway overtopping during the 100-year design event. The following table summarizes the 100-year developed condition peak flows to each of the discharge locations at Otay Lakes Road. All flows listed in the table were generated using the AES-2003 computer program and the Rational Method as explained in Chapter 3 of the *San Diego County Hydrology Manual* (SDCHM). Flows for culverts 7 & 18 were generated using the Natural Resources Conservation Service (NRCS) Unit Hydrograph Method as explained in Chapter 4 of the SDCHM.

Table 7: Post-Development Watershed Area

Culvert No.	Total Post-Developed Area to Culvert (acres)	100-Year Developed Peak Flow (acres)
1A	29.6	46.9
1B	6.2	14.52
2	31.8	47.97
4	15.9	48.22
6	205.0	436.26
7	653	937.9*
9	133.1	199.9
12	8.5	20.4
14	10.7	30.2
15	241.5	256.3
16	129.9	223.31
18	996.2	1,198.5*
19	4.5	11.7
20	20.56	44.82
TOTAL	2,486.46*	3,516.9

* Culverts 7 & 18 analyzed with HEC HMS software

3.5.2 Rational Method – 100 Year Storm

As mentioned, all methodology used in this analysis is consistent with standards set forth by the San Diego County Hydrology Manual SDCHM. Since the total contributing watershed area to each discharge culvert is less than one square mile in Pre-Development conditions (except for culverts 7 and 18 where the contributing area is over 1.0 square miles), the Rational Method was used to determine peak flow rates. The NRCS Unit Hydrograph Method was used to determine peak flow rates at culverts

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

7 & 18. Per County of San Diego methodology, all hydrologic results correspond to the 100-year design storm.

In accordance with County of San Diego drainage criteria for the Post-Developed condition, and following the recommendations of the County of San Diego's comments in the original Master Drainage Study, the Rational Method has also been used to determine peak design flow rates since all the contributing drainage areas are less than 1.0-square mile (except for culverts 7 and 18). The AES-2003 computer software was used to model the runoff response per the Modified Rational Method. Methodology used for this computation of design rainfall events, runoff coefficients, and rainfall intensity values are consistent with criteria set forth in the most current SDCHM. The areas draining to culverts 7 and 18 are greater than 1.0- square mile for both the existing and proposed conditions. The NRCS Unit Hydrograph was developed using the HEC-HMS software program. All input for this program is consistent with Chapter 4 of the SDCHM. A more detailed explanation of methodology and model development used for this analysis is listed in the Otay Ranch Resort Village Drainage Study.

Details addressing the treatment of storm water runoff are discussed in the Major Storm Water Management Plan for Otay Ranch Resort Village.

As mentioned, the 100-Year peak flow event analysis concludes that multiple culverts under Otay Lakes Road, which transport the developed area drainage from the water quality basins to the lake, will require upgrading due to the increased peak flow from the developed condition.

3.5.3 Adequacy of Culverts under Otay Lakes Road

In accordance with County storm water control policy, the sizing of these proposed water quality basins was analyzed to determine an adequate basin size, as the calculated first flush runoff volume must be contained within each of the extended detention basins. In addition, the capacity of the existing culverts under Otay Lakes Road was analyzed to determine whether the existing culvert structures will be of sufficient size to convey the post-development condition peak flow rates without roadway overtopping. The following table details the major culvert upgrades required to accommodate the 100-year flow under Otay Lakes Road. Minor culvert upgrades may also be required at the lesser culverts within the project site to ensure safe and efficient conveyance of the 100-year storm. These upgrade sizes may be reduced at the final engineering stage if it is concluded through a detailed hydrologic analysis that a reduced size will provide the necessary protections.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

Table 8: Post Development 100-Year Peak Flows

<i>Culvert #</i>	<i>100- Year Existing Peak Flow (cfs) and discharged velocity (ft/s)*</i>	<i>100- Year Developed Peak Flow (cfs) & Discharge Velocities (ft/s) **, ***, ****</i>	<i>Existing Culvert size</i>	<i>Proposed Culvert Size</i>
1A	43.9 / 11.6	46.9 / 10.4 / 11.5 / 10.0	24" CMP pipe	30" RCP pipe
1B	11.1 / 9.3	14.5 / 7.6 / 7.6 / 6.3	24" CMP pipe	24" RCP pipe
2	53.7 / 14.7	47.97 / 10.3 / 6.8 / 6.8	24" CMP pipe	36" RCP pipe
3	Not affected by Development	Not affected by Development	2 – 10' x 10' boxes	Extension of the 2 – 10' by 10' boxes
4	172.0 / 11.9	48.22 / 10.3 / 6.8 / 6.8	24" CMP pipe	36" RCP pipe
5	48.4 / 13.1	0 (diverted to 4)	24" CMP pipe	none
6	194.9 / 13.6	436.3 / 17.0 / 15.4 / 15.4	24" CMP pipe	72" RCP pipe
7	568.6 / 20.3	937.9 / 20.4 / 15.2 / 14.5	36" RCP pipe	8'x10' Box
8	34.4 / 5.2	0 (diverted to 7)	12" CMP pipe	none
9	121.9 / 15.6	199.9 / 14.1 / 13.8 / 13.3	24" RCP pipe	54" RCP pipe
10	18.8 / 8.3	0 (diverted to 12)	21" CMP pipe	none
11	10.9 / 10.5	0 (diverted to 12)	18" CMP pipe	none
12	22.1 / 15.5	20.4 / 8.1 / 8.1 / 7.5	18" CMP pipe	24" RCP pipe
13	14.9 / 13.7	0 (diverted to 14)	18" RCP pipe	none
14	20.4 / 13.6	30.2 / 9.1 / 8.9 / 7.6	18" RCP pipe	30" RCP pipe
15	296.5 / 14.5	256.3 / 4.8 / 1.2 / 1.5	18" RCP pipe	Contech 23A6
16	97.8 / 11.2	223.3 / 14.9 / 11.4 / 11.4	24" CMP pipe	60" RCP pipe
16A	14.2 / 11.6	0 (diverted to 16)	18" CMP pipe	none
17	30.6 / 9.8	0 (diverted to 16)	24" CMP pipe	none
17A	11.0 / 12.6	0 (diverted to 16)	15" PVC pipe	none
18	896.5 / 18.7	1,198.5 / 14.3 / 11.6 / 9.8	66" CMP pipe	Contech 23A6-6
18A	16.5 / 7.6	0 (diverted to 18)	18" HDPE pipe	none
19	85.4 / 13.4	11.7 / 7.4 / 7.1 / 5.8	24" CMP pipe	24" RCP pipe
20	86.9 / 10.3	44.8 / 10.1 / 9.6 / 8.1	9'x5' Box	36" RCP pipe

* Discharge velocity assumes that overtopping of Otay Lakes Road will occur at locations where existing pipes that do not have the capacity to convey 100-year existing flows.

** 1st value for discharge velocity is based on free outfall scenario, i.e. no tailwater assumed. Analysis conducted using FlowMaster software.

*** 2nd value for discharge velocity is based on tailwater elevation of 490.7 which corresponds to 100-year water surface elevation of Lower Otay Reservoir.. Analysis conducted using CulvertMaster software except culverts 2,4, 6, and 16 which used Hydroflow Express software.

**** 3rd value for discharge velocity is based on a tailwater elevation of 491.3 which corresponds to the top of the Savage Dam spill way gates (additional calculation prepared per request of the City of San Diego). Analysis conducted using HydraFlow Express software.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

Table 7 provides details of the major culvert upgrades under Otay Lakes Road. From an analysis of Table 7, nine culverts will be abandoned (culverts 5, 8, 10, 11, 13, 16A, 17, 17A, 18A), two culverts will be reduced (culverts 19, 20), one culvert will remain the same size but improved (Culvert 4), one culvert will be extended (Culvert 3, corresponding with the double 10'x10' box) and ten culverts will be greatly improved.

Regarding the peak flow comparison from Pre and Post-Development conditions, six discharge locations out of 23 will increase their peak flows, and only four of those significantly (more than 80%: culverts 6, 7, 9 & 16). Table 7 also shows the velocity of discharge in Pre and Post-Development conditions for the respective 100-year peak flows. The Post-Development culverts will avoid overtopping and the excessive erosion associated with it, and will discharge the 100-year peak flow with reduced velocity when compared to Pre-Developed conditions.

The hydrologic analysis concludes that it will be necessary to construct storm drain systems throughout the proposed development to adequately convey runoff to the locations of the proposed water quality basins and the downstream culverts. The basins are designed of an adequate size to handle the necessary volumes identified for each watershed. Installation of the seven water quality basins will ensure that the downstream drainage system will not be adversely affected by the Project.

Additional analysis specific to storm water detention is discussed in the Urban Runoff section (Section 6.0) of this PFFP.

3.5.4 Hydromodification

According to the October 2008 Final Hydromodification Management Plan, Lower Otay Reservoir is listed as a facility that is exempt from hydromodification. However, according to the City of San Diego MSCP Subarea Plan page 35, the City has reserved the right to maintain "the area of Otay Lake and Dam, including the shoreline area...from the high water level of the spillway (with gates closed) at 490.7 feet for water quality purposes". All of the proposed storm drain outlets (with the exception of four culverts) that cross Otay Lakes Road have been designed to outlet at or below this 490.7 high water elevation. These outfalls are therefore exempt from hydromodification requirements, while the watersheds draining to the four remaining culverts are subject to hydromodification.

In an effort to emphasize the anticipated erosion-reducing characteristics resulting from the Project, the following discussion is provided:

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

- The velocity of many potentially erodible reaches of intermittent creeks will be reduced as a consequence of the development.
- Of the 23 analyzed culverts, nine existing culverts will be abandoned, and no erosion that could be currently taking place will occur in post-development conditions from their current existing discharge points to the reservoir.
- Of the remaining 14 culverts, ten culverts will be constructed with outlet invert elevations at or below the lake high water level of 490.7. Erosion at these points will therefore be minimal.
- The remaining four culverts have outlet invert elevations above 490.7. The watersheds that drain to these culverts are therefore subject to hydromodification requirements to minimize erosion.
- Two additional watershed areas with no existing culverts were subject to hydromodification. Both areas proposed new culverts, which might create hydromodification impacts within the watershed.
- Rip-rap improvements will occur in all discharges as a consequence of the development, resulting in an even greater reduction in erosive potential.

3.6 Adequacy Analysis

The threshold dictates that storm water flows and volumes shall not exceed the adopted standards of the County of San Diego. The hydrologic analysis concludes that construction of the post-development storm drain systems throughout the project to the proposed water quality basins, and the downstream culverts, will result in storm drain infrastructure that is in compliance with County standards. This proposed drainage control infrastructure program also minimizes the opportunity for downstream pollution. The analysis concludes that the basins and culverts will be designed of an adequate size to handle the necessary volumes, consistent with the standards. Subject to installation of the storm drain system, the Project will consist of an adequate program of storm drain collection.

In addition, the following conditions shall be required of the developer of the Project:

1. 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 Major Storm Water Management Plan for Otay Ranch Resort Village.
2. Development of the Project site will not degrade potential beneficial uses of downstream water bodies as designated by the Regional Water Quality Control Board, including water bodies listed on the Clean Water Section 303d list.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

3. Minor alterations of the existing drainage pattern, required as part of the proposed development, will be mitigated in a manner that would prevent substantial erosion or siltation onsite or offsite. Energy dissipater systems will be designed at all proposed culvert outfalls.
4. Development of the site does not encroach on any 100-year flood hazard areas as defined by FEMA. All proposed structures will be elevated above the anticipated 100-year water surface elevation. As such no CLOMR is required.
5. Prior to recordation of the final map, 100-year flood lines will be established for any lot encumbered by drainage channel conveying a watershed area in excess of 25 acres. Any such floodplain boundary shall be clearly delineated on the non-title information sheet of the final map.
6. Onsite and offsite drainage easements shall be provided to the satisfaction of the Director of Public Works.
7. A flowage easement shall be granted to the San Diego County Flood Control District for all portions of lots subject to inundation by a 100-year flood from a drainage area in excess of one square mile.
8. Lower Otay Lake is exempt from hydromodification requirements as long as proposed outfall inverts are at or below the lake high water level of 490.7. Four proposed culverts do not meet these criteria. Therefore, the four drainage areas to these culverts and two additional watersheds that propose impacts within existing drainage channels are subject to hydromodification requirements.
9. The Drainage Study and Major Storm Water Management Plan for this project will be submitted to the City of San Diego and County of San Diego for review.

3.7 Inventory and Estimated Costs of Future Required Drainage Facilities

The following table lists the major drainage trunk facilities that will be required as a condition of the Project.

Table 9: Inventory of Major Drainage Trunk Facilities

Drainage Facility	Number	Responsibility
Storm Drains in internal streets	As required by S.D. County Engineering Standards	Developer
Water Quality Basins	7	Developer
Vegetated Swales	8	Developer
Upgrade Culverts under Otay Lakes Rd.	14	Developer

3.8 Threshold Compliance

Subject to phased developer installation of the above-referenced drainage facilities as described in this PFFP, the planned development of the Project site will not adversely impact the existing natural drainage condition of the Project site. The increased runoff resulting from the development will be mitigated through installation of the required drainage infrastructure, including seven water quality basins, and the upgrading of outflow drainage culverts under Otay Lakes Road. The Project shall be responsible for the conveyance of ultimate storm water flows in accordance with County of San Diego standards. The County Department of Public Works and the County Flood Control District shall review all plans to ensure compliance with County Engineering Standards. Satisfaction of drainage conditions of approval associated with subdivision of the site will constitute compliance with the adopted threshold.

3.9 Drainage Facilities Phasing

The following Table describes the phasing for drainage facility improvements in the Resort Village. In addition to the facilities described in the table, storm drains will be required to be installed in internal streets prior to the issuance of building permits. Phasing of the culverts under Otay Lakes Road will be implemented with improvements to Otay Lakes Road.

For the phasing of the required water quality basins, refer to Section 6.9, Table 27.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Drainage Facilities

Table 10: Drainage Facilities Improvements

Phase	Drainage Facilities Improvements
Blue	Concurrent with the improvements to Otay Lakes Road detailed in Section 5.9, the project applicants shall upgrade the culverts under Otay Lakes Road as follows: <ul style="list-style-type: none"> • Phase 1 – Culverts 1A, 1B, 2, 3, 4, and 6 • Phase 2 – Culvert 7 • Phase 3 – Culverts 9, 12, 14, 15, 16, 18, 19 and 20.
Gold	
Green	
Copper	
Orange	
Purple	
Red	
Silver	
Tan	
Yellow	

3.10 Drainage Facilities Financing

3.10.1 On-Site Facilities

County of San Diego policy requires that all development provide for the conveyance of storm waters throughout the project to comply with County engineering standards. This will be accomplished by installing drainage infrastructure, by phase, and thus ensuring that needed facility is in place prior to or concurrent with development of the area which is affecting the natural drainage.

Installation of necessary drainage facilities in general accordance with this PFFP will be a condition of approval for any future development within the Project such that conformance with the adopted threshold performance standard will be maintained. As such, the Project will be required to enter into an agreement to secure and construct those facilities identified in this section prior to the issuance of grading permits in accordance with County Ordinance.

3.10.2 Off-Site Facilities

The project site is not located within a County Special Drainage Area and therefore will not be responsible for payment of drainage fees to fund off-site facilities. Off-site improvements which are part of the construction of Otay Lakes Road will be funded by the developers. No other off-site drainage facilities are required.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

4.0 Sewerage Facilities

4.1 Otay SRP Threshold

Provide a healthful and sanitary sewerage collection and disposal system for the residents of Otay Ranch, including a system designed and constructed to use reclaimed water and ensure that sewer collections do not exceed capacity.

4.2 Service Analysis

The Project is located in the unincorporated area of the County of San Diego and is not currently within the boundaries of a sewer service district. Service is proposed to be provided by the San Diego County Sanitation District entering into a flow transfer agreement with the City of Chula Vista for service via the Salt Creek Interceptor.

The Otay Ranch Facility Implementation Plan assumed the Project would utilize the Salt Creek Interceptor and sewer lines downstream from the Project site. A more recent sewer service analysis, the Overview of Sewer Service for the Otay Ranch Resort Village, date March 2015, by Dexter Wilson Engineering, Inc. examined both the Salt Creek sewer routing and an alternative routing for downstream distribution of sewage to the Spring Valley Sanitation District (SVSD). The 2014 analysis concluded that the preferred alignment is for sewer service to be provided by the Salt Creek Interceptor.

Sewage from the Project will flow through the San Diego Metropolitan Sewerage System (Metro) and be treated at the Point Loma Wastewater Treatment Plant. The County of San Diego currently purchases capacity for wastewater treatment through the City of San Diego Metro System. The County of San Diego has treatment capacity through the Metro System for the proposed project.

4.3 Project Processing Requirements

1. Identify location of facilities for on-site and off-site improvements, including reclaimed water facilities in conformance with the Otay Ranch Resort Village Overview of Sewer Service dated March 2015 by Dexter Wilson Engineering, Inc.
2. Provide cost estimates for all facilities and proposed financing responsibilities.

3. Identify financing methods for required improvements.

4.4 Existing Conditions

4.4.1 Existing Onsite Sewer Conditions

The subject property is presently in an undeveloped state. No sewer facilities presently exist within the site.

4.4.2 Existing Offsite Sewer Conditions

The Salt Creek Interceptor, located immediately west of the Project site, has been identified as an option to provide sewer service to the Project. This Interceptor Line is owned and operated by the City of Chula Vista. This interceptor begins in Hunte Parkway, near the southern boundary of the Rolling Hills Ranch project, and follows Salt Creek and the Otay River Valley to the City of San Diego's Metropolitan Interceptor. The Salt Creek Interceptor ranges from a 15-inch to 48-inch line. The Salt Creek Interceptor has been sized to accommodate ultimate development in the service area, including the Project. The existing location of the Salt Creek Interceptor is shown in Exhibit E.

A November 1994 Salt Creek Basin study estimated that 2,253 EDU's from the Project would convey flow to the Salt Creek Interceptor. The 2,116 total EDUs proposed by the project are 137 fewer EDU than the previous projection.

4.5 Project Demand and Proposed Facilities

4.5.1 Projected Project Demand

The Project is projected to create sewage demand of 2,116 EDU's (equivalent dwelling units). The land use breakdown for this projection is shown on the following table.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

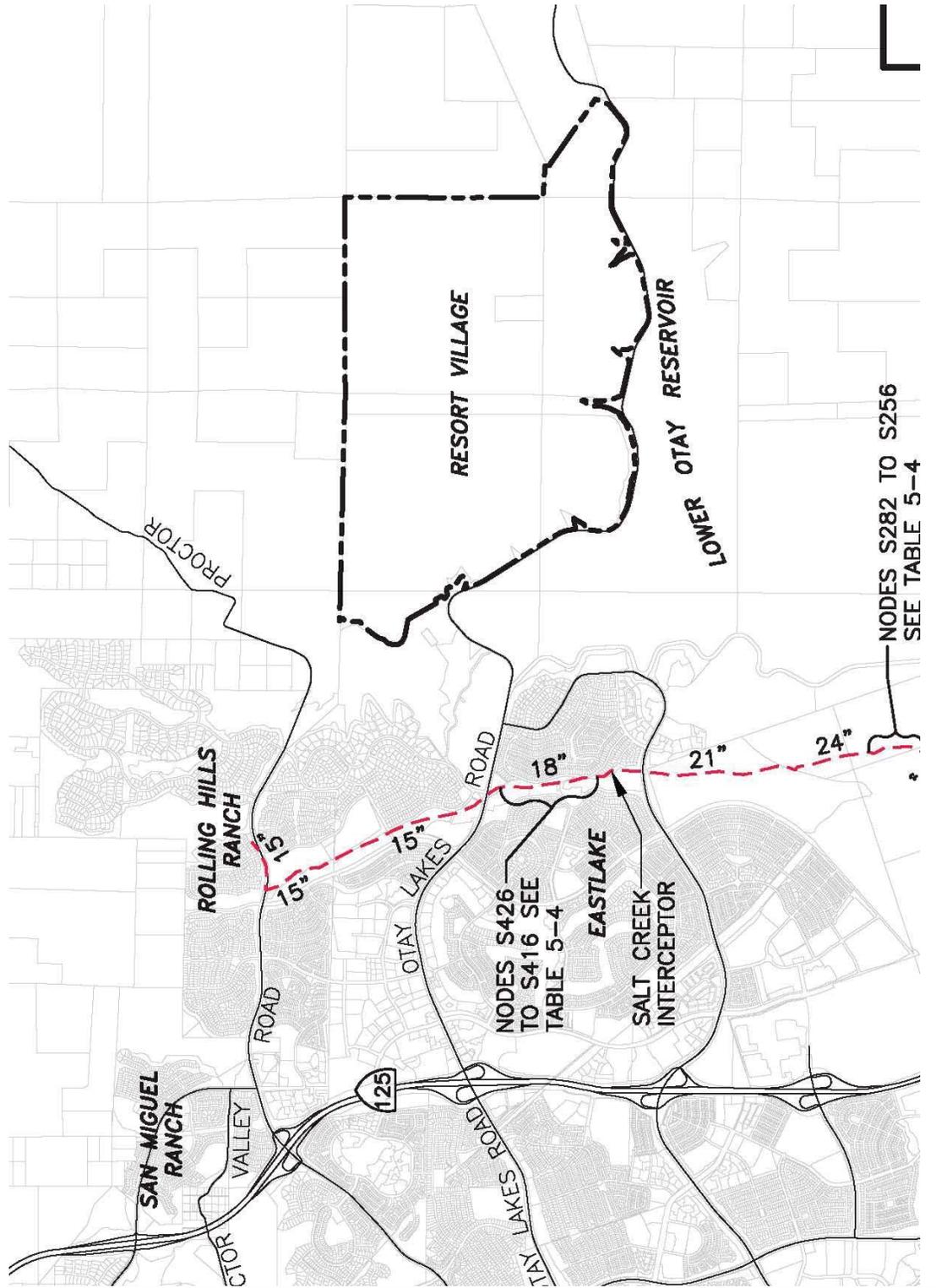


Exhibit E - Existing Off-site Sewer Facilities

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

Table 11: Project EDU Projections

Description	Quantity	EDU's	Generation Factor	Average Flow (gpd)
Single Family	1,881 units	1,881	240 gpd/unit	451,440
Multi Family Residential	57 units	57	240 gpd/unit	13,675
Mixed Use Commercial ⁵	1.5 ac.	9.4	1,500 gpd/ac.	2,250
Resort	200 units	120	144 gpd/unit	28,800
Resort Retail	1.5 ac	9.4	1,500 gpd/ac.	2,250
Public Safety Site	2.1 acres	2.1	240 gpd/ac.	500
School	800 students	16	4.8 gpd/student	3,840
Park (P-5)	10.3 acres	21.5	500 gpd/ac.	5,150
Total		2,116		507,905

4.5.2 Proposed On-site Sewerage Facilities

The Project will construct an onsite sewer system to serve development in the community. This system will include onsite gravity sewer lines and three onsite lift stations and associated force mains. The lift stations are necessary to convey sewerage to the existing offsite sewer trunk lines. The lift station sites and necessary easements will be conveyed to the County of San Diego.

The County of San Diego does not have established detailed design standards for lift stations. On recent projects, the County has used City of San Diego Guidelines for lift stations as a reference. Some of the pertinent criteria from the City of San Diego 2004 Sewer Design Guide are as follows:

- Dual force mains are required.
- Redundant pumping units are required.
- Pumping units shall be sized for peak wet weather gravity flow plus pumped flow of upstream lift stations, if any.
- Redundant power source such as diesel generator is required.
- Stations to include SCADA system to remotely notify County of station status and alarms.

⁵ Retail up to 20,000 sq. ft. including possible 100 seat restaurant and other retail uses.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

- Overflow storage equivalent to 6 hours of peak influent gravity flow is required. Two hours is standard, but the City of San Diego requires six hours where maximum protection from spillage is required.
- Odor control system, Bioxide or equal, is required.
- Station to include adequate access and turn around space for large vehicles.

The easterly lift station (Lift Station 3), will collect flows from the eastern portion of the project and pump to Lift Station 2. This station will require a capacity of approximately 300 gpm and a 6-inch force main. Lift Station 2 will collect gravity flows from the central portion of the project (and flows from Lift Station 3), and will require a capacity of approximately 825 gpm with an 8-inch force main. Lift Station 1 will collect flows from the western portion of the project and from Lift Station 2. This station would require a capacity of approximately 1,000 gpm and require a 10-inch force main. These facilities are shown on Exhibit F.

4.5.3 Proposed Offsite Sewage Facilities

The Salt Creek Interceptor would require a flow transportation agreement between the sewer maintenance district formed by the County of San Diego for the Project site and the City of Chula Vista. The Project would be required to pay sewer connection and impact fees to the City of Chula Vista at the time of building permit issuance. In order to convey flows from the Project site to the Salt Creek Interceptor, three onsite permanent sewage lift stations and force mains would be required. From Lift Station 1, sewage flows would be conveyed to the existing Salt Creek Sewer Interceptor along Otay Lakes Road. Sewer mains would be installed within the existing Right-of-Way and be a combination of 10-inch force mains and a 15-inch gravity main. Sewer flows conveyed to the Salt Creek Interceptor would require an agreement between the County of San Diego and City of Chula Vista. Exhibit G shows the anticipated location and sizes of these proposed facilities.

A Salt Creek Basin Study was prepared in November 1994 by Dexter Wilson Engineering to determine a fee funding program for future improvements to the Salt Creek Interceptor System in order to ensure that system could serve the future development of the basin area. This fee analysis estimated that 2,253 EDUs from the Project site would convey flow to the Salt Creek Interceptor line. As shown in Table 10, the Project would generate 2,116 EDU, which is 137 EDU less than that which had been previously assumed, and will not negatively impact the capacity of the Salt Creek Interceptor.

The Otay Ranch Resort Village

Public Facilities Finance Plan

Sewerage Facilities

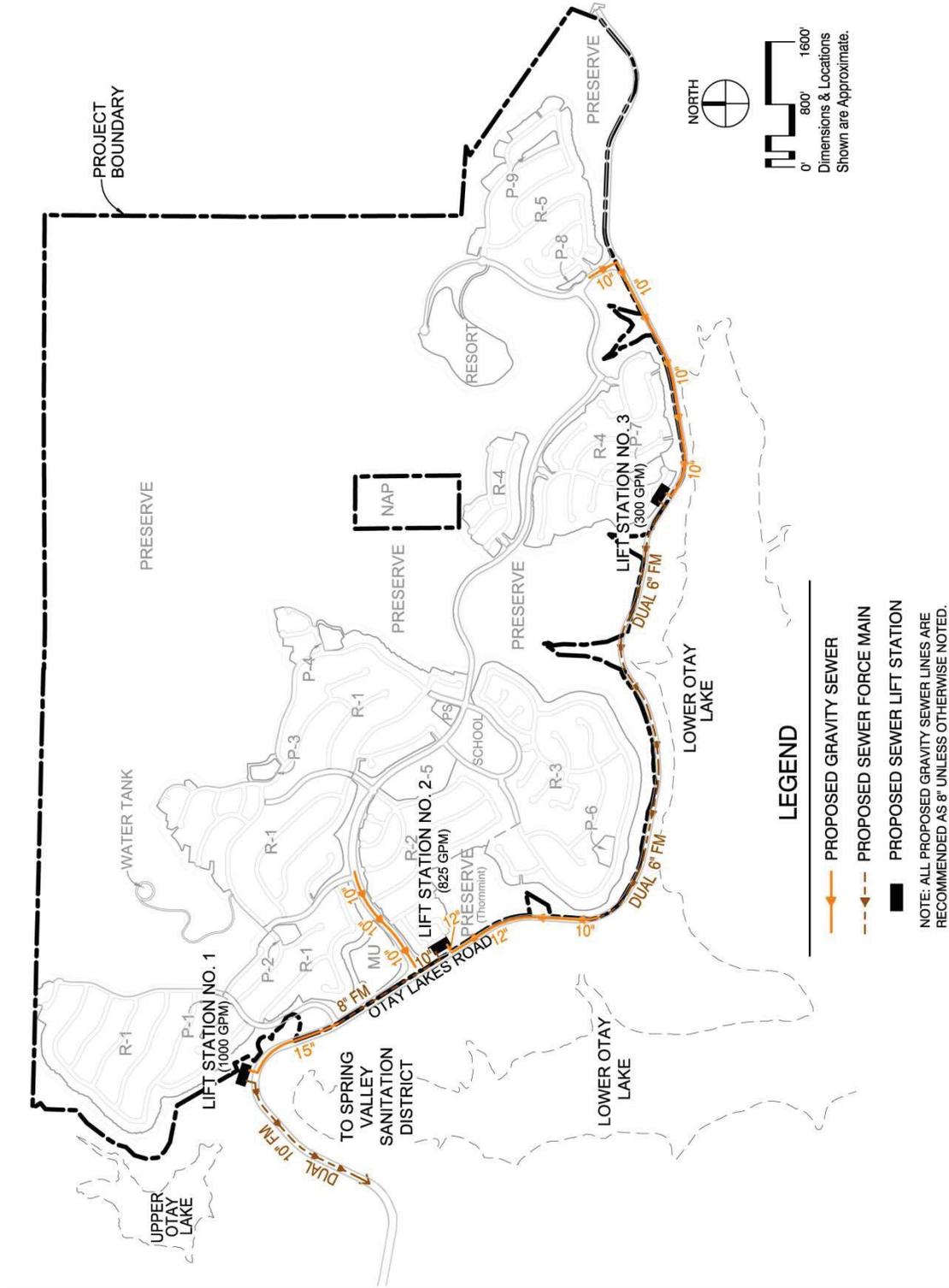
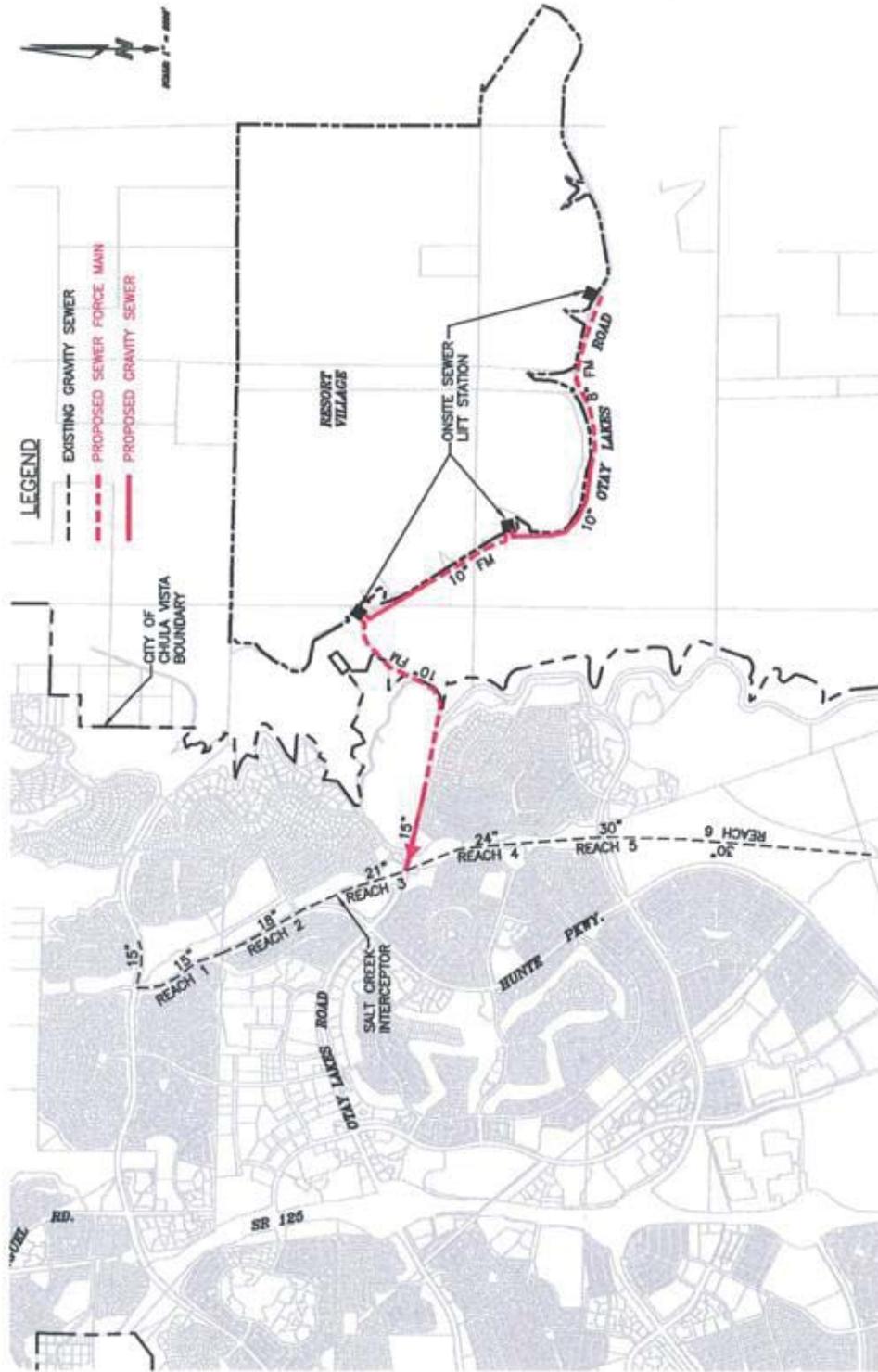


Exhibit F - Proposed On-site Sewer Facilities

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities



PROPOSED LIFT STATIONS FACILITIES
 EXHIBIT G



Exhibit G – Proposed Lift Station Facilities

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

4.5.3 *Wastewater Treatment*

Sewage from the Project will ultimately be treated at the Point Loma Wastewater Treatment Plant. The SDCSD has sufficient capacity rights in the Metro sewer system to serve the proposed project. The project will bring Metro treatment capacity from the SDCSD through a Flow Transportation Agreement. The San Diego County Sanitation District has provided the conditions listed below in Section 4.6 to secure Metro capacity.

4.5.4 *Trunk Sewers*

The design capacity is a standard for peak flows based on the sewer line's size. The design capacity flow rate is lower than actual sewer pipe capacities. Sizing facilities for design capacity as opposed to the actual flow capacity, establishes a conservative approach in the planning and design of the system.

4.6 Adequacy Analysis

Sewerage facilities necessary to accommodate projected sewer flows have been identified in conjunction with the *Otay Ranch Resort Village Overview of Sewer Service*. County of San Diego policy does not allow the design capacity of trunk sewer to be exceeded by flow volumes.

The construction of new sewer trunk lines within the Project site will be phased along with the construction of streets. As such, the facilities identified in this PFFP shall be required of the developer either as constructed facilities, or through the payment of fees, which in turn will obligate the County to construct the necessary facilities.

In addition, the following conditions shall be required of the developer of the Project.

1. Formation of a new County Sewer Maintenance District to serve the project (Streets and Highways Code, 5820 et seq), or annexation into the San Diego County Sanitation District and Sphere of Influence by LAFCO (Government Code, 56000 et seq). Hereafter, the term "District" shall mean either a future County Sewer Maintenance District, or the San Diego County Sanitation District.
2. Approval and execution of a transportation agreement between the District and the City of Chula Vista to allow connection and conveyance of project

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

flows through the City's Salt Creek Sewer Interceptor, or approval of an alternative service route such as through the Spring Valley Outfall.

3. District approval of a project sewer study that specifies the estimated project sewage generation; proposed on-site and off-site sewerage infrastructure locations, alignments, and sizes; hydraulic analysis of the proposed sewerage facilities and existing downstream City of Chula Vista sewerage system; and impacts to existing downstream sewerage facilities.
4. Satisfaction of all conditions of map approval and improvement agreements, including construction by the developer and acceptance by the District of on-site and off-site sewerage facilities, property, and easements.
5. Payment for all costs associated with easement acquisition, District formation or annexation, sewer studies, sewage transportation agreements, and agreements for securing Metro capacity (if not annexed into the San Diego County Sanitation District) to serve the project.
6. Payment for all District and City of Chula Vista sanitation fees and charges, as applicable.

4.7 Inventory of Future Required Facilities

Main sewer facilities necessary to accommodate the Project are listed on the following table.

Table 12: Inventory of Major Sewerage Facilities

Sewerage Facility	Size	Funding
SALT CREEK		
Onsite Sewer Lift Stations (3)	Various	Developer
Onsite Force Mains (3)	8" – 10"	Developer
Offsite Force Main	10"	Developer
Offsite Gravity Sewer to Salt Creek Interceptor	15"	Developer
ON-SITE SEWER LINES		
Sewer Lines in internal streets	Various	Developer

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

4.8 Threshold Compliance

Construction of the listed facilities and the payment of sewerage connection fees in accordance with the County ordinances will ensure compliance of the Project with the adopted threshold.

The construction of new sewer trunk lines must be phased with construction.

4.9 Sewerage Facilities Improvement Phasing

Table 12 describes the phasing for sewerage facilities improvements in the Resort Village. In addition to the facilities described in the table, sewer lines will be required to be installed in streets prior to the issuance of building permits

Table 13: Phasing of Sewerage Facility Improvements

Phase	Sewerage Facilities Improvements (Pump Stations)
Blue	Secure and Enter an Agreement to Construct Pump Station #2 prior to issuance of the First Final Map in each phase. Construct Pump Station #1 prior to issuance of 400th building permit project wide.
Gold	
Green	
Copper	Secure and Enter an Agreement to Construct Pump Station #1 prior to issuance of the First Final Map in each phase.
Orange	
Purple	Secure and Enter an Agreement to Construct Pump Station #2 prior to issuance of the First Final Map in each phase. Construct Pump Station #1 prior to issuance of 400th building permit project wide.
Red	
Silver	Secure and Enter an Agreement to Construct Pump Station's #2 and #3 prior to issuance of the First Final Map in each phase. Construct Pump Station #1 prior to issuance of 400th building permit project wide.
Tan	
Yellow	

4.10 Financing Sewerage Facilities

Onsite improvements will be funded by the developers of the Project in accordance with the procedures and conditions applicable to the approved specific plan, tentative subdivision maps, final maps, and/or plot plans. The developers will enter into an agreement with the County to secure and construct these necessary improvements.

Agencies providing sewer services have a limited variety of funding sources to expand and/or upgrade their facilities to meet the increasing needs being placed on them.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

Among the funding options are sewer capacity charges, development fees, bonds, annexation fees, developer infrastructure financing including Community Financing Districts and other similar assessment mechanisms, and grants. Other sources of revenues for sewer facilities include establishment of a benefit assessment fee, redevelopment funds, special taxes, private donations and lease revenues.

4.10.1 San Diego Consolidated Sanitation District

Projected annexation sewer fees for the San Diego Consolidated Sanitation District are shown in Table 13.

Table 14: SDCSD Annexation Fee

Jurisdiction	Fee Amount	Ac's	Estimated Fees
San Diego Consolidated Sanitation District	\$1,000/Ac	900 Ac.	\$900,000
TOTAL	-		\$900,000

4.10.2 Salt Creek Interceptor

The required impact fees that would be paid by the Project are shown in the following table. Salt Creek Basin Impact Fees involve fees to be paid by all future developments within the Salt Creek Drainage Basin, in order to fund improvements required to serve ultimate development within the basin. City of Chula Vista Ordinance No. 2617 established the fees to be paid for development within the basin.

Table 15: Salt Creek Basin Impact Fees

Land Use	Fee Amount	Units/ Ac.	Estimated Total Fee
Single Family Residential	\$1,330/unit	1,881 units	\$2,501,730.00
Multi-Family Residential	\$997.50/unit	57 units	\$56,857.50
Resort	\$997.50/unit	200 units	\$199,500.00
Commercial (Multiple Use)	\$12,541.90/ac	1.5 acres	\$18,812.85
Commercial (Resort)	\$12,541.90/ac	1.5 acres	\$18,812.85
Public Safety Site	\$12,541.90/ac	2.1 acres	\$26,338.00
Schools	\$79.80/student	794 student	\$63,361.20
Park	\$2,513.70/acre	10.3 acres	\$25,891.11
Salt Creek Basin Total			\$2,911,303.51

The Otay Ranch Resort Village
Public Facilities Finance Plan
Sewerage Facilities

In addition, projects flowing through the City of Chula Vista are required to pay a Wastewater Capacity Fee. This fee includes the costs for treatment capacity and Pipeline Expansion. Because the Resort Village is receiving treatment capacity through the SDCSD, the project is only subject to the Pipeline Expansion portion of the Wastewater Capacity Fee. This fee is shown in Table 15.

Table 16: City of Chula Vista Wastewater Capacity Fees

Fee Amount (Pipeline Expansion)	EDU	Estimated Fee
\$174.80/EDU	2,116	\$369,876.80

5.0 Transportation Systems Facilities

5.1 Otay SRP Threshold

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

5.2 Service Analysis

5.2.1 Levels of Service Standards

The County of San Diego, through the Department of Public Works, is responsible for ensuring that traffic improvements are provided to maintain a safe and efficient street system within the County. Through project review, County staff ensures the timely provision of adequate local circulation system improvements in response to planned development while maintaining acceptable levels of service. Planned new roadway segments and signalized intersections will maintain acceptable standards at the build-out of the San Diego County General Plan Mobility Element. General coordination on traffic assignments, improvements and volumes with adjacent jurisdictions is necessary in order to properly assess compliance with the threshold.

The traffic threshold will be analyzed by the following:

1. Level of Service (LOS) measures shall be for the average weekday peak hour, excluding seasonal and special circumstance variations.
2. The measurement of LOS shall be by the 2000 Highway Capacity Manual (HCM) method of calculation, using the County's published Circulation Element design standards.
3. Intersection of arterials with freeway ramps shall be excluded from this policy.
4. Circulation improvements shall be implemented prior to the anticipated deterioration of LOS below established standards.

5.2.2 Background Traffic Studies

The San Diego County General Plan Mobility Element serves as the overall facility master plan. County transportation planning has been, and continues to be, coordinated with the City of Chula Vista and other cities in the region to ensure regional-serving

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

roadways common to multiple agencies are planned to meet the anticipated demand in all areas, and that widths and alignments are compatible.

The *Otay Ranch Resort Village Traffic Impact Analysis* (March 2015), prepared by Chen Ryan Associates, addresses both existing and planned circulation system conditions. The study details necessary improvements and outlines the incremental circulation improvements based upon planned project phasing. The study also includes an evaluation of impacts that are considered significant as a result of the Project development.

5.2.3 *Freeway Segments*

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

5.2.4 *Arterial Roadway Segments*

The County of San Diego and the City of Chula Vista recommend that arterial segments located in largely undeveloped areas maintain LOS C or better.

5.2.5 *Peak Hour Intersections*

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

5.3 Project Processing Requirements

1. Identify phased traffic demand and demonstrate compliance with the *San Diego County General Plan Mobility Element*.
2. Identify on-site and off-site impacts and improvements by phase of development.
3. Provide cost estimates for all improvements.

5.4 Existing Conditions

The Project is situated in the County of San Diego, along Otay Lakes Road, north of Lower Otay Lake and east of SR-125. Existing Otay Lakes Road forms the southern boundary of the Project site (parallel and adjacent to the north shore of the reservoir) traveling in an east-west direction. This roadway is presently in a substandard design condition; however, a portion of this roadway will be upgraded in conjunction with development of the Project site.

To the west of the Project site, Otay Lakes Road provides access to the City of Chula Vista and SR-125. To the east, Otay Lakes Road connects to SR-94 which provides access to the unincorporated communities of Dulzura, Campo and points east. Much of the build-out roadway network in the vicinity of the Project site has yet to be constructed to its planned configuration.

The San Diego County General Plan Mobility Element classifies Otay Lakes Road (or a future parallel street of sufficient design to handle projected build-out traffic levels) as an ultimate 4-Lane Major Road between the City/County boundary and the second project access point (Strada Piazza). East of this point to SR-94, Otay Lakes Road is classified as a 2-Lane Community Collector. These classifications include bike lanes on both sides of the roadway along its full extent.

Exhibit H demonstrates the San Diego county General Plan Mobility Element for the Otay Network, which is the region including the Project site.

**The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities**

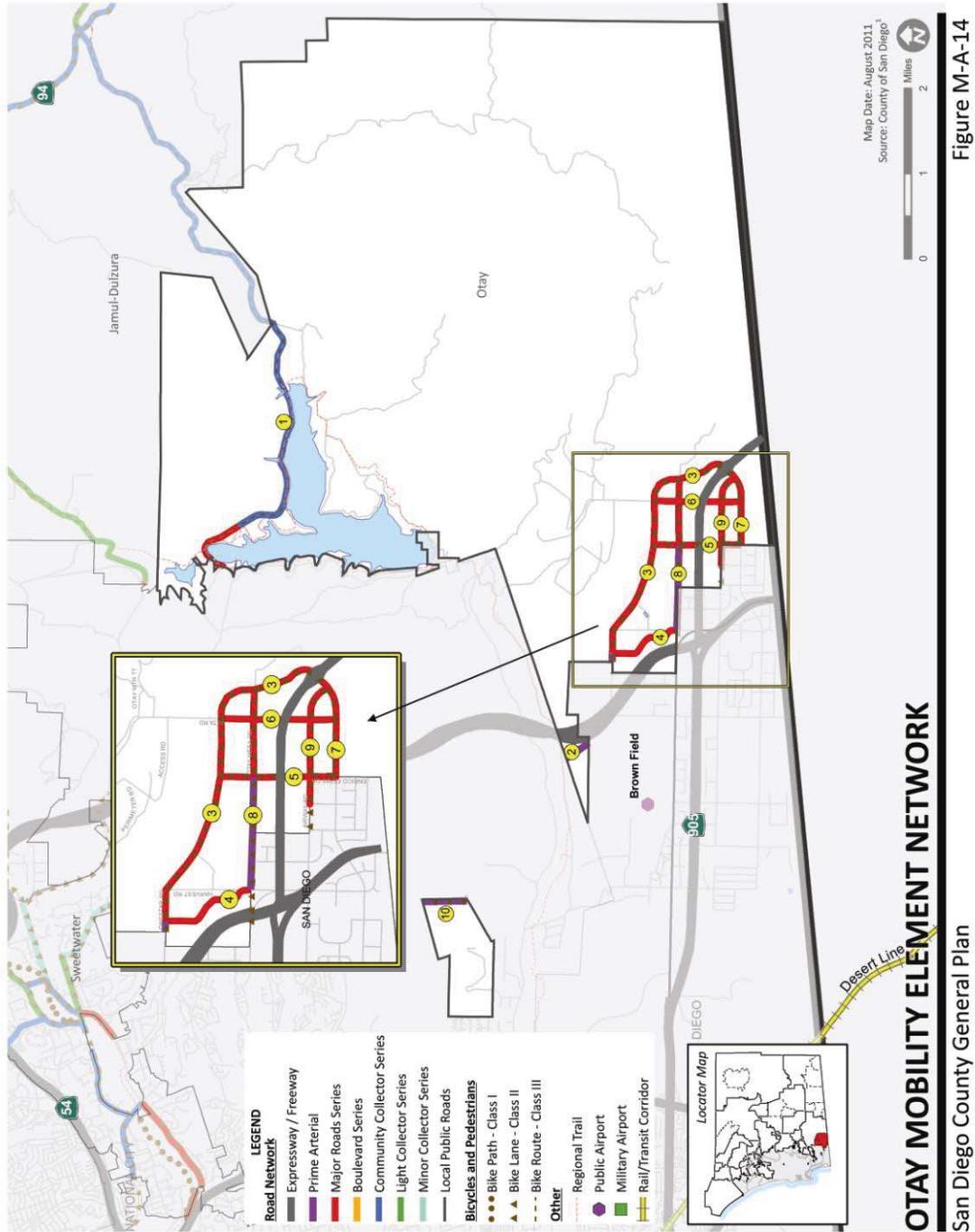


Exhibit H – Otay Mobility Element Network

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

5.5 Project Demand and Proposed Facilities

5.5.1 Trip Generation and Assignment

The Project includes residential development, resort hotel uses, an elementary school site, parks, and residential support uses. Three access points along Otay Lakes Road would provide vehicle access to and from the residential areas. The second project access point (Strada Piazza) provides access to the Mixed Use Planning Area. The Resort Planning Area would primarily be served by the third project access point (Strada Ravenna) in the eastern portion of the Community. The planned project roadway network will provide for internal circulation between the residential and resort area.

Table 16 demonstrates the estimated daily weekday vehicle trips projected from the land uses proposed on the site.

Table 17: Project Model Land Use Assumptions & Trip Generation

Land Use	Units/ Ac's	Note	Weekday Vehicle Trips
Single Family	1,881 DU	10 ADT/DU	18,810
Multi-Family	57 DU	8 ADT/DU	456
Resort Hotel	200 Rooms	8 ADT/Room	1,600
Commercial	40,000 SF	120 ADT/1,000 SF	4,800
Elementary School	10.0 Acres	90 ADT/Ac.	900
Active Park	28.6 Acres	5 ADT/Ac.	143
Public Safety	2.1 Acres	229 ADT/Ac.	481
Total Trips Generated for the Project			27,190

As demonstrated in the table above, it is anticipated that the Project will result in a total building vehicular trip generation of 27,190 ADT. Given the nature of the land uses, trips were disaggregated into those which would remain within the Project site (internally captured) and those which would leave the Project site (external trips). Estimates for internal versus external trip generation percentages were developed based upon likely origins/destinations of each land use type. These estimates were then cross-checked with project trip generation estimated by the SANDAG model. Internal capture was estimated at 5,275 ADT. Only external trips (estimated at 21,915) were distributed and assigned to the study area roadways.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

5.5.2 *Future Volumes and Planned Roadway Classifications*

Pursuant to the *San Diego County General Plan Mobility Element*, Otay Lakes Road (or a future parallel street of sufficient design to handle projected build-out traffic levels) is classified as an ultimate 4-Lane Major Road with Raised Median between the City/County boundary and the second Project access and will be improved to this classification with the Project. East of this point to SR-94, Otay Lakes Road is classified as a 2-Lane Community Collector, and will be improved to this classification with the Project.

In order to the minimize the potential environmental impacts to the City of San Diego MSCP Cornerstone Lands along Otay Lakes Road, the project is proposing to reclassify Otay Lakes Road, between Lake Crest Drive and the planned Project Driveway #2 (Strada Piazza) from 4.1B-Major Road with Raised Median to 4.2A - Boulevard with Raised Median. Exhibit I shows the amended General Plan Mobility Element Circulation Map for the Otay Community Plan Area proposed by the project.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

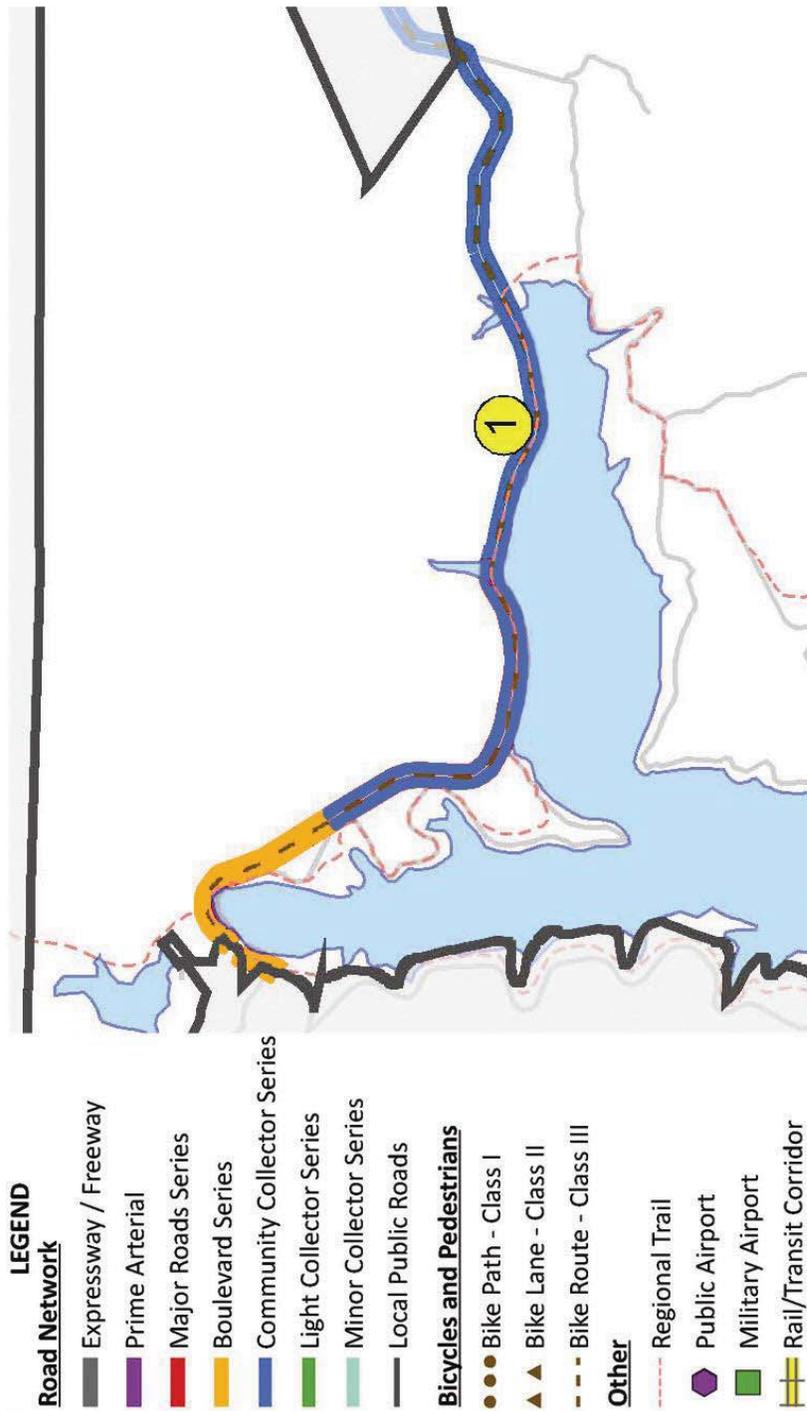


Exhibit I
Proposed General Plan Mobility Element Roadway Map (Otay)

5.6 Adequacy Analysis

The adequacy of the traffic system is based upon the *Otay Ranch Resort Village Traffic Impact Analysis*, prepared by Chen Ryan. This study provides a cumulative analysis of the existing and anticipated traffic volumes in the region in order to provide for increased traffic levels that will result from development of the Project in combination with other planned land uses. This analysis is based upon a computer generated "Select Zone" study utilizing the adopted SANDAG Year 2030 Transportation Model.⁶

5.6.1 Street Segments Influenced by the Otay Ranch Resort Projected Traffic

Utilization of the arterial performance standards presented in the Traffic Impact Analysis and the required adherence to the traffic thresholds result in full conformance with the requirements of the mitigation measures described in the Findings of Fact adopted for the Otay Ranch Program EIR related to Transportation, Circulation, and Access.

The Select Zone assignment generated by the SANDAG Year 2030 model results in a distribution of the total number of projected Project vehicular trips anticipated to utilize freeway and arterial roadway segments within the area of influence of the Project.

The Select Zone model output from SANDAG shows future year 2030 daily segment volumes on all facilities in the vicinity of the Project. The County of San Diego also requires that an assessment be conducted consistent with the Congestion Management Program which necessitates analysis of all key segments which carry project trips of 50 or more peak hour trips (in either direction) on roadways and carry 150 or more peak hour trips (in either direction) on freeway links.

5.6.2 Future Year 2030 Analysis (Intersections Over Volume Threshold)

All study area intersections would operate at acceptable LOS D or better during the AM and PM peak hours, with the exception of the intersection of Otay Lakes Road/Wueste Road, which would operate at an unacceptable LOS F during the PM peak hour. This intersection would be considered to be a direct impact by the Project traffic.

⁶ For modeling purposes Otay Lakes Road was modeled at a 4-lane design to the 2nd driveway of the Project, and two lanes for the balance of the roadway through the project.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

5.6.3 *Future Year 2030 Analysis (Street Segments Over Volume Threshold)*

Nine roadway segments within the study area would operate at LOS D, E or F as follows: *(From p. 117 of the TIS)*

- Telegraph Canyon Rd, between Oleander Ave and Medical Center Drive (LOS E)
- Telegraph Canyon Rd, between Medical Center Drive and Paseo Ladera (LOS E)
- Telegraph Canyon Rd, between Paseo Ladera and Paseo Ranchero/Heritage Road (LOS E)
- Telegraph Canyon Rd, between Paseo Ranchero/Heritage Road and La Media Rd (LOS E)
- Otay Lakes Rd, between La Media Road and Rutgers Ave (LOS D)
- Otay Lakes Rd, between the SR-125 SB Ramps and SR-125 NB Ramps (LOS D)
- Olympic Pkwy, between SR-125 NB Ramps and Eastlake Pkwy (LOS D)
- Otay Valley Road, between SR-125 NB Ramps and Main Street
- Main Street, between SR-125 NB Ramps and Eastlake Pkwy (LOS D)

However, the project's contribution to most of these segments would not be more than 5% of the total traffic volume, nor would the project contribute more than 800 ADT. In the case where roadway segments are project to operate at LOS D or E with project traffic comprising 5% of the total entering volume and more than 800 ADT, all intersections along these segments are projected to operate at LOS D or better. Since peak hour intersection operations are considered a better indicator of the true roadway operating conditions (since intersections typically control the traffic flow along roadway segments). All intersections along these segments are projected to perform at LOS D or better at Year 2030, thus, the roadway segment impacts would not be considered significant.

5.6.4 *Future Year 2030 (Freeway and State Highway Segments Operating Over Volume Threshold)*

All study freeway and state highway segments would continue to operate at LOS D or better under the worst case scenario with the exception of the following two (2) segments:

- I-805, between Bonita Road and East H St (LOS E)
- I-805, between East H St and Telegraph Canyon Rd (LOS E)

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

However, the project traffic would increase the V/C ratio by 0.009 (less than .01); therefore, the project does not have a significant impact to this freeway segment.

5.6.5 Future Year 2030 (Freeway Ramp Intersections Operating Over Volume Threshold)

All signalized freeway ramp intersections would operate under capacity or at capacity, with the exception of the following five ramp intersections:

- I-805 SB Ramps/Telegraph Canyon Road (PM peak hour)
- I-805 NB Ramps/Telegraph Canyon Road (AM peak hour)
- SR-125 SB Ramps / Otay Lakes Road (PM peak hour)
- SR-125 SB Ramps / Main Street (AM peak hour)
- SR-125 NB Ramps / Main Street (PM peak hour)

However, based upon SANTEC/ITE Guidelines, the projected delay of 8.9 minutes (less than 15 min.) would be acceptable. The proposed project would not result in any significant impact at this on-ramp.

5.7 Inventory of Required Traffic Improvements

As a result of the build-out traffic impacts analysis above, the following table demonstrates the traffic improvements required for intersections impacted by project-related traffic under Future Year 2030 "worst case" assumptions. Subject to installation of these improvements, the Project will comply with the thresholds for transportation service facilities.

Based upon the results of the above analysis, improvements to the Otay Lakes Rd./Wueste Rd. intersection would be required of the Project. Intersection improvements are listed on Table 17.

Table 18: Required Build-out Intersection Improvements

Intersection	LOS Before Mitigation	Mitigation	LOS After Mitigation
Otay Lakes Rd. / Wueste Rd.	F	Secure and enter an agreement with the City of Chula Vista for construction of signalized intersection by the 1,500 th building permit	A

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

The proposed project would have a direct impact on one (1) roadway segment located in the City of Chula Vista and two (2) roadway segments located in the County of San Diego under Existing Plus Project (Buildout) conditions. The following roadway improvements would be required to mitigate these impacts:

- Otay Lakes Road, between Lake Crest Drive and Wueste Road (City) – Secure and enter an agreement with the City of Chula Vista to widen from 2 lanes to 4 lanes by the 910th building permit. This significantly impacted roadway segment would operate at LOS B with the roadway widening.
- Otay Lakes Road, between Wueste Road and the City/County Boundary (City) – Secure and enter an agreement with the City of Chula Vista to widen from 2 lanes to the proposed 4-lane Boulevard with Raised Median (County’s 4.2A Public Road Classification), by the 728st building permit. This significantly impacted roadway segment would operate at LOS C with the roadway widening.
- Otay Lakes Road, between the City/County Boundary and Project Driveway #1 (County) – Widen from 2 lanes to the proposed 4-lane Boulevard with Raised Median (County’s 4.2A Public Road Classification), by the 896th building permit. This significantly impacted roadway segment would operate at LOS C with the roadway widening.
- Otay Lakes Road, between Project Driveway #1 and Driveway #2 (County) – widen from 2 lanes to the proposed 4-lane Boulevard with Raised Median (County’s 4.2A Public Road Classification), by the 896th building permit. This significantly impacted roadway segment would operate at LOS B with the roadway widening.

5.8 Threshold Compliance

Based upon the traffic analysis prepared for the Project, threshold compliance is projected to be maintained with implementation of the improvements identified in this PFFP.

5.9 Phasing Transportation Facilities

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

Improvements to existing roads and construction of new roadways are required for implementation of the Project. The following phasing tables describe the phasing of improvements for each transportation facility required by the Project.

Otay Lakes Road (Phases 1 and 2)

Phase 1 is comprised of Otay Lakes Road from the Lake Crest Drive to the first project entry at Guida Sicilia. This segment will be widened from two to four lanes to meet County standards.

Phase 2 is comprised of Otay Lakes Road from Guida Sicilia to Strada Piazza. This segment will also be widened from two to four lanes to meet County standards. Depending on the actual phasing of the Project, the following table describes the approximate schedule for when these improvements will be required.

Table 19: Required Build-out Street Segment Improvements – Chula Vista

Phase	Transportation Facilities Improvements (Otay Lakes Road Phases 1 and 2)*
Blue	<ul style="list-style-type: none"> • Secure and Enter into an Agreement to Construct prior to approval of First Final Map project wide. • Phase 1 – widen from 2 lanes to 4 lanes by the 896th building permit. This significantly impacted roadway segment would operate at LOS B with the roadway widening. • Phase 2 – widen from 2 lanes to the proposed 4-lane Boulevard with Raised Median (County’s 4.2A Public Road Classification), by the 896th building permit. This significantly impacted roadway segment would operate at LOS C with the roadway widening.
Gold	
Green	
Copper	
Orange	
Purple	
Red	
Silver	
Tan	
Yellow	

Otay Lakes Road (Phase 3)

Otay Lakes Road from the Strada Piazza entrance to the eastern edge of the Project site will be improved to County standards for a 2-lane Community Collector pursuant to the following phasing table.

Table 20: Required Build-out Street Segment Improvements - County

Phase	Transportation Facilities Improvements (Otay Lakes Road Phase 3)*
Blue	Secure and Enter into Agreement to Construct prior to issuance of

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

Gold	the 1,729 th residential Building Permit.
Green	
Copper	
Orange	
Purple	
Red	
Silver	
Tan	
Yellow	

On-site Road Improvements

Implementation of the Project will require the construction of on-site roads. The following table describes the phasing for the onsite road improvements.

Table 21: On-Site Transportation Facilities Improvements Phasing

Phase	Transportation Facilities Improvements (Otay Lakes Road Phase 1 and 2)
Blue	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct Strada Piazza from Entry to Via Campania prior to recordation of first final map in each phase.
Gold	
Green	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct Strada Piazza from Entry to Via Gubbio prior to recordation of first final map in phase.
Copper	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct Strada Piazza from entry to Via Barbera, Strada Sicilia and Via Barbera prior to recordation of first final map in phase.
Orange	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct Strada Sicilia, Via Uffizi and one access road prior to recordation of first final map recordation in phase.
Purple	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct Strada Piazza to entrance of MF prior to recordation of first final map in phase.
Red	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct Strada Piazza from entry to Via Gubbio South prior to recordation of first final map in phase.
Silver	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct 3rd project entry, from entry to Strada Piazza prior to recordation of first final map in phase.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Transportation Systems Facilities

	<ul style="list-style-type: none"> Secure and Enter into Agreement to Construct prior to recordation of First Final Map of Silver phase.
Tan	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct 3rd project entry, from entry to northerly entrance prior to recordation of first final map in phase.
Yellow	<ul style="list-style-type: none"> Secure and Enter into an Agreement to Construct 3rd project entry, from entry to Resort site prior to recordation of first final map in phase.

5.10 Financing Transportation Facilities

Construction of the above listed improvements will constitute the necessary financing of transportation facilities. These improvements will be funded through the developer(s) entering into agreements to secure and construct the improvements prior to recordation of the applicable Final Map. All onsite transportation facilities will be funded and constructed by the project developers.

Off-site improvements in the County of San Diego are funded through the County TDIF program. Otay Lakes Road is a TDIF eligible facility. The developers will enter an agreement with the County to secure and construct Otay Lakes Road subject to the triggers identified above. Because construction of the improvements to Otay Lakes Road is expected to cost more than the developers would otherwise pay through the TIDF program, the agreement will allow for the developers to be reimbursed by other projects in the County which generate ADT on Otay Lakes Road.

6.0 Urban Runoff Facilities

6.1 Otay SRP Threshold

An urban runoff diversion system shall be designed to ensure the protection of water quality within Otay Lakes.

6.2 Service Analysis

The County of San Diego is responsible for ensuring all runoff water conveyed in the proposed storm drain systems will be treated in compliance with Regional Water Quality Control Board (RWQCB) regulations and National Pollution Discharge Elimination System (NPDES) minimum criteria prior to discharging into natural watercourses.

In accordance with RWQCB Order No. R9-2007-0001, dated January 24, 2007, waste discharge requirements for discharges of urban runoff from municipal storm drainage systems shall not contain pollutant loads which cause or contribute to a violation of receiving water quality objectives or which have not been reduced to the maximum extent practicable. Post-construction Best Management Practices (BMPs), which refer to specific storm water management techniques, are required for each project within the jurisdiction of San Diego County. BMPs are necessary in order to manage construction and post-construction site runoff and minimize soil erosion and other pollutants from being transported downstream once they have been loosened by storm water. Post-construction pollutants are a result of the urban development of property and the effects of automobile use. Runoff from paved surfaces can contain soil sediment and a variety of pollutants transported by the water and sediment. Landscape activities and chemicals used by homeowners and commercial enterprises are an additional source of sediment and pollutants.

Compliance with the requirements of the RWQCB and the NPDES are a particularly important matter for the Project due to its proximity and upstream relationship to Lower Otay Reservoir. Lower Otay Reservoir is owned and operated by the City of San Diego, and development projects upstream of the lake have been required to provide the design and mechanical measures necessary to protect it from storm water pollution.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

Detailed analysis of projected urban runoff impacts for the Project has been conducted by Hunsaker and Associates, *Storm Water Management Plan for Otay Ranch Resort Village CEQA Preliminary Storm Water Management Plan*, dated September 2014, and the *Otay Ranch Resort Village Master Drainage Study*, also by Hunsaker and Associates, dated September 2014. The observations, analysis and conclusion of these studies are incorporated into this PFFP.

6.3 Project Processing Requirements

1. Identify urban runoff facility demand (by phase).
2. Identify locations of facilities for on-site and off-site improvements.
3. Provide cost estimates.
4. Identify financing methods.

6.4 Existing Conditions

The Lower Otay Lake drainage basin consists of approximately 62,720 acres. The Project covers approximately 1,889 acres (3%) of this area, and is located on the northern flanks of the foothills directly above Lower Otay Lake. The entirety of the Otay Ranch Resort Village drains into this lake.

The Project site is currently undeveloped. The topography is characterized by rolling moderate and steep hills sloping from north down to the south, and vegetation consists mainly of low-profile scrub and brush. A number of dirt roads cross the site. Runoff from the natural (existing) site drains via one of 23 existing culverts under Otay Lakes Road into Lower Otay Reservoir. No desiltation, water detention or other pollution protection facilities exist on the site in the existing condition.

Lower Otay Reservoir is a source of drinking water to the water customers of the City of San Diego. Any development of the Project site will necessitate a water quality protection program to ensure that the runoff from the developed watershed does not degrade water quality in the lake.

Based on data from the County of San Diego Flood Control Department, the 80-year average annual rainfall rate for the vicinity of the Project is 11.44 inches per year, and the average evaporation rate is 55 inches per year. The actual runoff generated during any particular storm event is a function of rainfall intensity and duration as well as soil type and antecedent moisture conditions for the soil at the time of the storm.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

The City of San Diego has compiled extensive data for Lower Otay Reservoir. This data was utilized to estimate the average annual runoff volume expected for the study area. The 98-year average runoff within the Lower Otay Drainage Basin is 6,819 acre-feet per year. The drainage basin is approximately 98 square miles. This equates to an average annual runoff of 0.109 acre-feet per acre. Applying this runoff coefficient to the 1,889 acre study area concludes that approximately 205 acre-feet of runoff can be expected on an annual basis for the undeveloped Project site in an average rainfall year.

6.5 Project Demand and Proposed Facilities (Developed Condition)

6.5.1 Post Development Runoff

Development of the Project will result in an increase in runoff from the site. A portion of the increase in runoff will be due to the use of imported water in the post-development study area. The balance of the increase in water is due to the increased impervious area within the development. This post-development runoff will be degraded to some degree and will need treatment to ensure that the site does not contribute to pollution of the lake. The acreage of post-development Project runoff characteristics are estimated on the following table:

Table 22: Proposed Project Runoff Characteristics

Description of Area	Acres
Designated Open Space and Preserve (including 20-acre NAP parcel)	1,122
Developed Area (including off-site Otay Lakes Road)	795
Total	1,917

Natural runoff from most areas north of the Project site will be separated from the developed site runoff via separate storm drain systems. Thus, runoff from natural (undeveloped) areas would continue to drain directly to the Lower Otay Reservoir, and not mix with runoff from the development until downstream of the proposed water quality basins (after low flows from the development areas have been treated). However, in an effort to optimize storm drain efficiency, and to avoid double, parallel storm drain systems in many streets of the proposed development, some runoff from natural areas will mix with runoff from developed areas.

All runoff from the developed Otay Ranch Resort Village Site will drain to the Lower Otay Reservoir. The runoff from the 85th percentile storm as defined by the SDCHM and drier weather runoff from developed areas of the Otay Ranch Resort Village Site will be diverted to the seven Water Quality Basins. Development of the site will not cause any diversion to or from the Lower Otay Reservoir watershed.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

Runoff in excess of the runoff volume produced by the 85th percentile storm will discharge to the Otay Lakes Road culverts and into Lower Otay Reservoir. The performance of the Water Quality Basins is described in depth in the Major Storm Water Management Plan for the Otay Ranch Resort Village. Since the capacity of Lower Otay Lake is sufficient to convey the proposed peak flow increases, and since the culverts will be upsized as necessary to convey the projected 100-year peak flow from the developed areas under Otay Lakes Road, no runoff detention basins will be required as part of this development. Post-development watersheds are shown graphically on Exhibit D.

At the downstream end of the internal storm drain systems, the culvert crossings at Otay Lakes Road will be upsized to prevent roadway overtopping during the 100-year design event. Table 22 summarizes the 100-year developed condition peak flows to each of the discharge locations at Otay Lakes Road. All flows listed in Table 22 were generated using the AES-2003 computer program and the Rational Method as explained in the SDCHM.

Table 23: Post Development Volume Based 85th Percentile Calculations

Watershed	Drainage Area	85th Percentile Rainfall (Inches)	Runoff Coefficient C	85th Percentile Volume (Ac. Ft.)
Basin 1	204.70	0.65	0.455	5.05
Basin 2	135.25	0.65	0.395	2.89
Basin 3	317.52	0.65	0.491	8.44
Basin 4	116.54	0.65	0.527	3.33
Basin 5	93.44	0.65	0.500	2.53
Basin 6	43.66	0.65	0.448	1.06
Basin 7	124.66	0.65	0.438	2.96

6.5.2 Post Development Pollutant Impacts

Urban runoff from the developed condition of the Project site will increase the quantity of runoff from the site, and thus has the potential to contribute pollutants into Lower Otay Reservoir. These pollutants could include sediment, oil, grease, suspended solids, metals, nutrients, pesticides, bacterial viruses, other organic compounds, and other debris.

Runoff from the developed portion of the Project site will drain towards one of seven water quality basins via internal storm drain systems and/or eight vegetated bio-

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

retention swales. A diversion structure (and Vortech unit for pre-treatment of runoff) is proposed to be provided upstream of each basin, which will divert 85th percentile flow to the basins. Runoff in excess of the 85th percentile flow will discharge directly to the Otay Lakes Road culverts and drain to the lake.

Runoff would be detained in the water quality basins and treated during the time it takes to drain completely. Treatment would include the settling of pollutants within the basins and filtering through the heavy vegetation at the bottom of each basin. A trash and debris rack would be fitted to the base of each structure to prevent clogging of the low-flow orifices. In this way, storm water pollutant, trash and debris removal would occur prior to discharge into Lower Otay Lake. Outlet structures at each basin would be sized and designed to convey runoff from the 100-year storm event.

Due to topographic constraints that make water quality basins infeasible, runoff from the remainder of the Project's developed/disturbed area, including runoff from certain portions of Otay Lakes Road and Strada Piazza, would be treated via Filterra Units or equivalent storm drain inlet treatment control devices and then discharged into natural drainages conveying flows into Lower Otay Lake. A Filterra Unit is flow-based storm drain inlet treatment control device that is a stand-alone system that accepts surface sheet flow from both streets and parking lots. A standard Filterra Unit treats the 85th percentile rainfall event and includes a bypass structure for higher flows.

The Project's bio-retention water quality basins (bio-retention basins and vegetated roadside swales), provide a high removal efficiency for coarse sediment, trash and debris, a high removal efficiency for pollutants that tend to associate with fine particles during treatment including fine sediment, undissolved nutrients, heavy metals, organic compounds, oxygen demanding substances, bacteria, oil and grease, and pesticides, while providing medium pollutant removal efficiency for dissolved nutrients. The Project's vegetated swales and high-rate biofilters, provide a high removal efficiency for coarse sediment, trash and debris, a medium pollutant removal efficiency for pollutants that tend to associate with fine particles during treatment including fine sediment, un-dissolved nutrients, heavy metals, organic compounds, oxygen demanding substances, bacteria, oil and grease, and pesticides, and low pollutant removal efficiency for dissolved nutrients. Finally, the remainder of the Project's developed/disturbed areas consisting of vegetated and irrigated slopes within the Project's development footprint that will not receive runoff from the project's streets and roads and will be self-treating and natural landscaped slopes.

The Project's bio-retention basins, vegetated roadside swales, and Filterra Units constitute the Project's storm water capture and treatment BMPs (Treatment Control

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

BMPs). Internally, the Project's proposed drainage system and storm water capture and treatment BMPs for onsite areas and the improvements to Otay Lakes Road are designed to prevent a substantial increase in erosion on-site. Under the developed condition, the Project's streets are designed to drain directly into the Project's storm drain system. The storm drain system is designed to capture runoff from the developed portions of the Project area, including graded home sites/building pads and impervious surfaces such as rooftops, roads, and parking lots and direct that runoff into the Project's storm water capture and treatment BMPs. Prior to discharge, most of the Project's runoff is directed into bio-retention basins and the remainder of the Project's runoff is directed into vegetated roadside swales or storm drain inlet treatment control devices (e.g., Filterra Units or equivalent inlet treatment devices) prior to discharge into the Reservoir or into natural drainages feeding the Reservoir.

Table 23 also provides an estimate of runoff quantities for the undeveloped and developed conditions of the Project. As the table demonstrates, the amount of water from irrigation return flows is high in the developed condition, which may affect both the quality and quantity of runoff.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

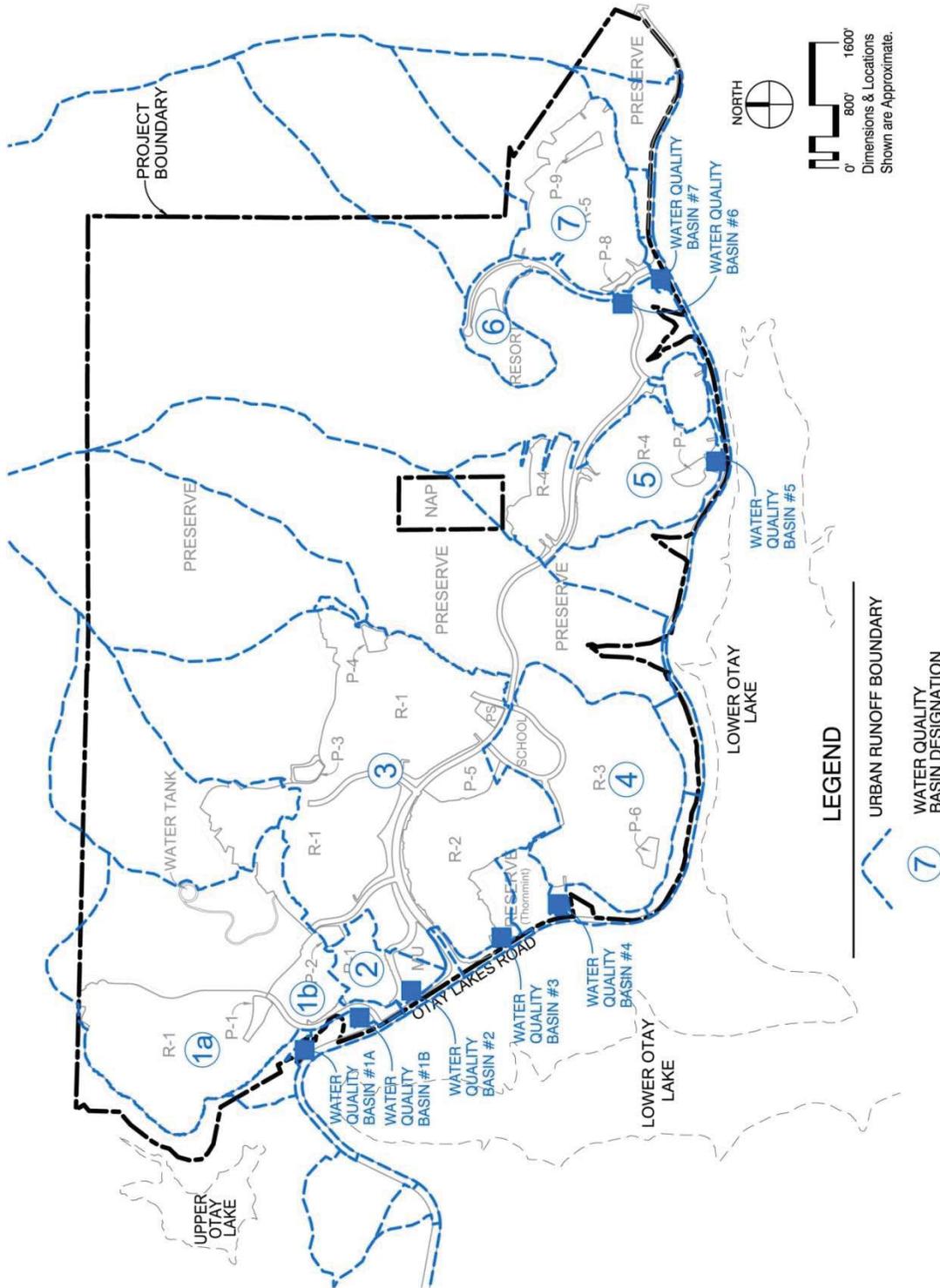


Exhibit J – Urban Pollution Control Basin Facilities Plan

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

Table 24: Pre and Post-Development 85th Percentile Peak Flows

Discharge Culvert	85th Percentile Pre-Development Peak Flow (cfs) ⁽¹⁾	85th Percentile Post-Development Peak Flow (cfs) ⁽¹⁾
1	2.10	2.10
2	2.71	2.71
3	N/A	N/A
4	8.20	0.92
5	2.16	0
6	10.90	1.24 ⁽²⁾
7	32.32	16.90 ⁽³⁾
8	1.63	0
9	7.38	2.05 ⁽⁴⁾
10	0.85	0
11	0.49	0
12	1.01	1.28
13	0.67	0
14	0.88	0.84
15	20.54	16.94
16	6.04	3.68 ⁽⁵⁾
16A	0.59	0
17	1.44	0
17A	0.42	0
18	62.58	59.71 ⁽⁶⁾
18A	0.68	0
19	4.13	0.45
20	4.29	1.60
TOTAL	172.01	110.41

Notes:

(1) : Intensity is 0.2 in/hr for all purposes to calculate peak flow, except when the peak is a discharge from basin and a detailed explanation is given.

(2) : Peak flow corresponds to the maximum discharge of the Water Quality Basin 1 that contributes to 100% of the area discharging into Culvert 6.

(3) : Peak flow corresponds to maximum discharge of WQ Basins 2 and 3 that contributes to 69.8% of the area plus additional 196 acres with C=0.355 (natural areas and a small portion of Otay Lakes Rd.).

(4) : Peak flow corresponds to maximum discharge of WQ Basin 4 that contributes to 89.2% of the area plus additional 17.1 acres with C=0.37 (natural areas and a small portion of Otay Lakes Rd.).

(5) : Peak flow corresponds to maximum discharge of WQ Basin 5 that contributes to 70.9% of the area plus additional 38.42 acres with C= 0.388 (natural areas and a small portion of roads).

(6) : Peak flow corresponds to maximum discharge of WQ Basins 6 and 7 that contributes to 16.9% of the area plus additional 29.9 acres with C= 0.52 (developed) plus 796.2 acres of natural areas (c= 0.35).

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

6.5.3 *Volume-based Best Management Practices*

The Project includes seven volume-based BMPs. Volume-based BMPs shall be designed to mitigate the volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the local historical rainfall record. Such facilities are usually designed to store the first flush runoff event below the principle spillway elevation (riser, weir, etc.) while providing a means for low flow dewatering.

The runoff volumes contained below the overflow elevation of the basin riser will be slowly discharged from the treatment control basin via low flow orifice(s) in the basin riser. After passing through the riser, an outlet pipe will dewater the basin and discharge runoff to the receiving storm drain.

Runoff will be collected and treated in the Water Quality Basin within the area between the basin bottom elevation and the peak flow riser opening. Treatment will be addressed primarily through the settling of pollutants within in the basin and filtering through the heavy vegetation at the bottom of the basin.

Dewatering will occur via one or more low flow orifice built into the side of the riser structure within each basin. Such orifices, located at an invert elevation coincident with the basin bottom elevation, will provide the runoff with a 24 to 72 hour residence time prior to full basin dewatering. A trash and debris rack will be fitted to the base of the structure to prevent clogging of the low flow orifice.

Outlet structures will be designed to convey runoff by-passed from the main storm water system to the basins during the occurrence of the 100-year frequency storm. Storm water treatment should occur prior to discharge to any downstream receiving water body supporting beneficial uses.

The elevations for the orifices within the basins have been preliminary determined (via a stage-storage calculation) for attainment of the appropriate water quality volume for each basin.

The basins have been designed such that runoff in excess of the first flush volume will bypass the basin via either a large diameter riser opening or a diversion structure located upstream of the basin. Further, natural drainage courses downstream of the outlet will be protected from erosive velocities with appropriately designed velocity control structures such as rip rap aprons or energy dissipaters.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

6.5.4 *Flow-based Best Management Practices*

The Project will also include flow-based BMPs. These apparatus will be designed to treat runoff produced from a rainfall intensity of 0.2 inches per hour. Such BMP's utilize either mechanical devices (such as vaults that produce vortex effects), or non-mechanical devices (based on weir hydraulics and custom-designed filters) to promote settling and removal of pollutants from the drainage water.

6.5.5 *Urban Runoff Control Basins*

The Project residential development will cover approximately 777.5 acres. Approximately 1,111.5 acres will remain in their natural, undeveloped condition within the area. Elevations for this area range from a low of approximately 500 feet AMSL at the edge of Lower Otay Lake, to 1,500 feet AMSL on the ridge at the north end of the Project site.

Seven water quality basins are proposed to control runoff from the developed portion of the Project site. These basin locations are shown on Exhibit J. Each of these basins will be subject to the BMP maintenance program articulated in this PFFP. Basin design data is depicted in the following table.

Table 25: Urban Runoff Basin Design Data

BMP Name	Total Drainage Area (acres)	85th Percentile Rainfall (inches)	Runoff Coefficient C	85th Percentile Volume (ac-ft)
Basin 1	201.35	0.65	0.455	5.05
Basin 2	135.65	0.65	0.395	2.89
Basin 3	326.65	0.65	0.491	8.44
Basin 4	116.00	0.65	0.527	3.33
Basin 5	92.43	0.65	0.500	2.53
Basin 6	28.69	0.65	0.448	1.06
Basin 7	122.59	0.65	0.438	2.96

Additional detailed information of exactly how the Project will comply with water quality requirements will be provided as part of the final engineering review process. In this manner, the type, location, cost and maintenance obligation of the selected BMPs will be given consideration during the project planning and design. The County requires that prior to approval of any tentative map and/or site plan for the project, the

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

applicant shall obtain the approval of a water quality technical report containing specific information and analysis on how the project will meet the requirements of the County Storm Water Control ordinance by the County Engineer. Ultimate development of the Project will incorporate a Post-Construction Storm Water Operation and Management Plan.

6.5.7 Construction

During the construction phase, the Project will be subject to the requirements of the General Construction Permit. Development of the Project will comply with the requirements of this permit through implementation of a site-specific Storm Water Pollution Prevention Plan (SWPPP) for each planning area and by incorporating temporary BMPs for the control of sediment and other pollutants.

6.6 Adequacy Analysis

Development of the Project site, and the associated downstream culverts, will result in the necessary protection of Lower Otay Lake from urban pollution emanating from the Project site. Seven water quality basins will be designed of an adequate size to handle the necessary treatment volumes and thus will adequately address pollutants generated by the Project. Subject to installation of these extended detention basins, the Project will consist of an adequate program of urban runoff protection.

As a result of the fact that the capacity of Lower Otay Lake has been determined to be sufficient to convey the proposed peak flow increases, and since culverts will be upsized to convey the projected 100-year peak flow from the developed areas under Otay Lakes Road, no detention basin of storm water will be required in conjunction with development of the Project.

As a result of the above factors, the following conditions shall be required of the developer of the Project:

1. The Project shall be responsible for the conveyance of ultimate storm water flows into water quality basins in accordance with County of San Diego standards. The County Department of Public Works and the County Flood Control District shall review all plans to ensure compliance with County Engineering Standards. Satisfaction of drainage conditions of approval associated with subdivision of the site will ensure protection of water quality within Lower Otay Lake, and thus constitutes compliance with the adopted threshold.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

2. The applicants shall demonstrate compliance with the County of San Diego Storm Water and Discharge Ordinance and the National Pollutant Discharge Elimination System (NPDES) Municipal Permit. The applicants shall also obtain approval of the County Engineer of a 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 to be implemented.
 - c. Description of applicable treatment control BMPs.
 - d. Justification for selection of the proposed BMPs including; (a) targeted pollutants, justification and alternatives analysis, (b) design criteria (including calculations), (c) pollutants removal information, and (d) literature references.
 - e. Site plan depicting locations of the proposed BMPs.
 - f. Operation and maintenance plan for the proposed BMPs.
3. The project shall be designed to avoid violation of any water quality standards or waste discharge requirements.
4. Development of the project site shall not degrade potential beneficial uses of downstream water bodies as designated by the Regional Water Quality Control Board, including water bodies listed on the Clean Water Act Section 303d List.
5. Development of the project site shall not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be net deficit in aquifer volume or a lowering of the local groundwater table.

6.7 Inventory and Estimated Costs of Future Required Urban Runoff Facilities

The following list of major urban runoff protection facilities will be required as a condition of the proposed Project.

Table 26: Inventory of Urban Runoff Protection Facilities

Urban Runoff Facility	No.	Phase	Responsibility
Water Quality Basins	7	Various	Developer
Vegetated Bio-retention Swales	8	Various	Developer

The Otay Ranch Resort Village
Public Facilities Finance Plan
Urban Runoff Facilities

6.8 Threshold Compliance

Subject to phased developer installation of the above-referenced urban runoff facilities and fulfillment of the referenced conditions, including the condition to secure and construct the facilities prior to issuance of grading permits, the Project will be in compliance with the adopted threshold.

6.9 Urban Runoff Facilities Phasing

The following Table describes the phasing for runoff facility improvements in the Resort Village.

Table 27: Runoff Facilities Improvements

Phase	Runoff facilities Improvements
Blue	Secure and Enter an Agreement to Construct Basin #3 prior to issuance of grading permit for each phase. Construct prior to issuance of First Final Map in each phase.
Gold	
Green	
Copper	Secure and Enter an Agreement to Construct Basin #1A, #1B and #2 prior to issuance of grading permit in phase. Construct prior to issuance of First Final Map in each phase.
Orange	Secure and Enter an Agreement to Construct Basin #1 prior to issuance of grading permit in phase. Construct prior to issuance of First Final Map in each phase.
Purple	Secure and Enter an Agreement to Construct Basin #2 prior to issuance of grading permit in phase. Construct prior to issuance of First Final Map in each phase.
Red	Secure and Enter an Agreement to Construct Basin #4 prior to issuance of grading permit in phase. Construct prior to issuance of First Final Map in each phase.
Silver	Secure and Enter an Agreement to Construct Basin #5 prior to issuance of grading permit in phase. Construct prior to issuance of First Final Map in each phase.
Tan	Secure and Enter an Agreement to Construct Basin #7 prior to issuance of 1st grading permit in phase. Construct prior to issuance of First Final Map in each phase.
Yellow	Secure and Enter an Agreement to Construct Basin #6 prior to issuance of grading permit in phase. Construct prior to issuance of First Final Map in each phase.

6.10 Financing Urban Runoff Facilities

County of San Diego policy requires that onsite drainage facilities necessary to support the Project be funded and constructed as a portion of the development construction operation. As such, the Project will be required to enter into an agreement to secure and construct those facilities identified in this section prior to the issuance of grading permits in accordance with County Ordinance.

The financing and construction of urban runoff facilities required by the Project will be provided by either developer funding or bond debt financing. Off-site improvements which are part of the construction of Otay Lakes Road will be funded by the developers.

7.0 Water Facilities

7.1 Otay SRP Threshold

Ensure an adequate supply of water on a long-term basis, prior to development of each Otay Ranch SPA.

7.2 Service Analysis

Water service is anticipated to be provided to the Project site by the Otay Water District (OWD). OWD is a member of the San Diego County Water Authority (SDCWA) and Metropolitan Water District (MWD). It is the policy of these districts to ensure new growth will not reduce the availability of adequate water supplies or jeopardize water quality standards. Each district is responsible for providing the capital facilities necessary to accommodate existing development and future growth.

The Project site is not currently located within the boundaries of the OWD. Upon certification of the Environmental Impact Report for the Project, the applicants anticipate applying for annexation into the Otay Water District service area and the SDCWA and MWD as appropriate. Annexation into OWD Improvement Districts 22 and 27 will be required prior to the provision of water service to the Project site. OWD presently has adopted plans for existing and planned facilities in the vicinity of the Project, and water service can be provided by expanding the existing system. These improvements will be needed in the OWD 980 Zone, within the Central Area System of the OWD.

OWD has prepared and utilizes the 2010 Urban Water Management Plan. The UWMP includes the project's water demands. Anticipated water service for the project site is analyzed in the Overview of Water Service for Otay Ranch Village 13, dated September 2014, prepared by Dexter Wilson Engineering, Inc.

On May 7, 2014, the OWD Board of Directors approved the Project's Water Supply Assessment and Verification Report (WSA&V). The report identifies the water demand projections for the Project and states that this demand is included in the water demand and supply forecasts of the SDCWA and MWD Urban Water Management Plans and other water resource planning documents of those water agencies. The report also identifies existing water supply entitlements, water rights, water service contracts,

The Otay Ranch Resort Village
Public Facilities Finance Plan
Water Facilities

water supply projects, and other agreements relevant to the identified water supply needs for the Project. The report documents that sufficient water supplies are planned for and intended to be available over a 20-year planning horizon, in normal, single dry, and multiple dry years, to meet the Project's projected water demand, in conjunction with all other existing and other planned development in OWD's service area.

Pursuant to OWD policy, the applicants will be required to prepare a subarea master plan (SAMP) for review and approval by OWD. The SAMP will provide more detailed information on the Project such as detailed design, phasing, pump station and reservoir capacity requirements, and extensive computer modeling to justify recommended water pipe sizes.

7.3 Project Processing Requirements

1. Identify phased demands in conformance with street improvements and in coordination with the construction of sewer facilities.
2. Identify locations of facilities for on-site and off-site improvements in conformance with the master plan of the water district serving the proposed Project.
3. Provide cost estimates.
4. Identify financing methods.
5. Prepare a Water Conservation Plan.
6. Annex the property to MWD, CWA, and OWD, if appropriate.
7. Assure adequate water supply in accordance with the phasing plan.
8. Prepare a Water Master Plan in conformance with the water standards of the appropriate district.

7.4 Existing Conditions

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

Potable water is provided to OWD's Central Service Area by SDCWA via the Second San Diego Aqueduct. Water is delivered at Aqueduct connections No. 10 and No. 12 and is conveyed by gravity to OWD's terminal reservoirs at a grade of approximately 624 feet. One hundred percent of OWD's demand is satisfied by purchases from the

The Otay Ranch Resort Village
Public Facilities Finance Plan
Water Facilities

CWA together with use of recycled water from the Ralph W. Chapman Water Recycling Facility (RWCWRF). A small amount of recycled water is also purchased from the Helix Water District (HWD).

OWD possesses several connections to SDCWA Pipeline No. 4 which delivers filtered water from MWD's filtration plant at Lake Skinner in Riverside County. OWD also possesses a connection to the La Mesa – Sweetwater Extension Pipeline, which delivers filtered water from the R.M. Levy Water Treatment Plant in the Helix Water District. This connection currently supplies water to the northern portion of the OWD only. Additionally, OWD has a connection to the City of San Diego's water system in Telegraph Canyon Road and has an agreement that allows it to receive water from the Lower Otay Filtration Plant.

No water service is currently provided to the Project site. The proposed Project will ultimately be served by the Central Service Area of the OWD. The 980 Zone is within the Central Service Area and is supplied water from Connection No. 10 and 12, to the SDCWA aqueduct which fills 624 Zone reservoirs. Water will then be distributed within the 624 Zone and pumped to the 711 and 980 Zone storage and distribution systems.

Two pump stations presently exist within the 980 Zone. One station is referred to as the 980-1 Eastlake Pump Station, which is located on the south side of Otay Lakes Road at Lane Avenue. This station pumps water from the 711 Zone system into the 980 Zone distribution system and into two existing 980 Zone reservoirs located in the OWD Use Area property. The 980 Zone Pump Station currently has three pumps (one standby), each rated for 4,000 gpm, which results in a firm station capacity of 8,000 gpm. The 980-2 Pump Station, located north of Olympic Parkway on the east side of Eastlake Parkway, pumps water from the 624 Zone to the 980 Zone and currently has three duty pumps, one standby pump, and two spare pump cans for future expansion. All pumps are rated for 5,000 gpm which results in a firm pumping capacity of 15,000 gpm.

In addition, there are currently two reservoirs within the 980 Zone. These reservoirs are located at the same site within the OWD Use Area property north of Rolling Hills Ranch. These reservoirs each have a capacity of 5.0 million gallons, which equals a total of 10.0 million gallons total storage capacity.

The major 980 Zone pipelines in the vicinity of the Project are all located west of the Project site and include transmission lines in Hunte Parkway and Otay Lakes Road. The 24-inch transmission line in Otay Lakes Road presently extends to just east of Hunte Parkway.

7.5 Project Demand and Proposed Facilities

7.5.1 Potable Water Design Program

In order to receive potable water service, the Project will require expansion of the existing 980 Zone system. In general, the potable water distribution system is designed to maintain static pressures between 65 psi and 200 psi. This criterion is used to initially divide a project between water service zones. Potable water distribution systems are also typically 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 are 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.

7.5.2 Duty Factors and Peaking Factors

Table 27 represents the duty factors used in projecting the total average day water demand for the Project. The required fire flows and durations are also listed. To convert average day potable water demands to maximum day demands, the conversion policy of the OWD Water Resources Master Plan has been utilized. The same Master Plan has been utilized to convert average day potable water demands to peak hour demands.

Table 28: Water Duty Factors

Land Use Designation	Unit Domestic Demand	Required Fire Flow (gpm)	Required Fire Flow Duration (hours)
Single Family (Medium Density 3-8 DU/Ac.)	500 gpd/unit	2,500	2
Multi-Family (<8 DU/Ac.)	500 gpd/unit	2,500	2
Restaurant	80 gpd/seat	3,500	4
Resort/Hotel Units	300 gpd/unit	5,000	4
Commercial	1,785 gpd/ac.	3,500	3
Public Safety	1,785 gpd/ac.	3,500	4
School	1,785 gpd/ac.	5,000	4
Park	2,155 gpd/ac.	---	---

The Otay Ranch Resort Village
Public Facilities Finance Plan
Water Facilities

7.5.3 *Projected Water Demands*

Utilizing the water duty factors identified above, the projected potable water demands for the Project are as shown on the following table.

Table 29: Proposed Project Projected Potable Water Demands

Land Use Designation	Quantity	Unit Demand	Total Average Demand (gpd)
Single Family	1,881 units	500 gdp/unit	940,500
Mixed Use Residential	57 units	500 gpd/unit	28,500
Mixed Use Commercial	20,000 SF	1,785 gpd/acre	3,570
Resort/Hotel	200 units	300 gpd/unit	60,000
Resort Commercial	20,000 SF	1,785gpd/SF	3,570
Public Safety Site	2.1 acres	1,785 gpd/acre	3,750
School	10.0 acres	1,785 gpd/acre	17,850
Park	28.6 acres	2,155 gpd/acre ¹	61,633
Manufactured Slopes	131.4 ¹ acres	2,155 gpd/acre ¹	283,167
Irrigated Common Areas	7.6 acres	2,155 gdp/acre	16,378
TOTAL			1,418,918

¹ Estimate for permanently irrigated open space

7.5.4 *Provision of Water Service*

The Project is expected to receive water service by expanding the existing 980 Zone water system. This expansion program will involve installation of several major 980 Zone Water System improvements that are presently identified in the OWD Capital Improvement Program. The existing 24-inch transmission pipe line in Otay Lakes Road is proposed to be extended as a 20-inch transmission pipe line in Otay Lakes Road, turning easterly into the project at the second project driveway (Strada Piazza) and ultimate connecting to a new 980 Zone reservoir located on a high point north of Planning Areas R-1. This reservoir is referred to as the 980-4 Reservoir and will possess a capacity of 5.0 million gallons. A 20-inch transmission line is proposed to be extended through the Project site to the third project entry (Strada Ravenna). All other facilities will be sized to meet only the needs of the Project and will comply with OWD's looping criteria and pressure requirements.

Ultimate development pads for the Project are expected to range in elevation from approximately 500 feet to 900 feet. As such, service from the 980 Zone will result in maximum static pressures ranging from 62 psi to 197 psi. In locations where pipeline

The Otay Ranch Resort Village
Public Facilities Finance Plan
Water Facilities

pressures exceed Otay Water District's standards for the use of PVC piping, ductile iron or steel pipe will be utilized.

7.5.5 *Water Conservation Plan*

The Otay SRP requires the preparation of a Water Conservation Plan for proposed projects, which has been prepared by AECOM. The Water Conservation Plan provides an analysis of water usage requirements of the Project, as well as a detailed plan of proposed measures for water conservation and other means of reducing per capita water consumption from the Project. This Water Conservation Plan identifies the measures needed to reduce water use in the Resort Village by 30%. Implementation of the Water Conservation Plan would further reduce potable water use by approximately 146,718 gpd; therefore, total average daily water use is approximately 1,272,200 gpd.

In addition, the Resort Village Specific Plan includes water conservation strategies for internal potable water usage. These strategies include:

1. Hot Water Pipe Insulation. This measure involves the insulation of hot water pipes with I-inch walled pipe insulation and separation of hot and cold water piping. This measure is estimated to result in annual savings of 2,400 gallons per residential unit.
2. Pressure Reducing Valves. Setting the maximum service pressure to 60 psi reduces any leakage present and prevents excessive flow of water from all appliances and fixtures. This measure is estimated to result in annual water savings of 1,800 gallons per residential unit.
3. Water Efficient Dishwashers. There are a number of water efficient dishwashers available that carry the Energy Star label. These units result in an estimated yearly water savings of 650 gallons per residential unit.
4. Dual Flush Toilets. The developer will install dual flush toilets within the project. This measure is estimated to result in annual water savings of 4,000 gallons per unit.

The above listed indoor water conservation measures would result in a daily reduction of 24.25 gallon of potable water per unit. For the 1,938-unit project plus the 200 rooms in the Resort, this would result in a total savings of approximately 51,845 gpd, bringing the overall water usage for the Resort Village down to 1,220,035 gpd.

7.5.6 *Water Storage Capacity*

OWD's policy is to provide a maximum of five average days of terminal storage capacity and rely on other storage or supply options to make up a total of ten days emergency storage supply. As shown on Table 28, the projected total daily demand for the Project at build-out will be 1,418,918 gpd. Water conservation strategies identified in the Water Conservation Plan and Resort Village Specific Plan would reduce this by approximately 198,563 gpd. The 5.0 million gallon 980-4 Reservoir will ensure an adequate storage of water is available to the Project. Additionally, the Project will comply with the emergency storage requirement by paying water meter capacity fees, which will ensure provision of the necessary storage capacity.

7.6 Adequacy Analysis

On May 7, 2014, OWD approved the Water Supply and Verification Report which evaluates and verifies that sufficient water supplies are being planned to serve the Project as well as existing and other reasonably foreseeable planned projects within the Otay Water District in both normal and single and multiple dry year forecasts for a 20-year planning horizon. Upon annexation into the OWD, water will be available to the Project site, considering both short and long term perspectives. Also, the amount of current capacity, including storage capacity, now used or committed can be modified or otherwise made available by authorities of these districts. These forecasts of water and water storage capacity will indicate the ability of the affected facilities to absorb forecasted growth, including the phased development projected in this PFFP. Thus, subject to installation of the backbone infrastructure water distribution system identified in this PFFP, the Project will provide an adequate program of water infrastructure.

7.7 Inventory and Estimated Costs of Future Required Water Facilities

The following list of major water distribution facilities will be required as a condition of proposed development of the Project.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Water Facilities

Table 30: Inventory of Major Water Distribution Trunk Facilities

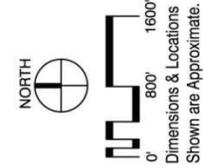
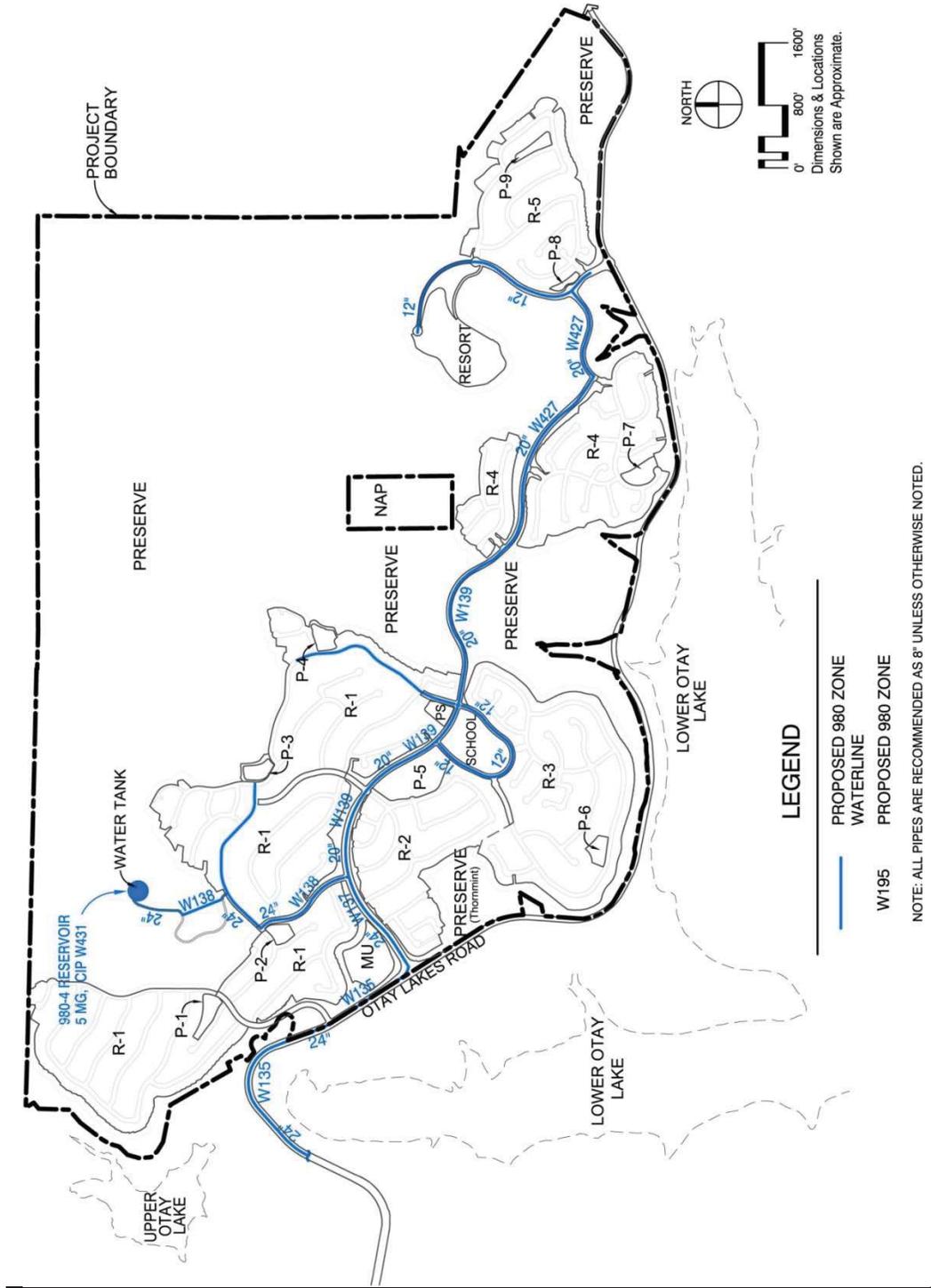
Water Distribution Facility	No.	Size	Phase/ Trigger	Responsibility
980-4 Reservoir	1	5 mg		OWD CIP
Extend 20" Transmission line in Otay Lakes Rd.	1	20' line	Widening of Otay Lakes Road	OWD CIP
Extend 20" Transmission line to Strada Ravenna	1	20' line	Any phase in the eastern or central portion of the project site	OWD CIP
Water Lines in internal streets			All	Developer

7.8 Threshold Compliance

The Otay Water District Water Resource Master Plan and the Overview of Water Service for Otay Ranch Village 13, prepared by Dexter Wilson Engineering, Inc., dated March 2010, identify water facilities necessary to provide the appropriate level of water service to meet the criteria established within the adopted plans. As such, the facilities identified in the plans are required to be constructed in conjunction with development of the Project. Additionally, the developers shall request and deliver to the County a service availability letter from the OWD prior to approval of each final map.

Water improvements shall be constructed in accordance with the report entitled Overview of Water Service for Otay Ranch Village 13 and as subsequently amended or otherwise modified by OWD.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Water Facilities



LEGEND

- PROPOSED 980 ZONE
- WATERLINE
- W195 PROPOSED 980 ZONE

NOTE: ALL PIPES ARE RECOMMENDED AS 8" UNLESS OTHERWISE NOTED.

Exhibit K – Water Facilities

7.9 Phasing Water Facilities

The Project includes improvements to water facilities necessary for implementation of the project. Certain facilities are required to be constructed concurrent or prior to construction of the project before service to the project site may begin.

Water Reservoir and extension of 24' transmission line - While it has been identified by OWD as part of the OWD CIP Plan, it cannot be assured that OWD will act to construct the Water Reservoir prior to the project creating demand for the facility. The developers shall enter an agreement to construct the 5.0 million gallon water reservoir and extension of the transmission line with the first final map, and shall complete construction of these facilities prior to the issuance of the 400th building permit if OWD has not commenced construction of the reservoir.

7.10 Financing Water Facilities

The financing and construction of potable water facilities will be provided by either developer funding, capacity fees or bond debt financing.

7.10.1 Developer Funding

On-site water distribution improvements within individual planning areas will be funded and provided by the developer in conjunction with the development improvement construction operation. The Developer will enter into an agreement to secure and construct the water facilities consistent with the Resort Village Phasing Plan.

7.10.2 Capacity Fees

OWD's Capital Improvement Program (CIP) wherein OWD facilitates design and construction of facilities and collects an appropriate share of the cost from developers through collection of capacity fees from water meter purchases. Capital Improvement Program projects typically include supply sources, pumping facilities, operational storage, terminal storage, transmission mains and rerouting of existing mains.

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

7.10.3 Annexation Fees

The Otay Ranch Resort Village
Public Facilities Finance Plan
Water Facilities

Annexation of the project into OWD is currently anticipated. A condition of annexation will be the payment of annexation fees to any applicable water distribution districts.

7.10.4 Bond Debt Financing

OWD may use bond debt financing from Improvement District 27 to assist in the financing of the District's CIP program. The project site will be annexed into the boundaries of Improvement District (ID) 22 and 27.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Civic Facilities

8.0 Civic Facilities

8.1 Otay SRP Threshold

Make provisions for general governmental facilities, including regional and municipal administrative facilities and operation center(s).

8.2 Service Analysis

The County of San Diego, in conjunction with special districts, is the current provider of municipal services to unincorporated areas, including the Project site.

8.3 Project Processing Requirements

Demonstrate conformance with the County General Plan Public Facility Element and the Otay Ranch Facility Implementation Plan.

8.4 Existing Conditions

No civic administrative facilities are presently located in Otay Ranch. The areas surrounding Otay Ranch are currently served by the County of San Diego, the City of Chula Vista, and the City of San Diego.

The Project is located within the jurisdiction of the County of San Diego. The County's central civic administrative offices are located in the County Administrative Center located at 1600 Pacific Highway, in downtown San Diego. The main County annex, including the Development Services Department, is located on Ruffin Road in Kearney Mesa, in the City of San Diego. The County Courthouse and Hall of Justice are located on W. Broadway in the City of San Diego. The division headquarters for the County's field operations is located in the Spring Valley area. That facility is supplemented by two small adjacent operation centers, and three additional stations located in Alpine, Campo and Descanso.

Major county facilities in the vicinity of the project site are shown in the following table.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Civic Facilities

Table 31: County Civic Facilities Inventory

Facility	Address
County Administration Center	1600 Pacific Highway, San Diego, CA 92101
County Operations Center Annex	5201 Ruffin Rd., San Diego, CA 92123
Health Services Complex	3851 Rosecrans St., San Diego, CA 92110
Hall of Justice	330 W. Broadway, San Diego, CA 92101
County Courthouse	220 W. Broadway, San Diego, CA 92101
County Operations Center	5555 Overland Ave, San Diego, CA 92123
East County Regional Center	250 Main St., El Cajon, CA 92020
South County Regional Center	500 Third Ave., Chula Vista, CA 91910

8.5 Project Demand and Proposed Facilities

Build-out of the Project (1,938 DU at 3.59 persons/du) will result in a projected total of 6,957 residents. This increase in population on the site, in conjunction with the proportional regional growth of the area, could result in the need for additional or expanded civic administrative facilities. Pursuant to the *Otay Ranch Facility Implementation Plan*, a ratio objective of 420 sq. ft. of civic administrative facility per 1,000 projected residents should be utilized in assessing project demand.

The calculation of projected population times the adopted civic administrative facilities ratio results in a projected demand from the Project totaling 2,922 square feet of gross floor area. This demand will be satisfied through the use of existing County civic facilities as identified in Figure M.

8.6 Adequacy Analysis

No specific civic facilities will be required of the proposed Project. Civic facility improvements are made through the County CIP, funded by the County General Fund. Payment of general taxes which contribute to the County General Fund from which civic facilities improvements are funded to the County CIP satisfies the demand created by the proposed Project.

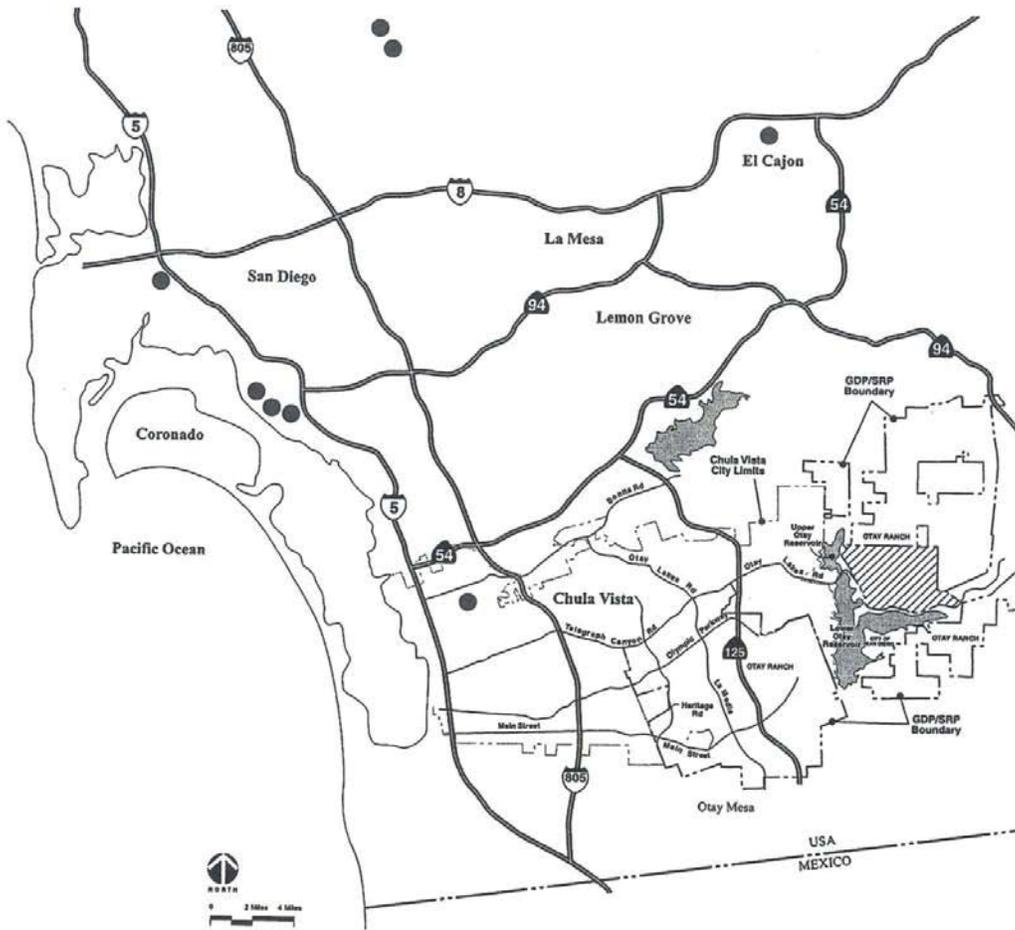
8.7 Threshold Compliance

Based upon the analysis contained in this PFFP, it is projected that the civic facilities threshold will be maintained throughout the development of the Project.

8.8 Financing Civic Facilities

Civic facilities serving the unincorporated area have been funded from the County General Fund and service revenues. The Fiscal Impact Analysis portion of this PFFP forecasts that development of the Project would generate surplus tax revenues to the County, that is, more tax revenues than are necessary to serve demand generated by the project. The fiscal analysis concluded that the project will result in a net fiscal annual surplus at build-out of an estimated \$4,492,767. Should the County elect, these revenues could be budgeted to fund additional facilities to meet the incremental increase in demand generated by this project. Additionally, the Otay SRP obligates the proposed Project to contribute its proportionate fair share to any regional impact fee program, if one were to be established. Thus, the project is projected to result in sufficient tax revenues to accommodate the demand for Civic Facilities.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Civic Facilities



LEGEND

-  Otay Ranch Preserve & Resort Community
-  Major County Administration Facility

PLANNING SYSTEMS 

COUNTY ADMINISTRATION CIVIC FACILITIES



Exhibit L – County Administrative Civic Facilities

9.0 Fire and Emergency Protection Facilities

9.1 Otay SRP Threshold

County of San Diego: Provide sufficient fire and emergency service facilities to respond to calls within single family communities with residential lots of less than two acres, or more intensive uses such as multi-family residential and all commercial development except neighborhood commercial, in a five-minute travel time.

9.2 Service Analysis

Fire protection and emergency services are among the most vital and basic community services provided. Generally, firefighters are the first responders to fires, medical emergencies, hazardous materials incidents, floods, earthquakes and other emergencies and disasters. In addition, firefighters perform fire prevention and public education activities.

9.2.1 Regional Context

The Project site is located within the jurisdiction of the San Diego Rural Fire Protection District (SDRFPD). The SDRFPD covers a 720-square mile area in southern San Diego County.

The SDRFPD provides both fire protection services and emergency medical services to the Project site. Under current circumstances, fire equipment and paramedic ambulance are stationed in Jamul, a 12-14 minute travel time to the Project site. The Project site is also within the boundaries of the Rural Paramedic Program.

9.2.2 Project Context

The SDRFPD responds to all calls for service within the boundaries of its service area, regardless of the nature of the call. However, Advanced Life Support (ALS) transportation services are provided via a contract between the County of San Diego and American Medical Services. Under current circumstances, fire equipment and paramedic ambulance are stationed in Jamul within a 12-14 minute travel time to the Project site.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

Dudek & Associates has prepared an Otay Ranch Resort Village Fire Protection Plan (FPP); March 2015, for the Project. This plan includes an analysis of existing conditions and potential fire risks, establishes a 100' Fuel Management Zone and makes recommendations for vegetation management and construction strategies to reduce the risk of wildland fires. The FPP also analyzes the demand for services generated by the Project and makes recommendations regarding fire resources and facilities required to meet the Project's projected demand for fire and emergency medical services.

Additionally, the Otay SRP currently located a fire station facility within Otay Ranch Village 15, south of Lower Otay Lake. However because Village 15 has been acquired for open space/conservation purposes, the Project proposes to amend the Otay SRP to relocate the Village 15 fire station to a 2.1 acre public safety site within the Project.

9.3 Project Processing Requirements

Specific Plan

- Specify facility site refined
- Equipment needs identified
- Identify alternative financing methods
- Timing of construction consistent with GDP/SRP project requirements
- Determine response times standards have been met
- Develop project-specific guidelines
- Review fuel modification plans by fire department(s)
- Assure appropriate water pressures and supply for fire control

Tentative Map

- Conditioned to dedicate or reserve site, as appropriate
- Funding identified

9.4 Existing Conditions

An inventory of the SDRFPD fire stations is shown on the following table.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

Table 32: SDRFPD Fire Station Inventory

SDRFPD Existing Facilities	Location
Station 36 - Jamul	14145 Highway 94 Jamul, CA 91935
Station 43 - Jacumba	1255 Jacumba St. Jacumba, CA 91934
Station 33 – Lawson Valley	3890 Montiel Truck Trail Jamul, CA 91935
Station 42 – Lake Morena	29690 Oak Drive Campo, CA 91906
Station 34 – Lee Valley	15781 Lyons Valley Rd. Jamul, CA 91935
Station 37 - Deerhorn	2383 Honey Springs Rd. Jamul, CA 91935
Station 26 - Donovan	480 Alta Rd. San Diego, CA 92179
Station 25 - Dehesa	5425 Dehesa Rd. El Cajon, CA 92179
Station 35 - Dulzura	1135 Community Building Rd. Dulzura, CA 91917
Station 24 – Harbison Canyon	113 Frances St. El Cajon, CA 92019
Station 38 - Tecate	444 Tecate Rd. Tecate, CA 91980
Station 45 - Descanso	9718 River Rd. Descanso, CA 91916
Station 39 - Potrero	24550 Highway 94 Potrero, CA 91963
Station 22 – East Otay Mesa	413 Alta Rd. San Diego, CA

9.5 Project Demand and Proposed Facilities

Development of the Project site is projected to result in a build-out residential population of approximately 6,957 persons. Using the SDRFPD’s estimate of 82 annual calls per 1,000 residents (which is consistent with CVFD call data of 80 annual calls per

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

1,000 residents), the Project's estimated 6,957 residents and 400 resort guests and 450 on-site employees at the retail center, hotel and school, would generate approximately 640 calls per year (about 1.75 calls per day). Eighty-five percent of calls (544 calls/year, or 1.5 calls per day) are expected to be medical emergency calls. Based upon the current per capita fire call generation rate, the Project could generate 96 fire calls per year (.25/day).

As previously described, the Resort Village will be built in phases. Based on the response analysis conducted in the FPP, the initial phases of the Resort Village will receive emergency services from an on-site, temporary SDRFPD fire station in either the Multiple-Use area or another location near Otay Lakes Road determined to be acceptable to the SDRFPD. The temporary fire station or interagency service agreement must be in place prior to issuance of the first certificate of occupancy and will remain in place until a permanent fire station is funded and constructed on-site.

The permanent on-site first station shall be constructed on the 2.1 acre Public Safety site identified in the Resort Village Specific Plan and Tentative Map. The fire station shall be sized to serve the Resort Village. If the facility is expanded to serve other areas within the SDRFPD, the Resort Village shall contribute its fair share of the cost to construct and equip the facility. In addition, the Resort Village will contribute its fair share of ongoing maintenance and operation costs associated with the fire station.

9.6 Adequacy Analysis

Response times from the existing SDRFPD station in Jamul to the Resort Village would result in a 12-14 minute travel time to the Project site. This level of service is inconsistent with the Otay SRP and County of San Diego threshold. Accordingly, additional facilities, staffing and equipment are necessary to serve the project.

Table 33 below summarizes the results of the emergency response analysis included in the FPP.

Table 33: Emergency Travel Times from Proposed On-Site Public Safety Site

5 Minute Travel Time	Units Reached	Percentage of Residential Units Reached (%)
On-Site Public Safety Site	1,938	100%

To avoid potential degradation of services, meet the anticipated increased demand in accordance with County emergency travel times and respond to the on-site risks, the

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

Project will be required to provide firefighting capabilities. The additional resources required to serve the project are outlined below, including the public safety site (land), fair share funding for facilities, staff and equipment and the staffing resources necessary to meet the demand for fire and emergency medical services generated by the Project.

9.7 Inventory of Future Required Facilities and Staffing

The discussion below outlines estimated facilities, equipment and staffing which would be necessary to serve the Project at build-out

- 2.1 acre Public Safety Site
- On-Site Fire Station
- 4 career firefighters
 - 1 ALS medic firefighter
- Type I Structure Engine
- Type III Interface Engine/Brush Rig
- Quint Ladder Truck (Resort Village to pay its fair share of cost of RFPD ladder truck if required due to if Resort or Multiple Use buildings are over 3 stories).

Below is a summary of the capital costs needed to service the proposed Project (including land).

Table 34: Capital Costs

Land (@ \$400,000/acre)	\$840,000
Facilities	
Temporary Fire Station (Pre-fab home w/ stick built)	\$285,000
Permanent Fire Station (6,400 SF @ \$350/SF)	\$2,240,000
Equipment	
Type I Structure Engine	\$600,000
Type III Interface Engine/Brush Rig	\$450,000-500,000
Quint Ladder Truck*	Fair share
Total Capital Costs	\$4,440,000

*only required if resort buildings are over 3 stories and the size best suited for the final height.

The SDRFPD projected staffing costs at approximately \$1.4 million/year (4 Full-time Career Firefighters) when the Project completes build-out and is fully staffed. In the interim condition, when the Project is served from a temporary on-site fire station,

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

the staffing is anticipated to consist of 2 full-time, career fire fighters and 1 volunteer. Final staffing levels and annual costs will be determined and documented in the Developer Agreement between SDRFPD and the Applicant(s). These figures are shown in Table 35 below.

Table 35: SDRFPD Operational Costs

Temporary Fire Station (2 career, 1 reserve)	\$541,156
Permanent Fire Station (4 career; including ALS medic)	\$1.4m

9.8 Threshold Compliance

Currently, crews and apparatus from the Jamul SDRFPD station would result in a 12-14 minute travel time to the Project site. This response timeframe exceeds the adopted threshold. However, upon implementation of an on-site fire station (both in the interim and permanent scenarios), the project would have response times of less than five minutes, as shown above in Table 32 and Figure L.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

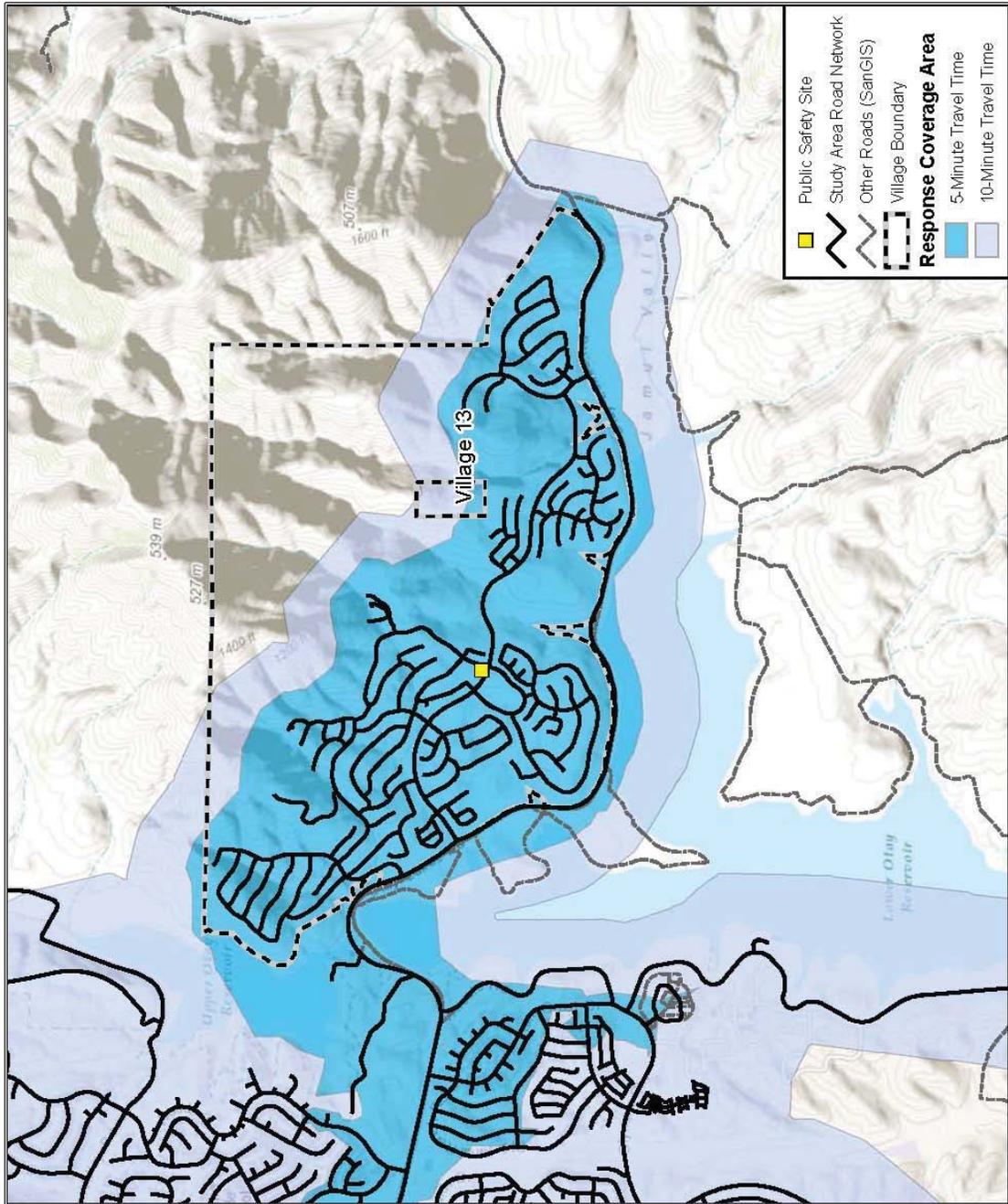


Exhibit M - Fire Response Modeling

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

9.9 Financing Fire Service Facilities

LAFCO recognized the difficulty of funding fire protection in its 2003 report, *Funding Fire Protection*. This report identifies a number of strategies, including, “Encourag[ing] fire protection providers to investigate increased cooperative arrangements...if doing so would produce efficiencies that could decrease dependence on property tax-supported operating budgets.”

9.9.1 Capital Improvements

The County of San Diego and the SDRFPD have enacted a Fire Mitigation Fee program which is applicable to the Project. The Fire Mitigation Fee is presently calculated at \$0.46/sq. ft. The dedication of land for the public safety site may be credited against the total Fire Mitigation Fee. Table 35 estimates the Fire Mitigation Fees to be paid by the Project.

Table 36: Estimated SDRFPD Fire Mitigation Fee

Land Use	Avg. sq. ft.	Homes	Subtotal SF	Fire Mitigation Fee
Single Family Residential	3,440	1,881	6,611,715	\$ 3,041,389
Multiple Use Residential	1,500	57	114,000	\$ 52,440
Commercial	40,000		40,000	\$ 18,400
Resort	120,000		120,000	\$ 55,200
Total		1,938	6,885,715	\$ 3,167,429

It should be noted that while the anticipated Fire Mitigation Fee is approximately \$3.17m, the actual costs to provide fire service are roughly \$4.440m. The project will pay over \$1.0m more than would be required by the Fire Mitigation Fee because it is funding more than its fair share of the cost of each of the separate facilities.

9.9.2 Operational Funding

In addition to the fee programs described above, the SDRFPD will receive 1.8989% or 1% of property taxes generated from the Resort Village, or \$289,505 per year to fund staffing and operations. Other sources for funding fire and EMS facilities and ongoing staffing and maintenance costs include local, state, and federal grants and loans, establishment of a County Service Area assessment district and/or formation of a CFD. The Developer Agreement between the SDRFPD and the Applicant(s) will include the final funding strategy for the Resort Village.

10.0 Law Enforcement Facilities

10.1 Otay SRP Threshold

1. Respond to 84 percent of "Priority One" emergency calls within seven minutes and maintain an average response time to all "Priority One" emergency calls of 4.5 minutes or less.
2. Properly equipped and staffed police units shall respond to 62 percent of "Priority Two Urgent" calls within seven minutes and maintain an average response time to all "Priority Two" calls of seven minutes or less measured annually.

10.2 Service Analysis

The County of San Diego provides law enforcement services for all unincorporated areas of the County, including the project site.

Law enforcement facilities and services are addressed as part of the Otay SRP in the Facility Implementation Plan (p.198) and in the Resort Village Specific Plan. The San Diego County General Plan Public Facilities Element also addresses law enforcement facilities.

10.3 Project Processing Requirements

Demonstrate conformance with the County General Plan Public Facility Element and the Otay Ranch Facility Implementation Plan.

10.4 Existing Conditions

The County Sheriff's Department currently provides law enforcement services to the County's unincorporated area and by contract to the cities of Del Mar, Encinitas, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, Solana Beach and Vista. Services include general patrol, traffic enforcement, criminal investigation, crime

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

prevention, juvenile services, communications dispatch and various management support services.

As San Diego County's Chief Law Enforcement Officer, the Sheriff also provides regional law enforcement services for the entire County. These services include investigation, aerial support, emergency planning and response, law enforcement training and the operation of six County detention facilities.

Law enforcement service is provided to the Project site through the Imperial Beach Sheriff's Station. This station also serves the City of Imperial Beach, the community of Bonita and portions of East Otay Mesa. Per the County General Plan Public Facility Element, the response time threshold for urban unincorporated areas is eight minutes for priority calls (life threatening situations or felonies in progress) and 15 minutes for non-priority calls. However, the Project is held to the stricter thresholds stated above, as defined by the Otay SRP stated above.

The Imperial Beach Sheriff's Station presently has 44 sworn, 11 non-sworn, 7 clerical /front counter and 4 CSO's (66 total) employees. There are 18 patrol units each day, including general patrol, traffic enforcement and community service officers.

10.5 Project Demand and Proposed Facilities

The proposed Project will increase the demand for police service through the addition of residential and other uses in an area that is presently vacant and demands relatively few law enforcement services.

The San Diego Sheriff Department has analyzed the projected demand of the Project and submitted a staffing projection, dated November 19, 2008, for the Project. The Sheriff stated:

*"There are 1,938 housing units planned for Village 13. Chula Vista Police Department experiences 1.38 calls for service per housing unit in their adjacent, similarly developed patrol area. At that rate, 2,674 calls for service will likely occur from residents. Weighting this for the mixed-use development that is similar to the 4S Ranch, and intending to model the service provided to that community, calls for service and population calculations yield a Demand Population of 10,400 for Village 13. At the field staffing standard and relief factor, this population will employ the time of **six** patrol deputies."*

The Otay Ranch Resort Village
Public Facilities Finance Plan
Law Enforcement Facilities

In addition to the six sworn field personnel, an unidentified number of support staff will be required. Using the Otay Ranch Facilities Implementation Plan standard of 1.74 support staff to every 1.67 officers, the projected demand for law enforcement support staff is six staff members.

10.6 Adequacy Analysis

Payment of general taxes contributes to the County General Fund through which law enforcement facilities improvements are constructed pursuant to the County CIP. Therefore, tax revenues collected from the Project will assure provision of future required facilities. Additionally, a 2.1 acre public safety site will be reserved within the Project. The site could accommodate a Sheriff's "storefront", along with a fire station. A storefront could also be accommodated in the commercial space within the Mixed Use area of the project.

The Sheriff's office stated in an email that:

The Village 13 facility would not be a 'manned' space, but would give deputies responding to calls or patrolling in the area a place to go and access a computer or write a report. This could be co-located with the Fire facility in a 'public safety center' as long as it didn't impact Fire's operations...somewhere around 300 [square feet] would be adequate.

These correspondences conclude that the combination of payment of tax revenues and provision of a location accommodating a Sheriff's "storefront" in conjunction with the public safety site is adequate to serve the Project.

10.7 Inventory of Future Required Facilities

A 2.1 acre public safety site is reserved within the Project. A Sheriff's storefront may be located within the public safety site or within the commercial component of the Mixed Use area in the Project. The Sheriff Department has indicated (email from Jody Mays dated 11/19/08), that a "storefront" safety office would be approximately 300 square feet in floor area.

10.8 Threshold Compliance

Based upon the analysis contained in this PFFP, it is projected that the law enforcement threshold will be maintained throughout the development of the Project.

10.9 Financing Law Enforcement Facilities

The Sheriff's law enforcement facilities serving the unincorporated area have been funded through the County General Fund. Based upon the analysis contained in this PFFP, it is projected that the law enforcement facilities threshold will be maintained throughout the development of the Project.

The Fiscal Impact Analysis portion of this PFFP forecasts that development of the proposed project would generate a \$4,492,767 annual surplus to the County of San Diego, at build-out. This surplus exists even after the Fiscal Impact Analysis model assumes a County cost of \$7,495,969 per year for law enforcement protection to serve the Project's expected demand as calculated by the Sheriff's office.

11.0 Library Facilities

11.1 Otay SRP Threshold

Provide 350 square feet (gross) of adequately equipped and staffed regional/area library facilities per 1,000 population.

11.2 Service Analysis

The County of San Diego, City of Chula Vista and the City of San Diego provide library and media services for the Otay Ranch area.

The San Diego County Library Department provides services to the unincorporated areas (including the project site) and eleven of the surrounding cities. The County Library Department presently operates 33 branch libraries throughout the county, plus a mobile library. One additional library is proposed at this time. The Otay Ranch Facilities Implementation Plan identifies the Eastern Urban Center in the City of Chula Vista as the future location of a library serving the needs of the entire Otay Ranch planning area.

11.3 Project Processing Requirements

- Identify phased demand in relation to supply.

11.4 Existing Conditions

The County of San Diego has five library facilities serving the South County area. The facilities are located in Bonita, Imperial Beach, Lincoln Acres, Spring Valley and Rancho San Diego. Bookmobile service provides circulation and distribution in rural areas. The locations of the 33 County branch libraries are identified in Table 37 and Figure N. The Project site lies within the service area of the Rancho San Diego County library.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Library Facilities

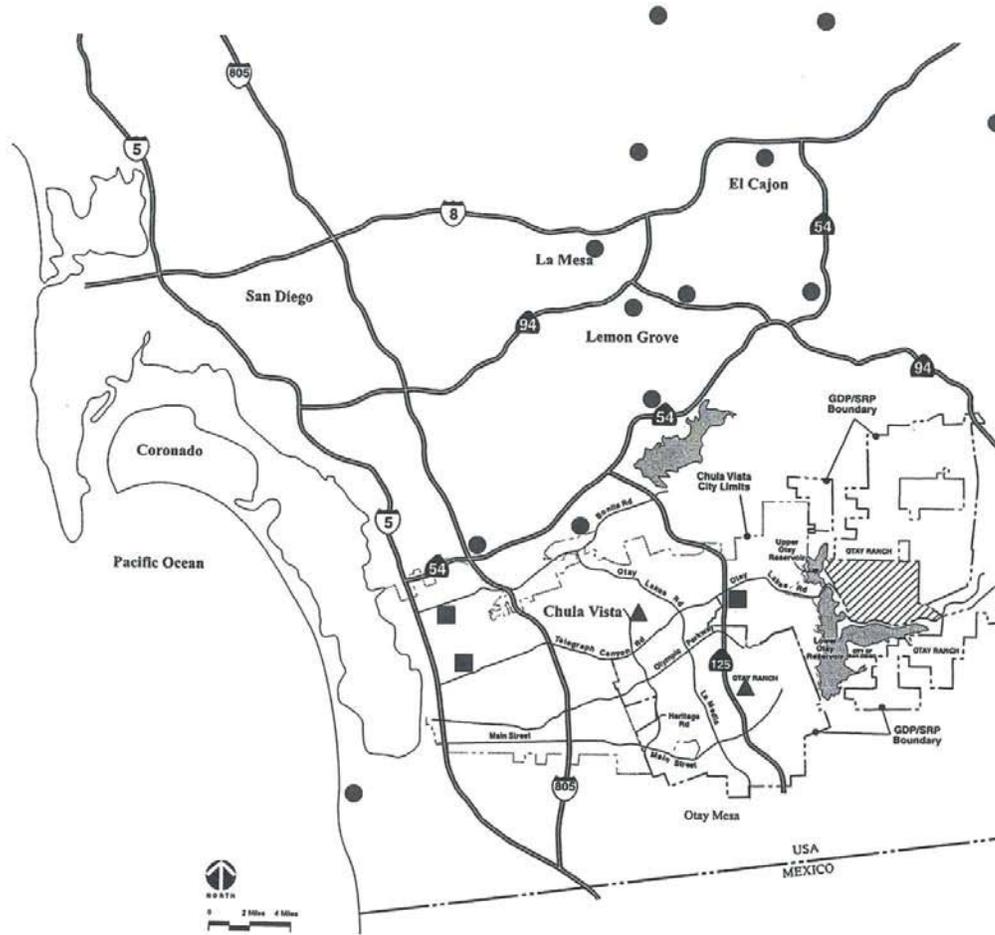
Table 37: Existing San Diego County Library Facilities

Library Branch	Address
Mobile Library	North County: 760-643-5125 East County: 619-660-6329
4S Ranch	10433 Reserve Dr. San Diego, CA 92127
Alpine	2130 Arnold Way Alpine, CA 91901
Bonita	4375 Bonita Rd. Bonita, CA 91902
Borrego Springs	571-A Palm Canyon Drive Borrego Springs 92004
Campo	31356 Highway 94 Campo, CA 91906
Cardiff-by-the-Sea	2081 Newcastle Ave. Cardiff-by-the-Sea, CA 92007
Casa de Oro	9805 Campo Road #145 Spring Valley, CA 91977
Crest	105 Juanita Lane El Cajon, CA 92021
Del Mar	1309 Camino Del Mar Del Mar, CA 92014
Descanso	9545 River Drive Descanso, CA 91916
El Cajon	201 E. Douglas El Cajon, CA 92020
Encinitas	540 Cornish Drive Encinitas, CA 92024
Fallbrook	124 S. Mission Road Fallbrook, CA 92028
Fletcher Hills	576 Garfield Ave. El Cajon, CA 92020
Imperial Beach	810 Imperial Beach Blvd. Imperial Beach, CA 91932

The Otay Ranch Resort Village
Public Facilities Finance Plan
Library Facilities

Jacumba	44605 Old Hwy. 80 Jacumba, CA 91934
Julian	1850 Highway 78 Julian, CA 92036
Lakeside	9839 Vine Street Lakeside, CA 92040
La Mesa	8074 Allison Ave. La Mesa, CA 91941
Lincoln Acres	2725 Granger Ave. National City, CA 91950
Lemon Grove	8073 Broadway Lemon Grove, CA 91945
Pine Valley	28804 Old Hwy. 80 Pine Valley, CA 91962
Potrero	24883 Potrero Valley Road Potrero, CA 91963
Poway	13137 Poway Rd. Poway, CA 92064
Ramona	1406 Montecito Rd. Ramona, CA 92065
Rancho San Diego	11555 Via Rancho San Diego El Cajon, CA 92019
Rancho Santa Fe	17040 Avenida de Acacias Rancho Santa Fe, CA 92067
San Marcos	#2 Civic Center Drive San Marcos, CA 92069
Santee	9225 Carlton Hills Blvd. #17 Santee, CA 92071
Solana Beach	157 Stevens Ave. Solana Beach, CA 92075
Spring Valley	836 Kempton Street Spring Valley, CA 91977
Valley Center	29200 Cole Grade Road Valley Center, CA 92082
Vista	700 Eucalyptus Ave. Vista, CA 92084

The Otay Ranch Resort Village
Public Facilities Finance Plan
Library Facilities



LEGEND

-  Otay Ranch Preserve & Resort Community
-  County Library
-  Chula Vista Library
-  Planned Facility

PLANNING SYSTEMS  

COUNTY LIBRARY FACILITIES 
 EXHIBIT N

Exhibit N – County Library Facilities

The Otay Ranch Resort Village
Public Facilities Finance Plan
Library Facilities

11.5 Project Demand

The Otay Ranch Facility Implementation Plan requires 350 square feet (gross) of adequately equipped and staffed regional/area library facilities per 1,000 population. The projected population for the Resort Village is 6,957 people; therefore, the Project will have a total library demand of 2,435 square feet.

11.6 Adequacy Analysis

The demand for library facilities generated by the build-out of the Project site will ultimately be satisfied by the existing libraries within the vicinity of the Project site and any new libraries constructed in the future. The Project site lies within the service area of the Rancho San Diego library which has capacity to serve the proposed project [personal communication from Charles Jarman, Facilities & Collection, Principle Librarian, San Diego County Library, 02/26/2015]. In addition, the Otay SRP plans for the location of a 36,758 sq. ft. main library in the Eastern Urban Center (EUC).

11.7 Inventory of Future Required Facilities

No specific library facilities will be required of the proposed Project.

11.8 Threshold Compliance

The Otay Ranch Resort Village will have a total library demand of 2,435 square feet. The Rancho San Diego library has capacity to serve the proposed project. In addition, the Otay SRP plans for the location of a 36,758 sq. ft. main library in the EUC. The demand for library facilities generated by the build-out of the Otay Ranch Resort Village will ultimately be satisfied by this main library, along with existing libraries within the vicinity of the project site.

11.9 Financing Library Facilities

Funding for construction of new library facilities throughout the County comes from a variety of sources, including redevelopment tax increment financing within some cities, general fund contributions from cities, private contributions and federal Library Services and Construction Act (LSCA) Title II grants. Since the County Library has its

The Otay Ranch Resort Village
Public Facilities Finance Plan
Library Facilities

own property tax share (approximately 3.2 percent of the one percent property tax), funding library facilities has not been funded from the County General Fund. Funding of City library facilities in the eastern part of the City comes from the Public Facilities Development Impact Fee Program. These facilities have been identified and fully funded to serve the Project.

The Otay SRP obligates the Project to contribute its proportionate fair share to any regional impact fee program, if one were to be established. The project is not within the boundaries of any current public facilities DIF program. The County Library has its own property tax share; thus, Project mitigation is achieved through the payment of property taxes. The fiscal analysis concluded that the project will generate approximately \$488,124 annually at buildout for the County Library fund. Thus, the project is projected to result in sufficient tax revenues to accommodate the demand for Library Facilities. Based upon the analysis contained in this PFFP, it is projected that the library threshold will be maintained throughout the development of the Project. As a result, no new facilities will be required of the Project.

12.0 Parks and Recreation Facilities

12.1 Otay SRP Threshold

The County Park Lands Dedication Ordinance (PLDO) and the Otay Ranch SRP are based on the standard that three (3) acres of local parkland be provided per 1,000 residents. In addition, the Otay SRP requires twelve (12) acres of other active and passive recreation and open space per 1,000 residents and fifteen (15) acres of regional park land per 1,000 residents

12.2 Service Analysis

The Otay SRP identifies four levels of parks. Town square or pedestrian parks average one acre in size and may contain small play grounds or picnic areas. They can be publicly or privately owned and are eligible for park credit. Neighborhood parks are typically sized between 5 and 20 acres and located to meet the needs of an individual village or planning area. Community parks should be at least 20 acres in size and programmed with intense recreational facilities designed to serve the needs of multiple villages or planning areas. Regional parks are typically larger than 200 acres and contain regional recreational facilities such as camping and hiking amenities.

The County Park Lands Dedication Ordinance requires 373.74 square feet of local parkland be provided per lot or unit, whichever is greater, in the Otay Planning Area (based on 3 acres per 1,000 resident standard). Town square/pedestrian parks, neighborhood parks, and community parks with active recreational uses can satisfy this requirement. The PLDO requirement can be satisfied through the dedication of land, the payment of fees, the provision of private or public recreation facilities or a combination of these methods.

The County Parks and Recreation Department is responsible for the planning and acquisition of County parkland and responsible for addressing compliance with the adopted thresholds.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Parks and Recreation Facilities

12.3 Project Processing Requirements⁷

- Provide a Parks Master Plan.
- Specific facility site identified and reserved including consideration of areas adjacent to public schools and other public lands where co-location is feasible and desirable.
- Equipment needs identified.
- Alternative financing methods refined.
- Alternative maintenance entities and funding identified.
- Timing of construction consistent with Otay Ranch Park and Recreation Implementation Plan identified.
- Sites for special purpose parks reviewed.
- Design criteria for land adjacent to regional parks prepared.

12.4 Existing Conditions

The proposed Project is located within the Otay Local Park Planning Area. Currently, no County Master Local Park Plan has been created for this area. One County park currently exists within the boundaries of the Otay Local Park Planning Area, Otay Lakes County Park. The Otay Lakes County Park is 78.0 acres and is located approximately two miles south of the Project site. Additionally, the Otay Valley Regional Park (OVRP) is a future planned park within the Otay Local Park Planning Area.

In addition to the two parks located within the Otay Park Planning Area, numerous County of San Diego and City of Chula Vista parks exist within the vicinity of the Resort Village. These parks are identified in the following four tables.

Table 38: Existing Parks within Otay Local Park Planning Area

Park	Jurisdiction	Acres
Otay Lakes County Park (Existing)	S.D. County	78.0
Total		78.0

⁷ From the Otay SRP.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Parks and Recreation Facilities

Table 39: Existing Regional Park Inventory

Park	Jurisdiction	Acres
Otay Valley Regional Park – Open Space Preserve ⁸	OVRP JEPA	3,000+
Sweetwater Park	S. D. County	571
Total Existing Regional Acres		3,571+

Table 40: Existing Chula Vista Community Park Inventory

Park	Jurisdiction	Acres
Chula Vista Community Park	Chula Vista	14.9
Greg Rogers Park	Chula Vista	43.4
Rohr Park	Chula Vista	59.5
Discovery Park	Chula Vista	20.4
Monteville	Chula Vista	29.0
Salt Creek	Chula Vista	19.8
Veterans Park	Chula Vista	10.5
Total Existing Community Acres:		197.5

Table 41: Future Otay Ranch Community Parks

Park	Jurisdiction	Acres
Otay Ranch Community Park (Village 8)	Chula Vista	51.5
Otay Ranch Community Park (Village 4)	Chula Vista	75
Total		126.5

12.5 Project Demand and Proposed Facilities

12.5.1 Local Park Compliance

The amount of park lands required in association with the Resort Village is based on the number of homes or lots (whichever is greater) in the village. For the Otay Local Park Planning Area, the PLDO requires the dedication of 373.74 sq. ft. of improved park land for each new unit or lot, whichever is greater. The Resort Village includes 1,938 units; therefore the total requirement is 16.63 acres of improved park land (1,938 x 373.74 sf/unit) divided by 43,560 sf/acre = 16.63 acres.

⁸ Only a portion of the OVRP is available for public use currently.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Parks and Recreation Facilities

To meet this requirement, the Resort Village proposes nine parks totaling 28.6 acres, ranging in size from 1.3 acre to 10.3 acres. The parks included in the project are identified in Table 48 below. As indicated in this table, public parks will be maintained by the County of San Diego through an assessment mechanism such as a CFD. Maintenance of private parks will be the responsibility of a homeowner’s association.

12.5.2 Open Space Compliance

The Otay SRP also requires 12 acres of “other passive or active recreation and open space areas,” per 1,000 residents and 15 acres of "regional park and open space" land per 1,000 residents.

Based on an estimated project population of 6,957 residents, the 12-acre standard requires 83.5 acres of open space and the 15-acre standard requires 104.4 acres of dedicated open space. This combined open space requirement of 187.8 acres is satisfied two ways. First, the proposed Project contains 143.6 acres of internal open space and approximately 1,089 acres of Preserve land. Second, as part of the Otay Ranch RMP Phase 2 conveyance obligation, the Project will convey approximately 887 acres of Preserve land to public ownership.

Table 42: Projected Conveyance Requirement

Use	Developable Acres
Single Family Residential	525.1
MU	14.1
Private Parks	7.6
Resort	17.4
Open Space	143.6
Internal Circulation	39.1
Total Developable Acres (Per Otay Ranch RMP Phase 2)	746.9
<i>Conveyance Factor</i>	<i>1.188</i>
Acres to be Conveyed to Preserve (747.7 x 1.188)	887.3

The Otay Ranch Resort Village
Public Facilities Finance Plan
Parks and Recreation Facilities

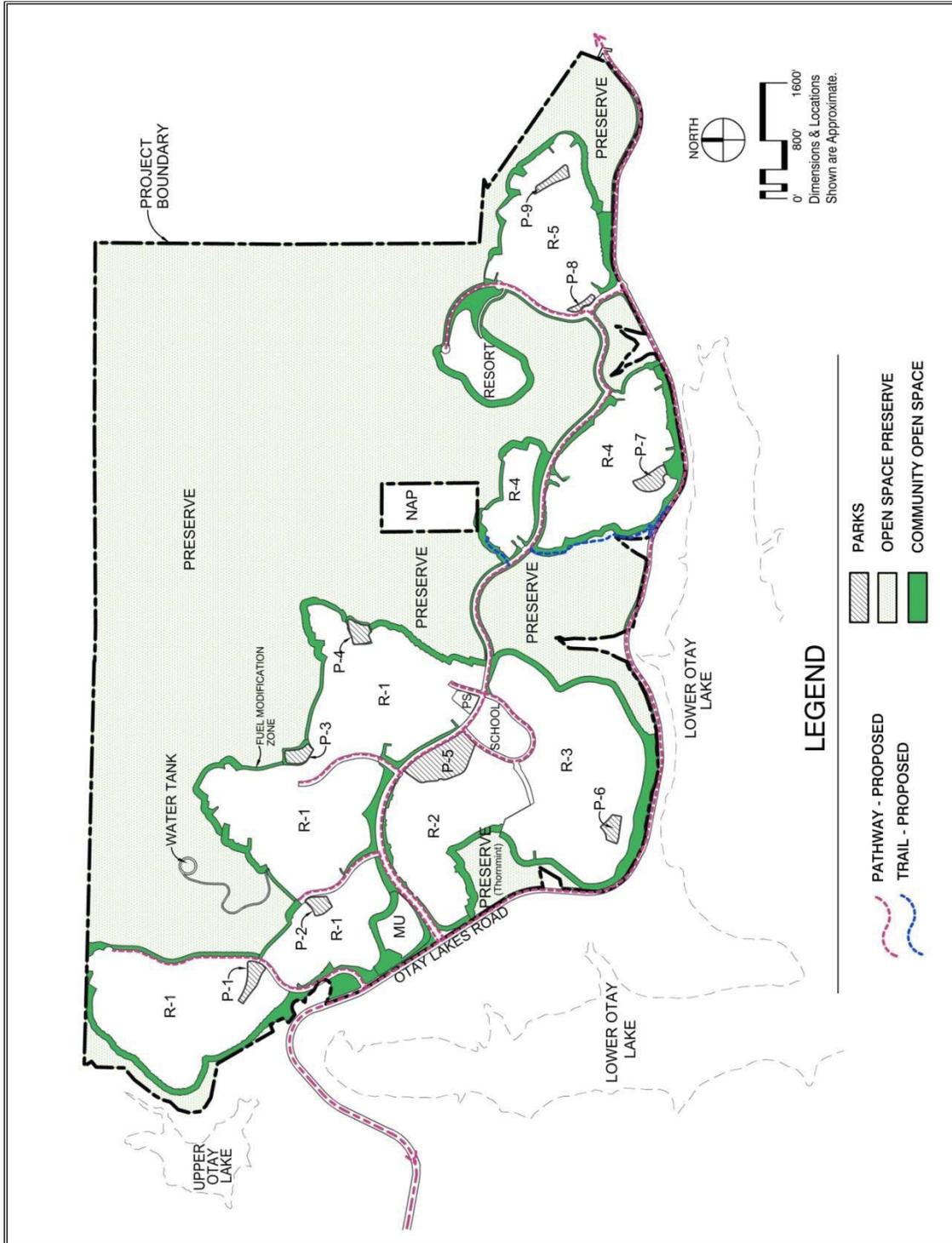


Exhibit O - Otay Ranch Village 13 Preserve, Parks, Recreation, Trails and Open Space Exhibit

The Otay Ranch Resort Village
Public Facilities Finance Plan
Parks and Recreation Facilities

It should be noted there is a distinction between the amount of Preserve acres in the project site (roughly 1,089 acres) and the conveyance obligation (roughly 887 acres). The two figures are not related to each other. The conveyance obligation is calculated by multiplying the project's development footprint (minus circulation element roads, public schools, and public parks) by 1.188. This determines the number of Preserve acres which must be conveyed into public ownership as final maps are approved for the Project. The Preserve land conveyed may or may not be Preserve land within the project boundaries, but must be within the boundaries of the Otay Ranch Preserve.

The majority of the natural open space within Otay Ranch is governed by the Otay Ranch Resource Management Plan (RMP), which established the 11,375 acres Otay Ranch Preserve open space system. The RMP requires Preserve land to be incrementally conveyed to a "Preserve Owner/Manager" (POM) in acreage proportionate to actual development of Otay Ranch property. The POM will be responsible for the maintenance, enhancement and restoration of the land within the Preserve. The ongoing maintenance and operation of Preserve land and resources is funded through an assessment imposed upon Otay Ranch development.

12.5.3 Trails

A system of local bicycle and pedestrian pathways and multi-use trails is planned within the project site. The pathway and trail system is shown on Exhibit O and additional details can be found in the Otay Ranch Resort Parks, Recreation, Open Space and Trails Master Plan and the Resort Village Design Plan.

Pathways will be phased in conjunction with adjacent circulation improvements. Pathways will be constructed by the developer and maintained by a homeowner association or other appropriate entity. Existing trails in the Otay Ranch Preserve will be maintained by the Preserve Owner/Manager.

12.6 Adequacy Analysis

Based upon the analysis contained in this section of the PFFP, the Project is projected to meet the demand generated by the ultimate residential development. The inventory of proposed park facilities is provided in Table 48. Therefore the park and open space demands are satisfied through implementation of the Project.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Parks and Recreation Facilities

Additionally, the PLDO includes an in-lieu fee which calculates the cost of park land acquisition and improvements in each park planning area on a per home basis. In the Otay Local Park Planning Area, the in-lieu fee is \$6,161 per home. If the project paid this fee for all 1,938 homes, the total amount collected would be \$11,940,018. However, it is anticipated the project will meet PLDO requirements through dedication of developed parkland by providing 28.6 acres of improved park land. The estimated cost for improvements to the proposed parks is roughly \$20,000,000. This amount does not include the value of the land. The provision of park improvements by the proposed Project meets the requirements of the County PLDO.

Demand for 187.8 acres of open space is met through provision of 143.6 acres of internal open space plus designation of 1,089 acres of Preserve within the Project.

12.7 Inventory and Cost Estimate of Future Facilities

Conceptual park features for each park facility in the Resort Village are provided below. However, further refinement of the programming for each park could result in other amenities being planned for each park.

12.8 Threshold Compliance

The parks and recreation facilities identified above (P-1 through P-9) satisfy the PLDO requirement for local parks. The combination of 143.6 acres of internal Open Space and 1,089 acres of Preserve will provide adequate open space to satisfy the open space requirement.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Parks and Recreation Facilities

Table 43: Inventory of Park Facilities

Park	Conceptual Features	Acres (Gross)	Acres (net)	PLDO Credit	Total Credit	Maint. Entity
P-1	Two U-8 soccer fields, half basketball court, a big kids play structure, toddler climbing rocks, toddler play area, covered picnic pavilions/seating areas/ benches	2.9	2.1	100%	2.1	CFD
P-2	A U-8 soccer field, a big kid play structure, a toddler play structure, toddler climbing rocks, covered picnic pavilions/ seating area/benches, and two drinking fountain	1.7	1.6	100%	1.6	CFD
P-3	Trail head, four U-6 soccer fields, two drop shot basketball courts, a big kid play structures, a play structure, covered picnic pavilions, open picnic area, seating areas/benches, and two drinking fountains	2.3	1.5	100%	1.5	CFD
P-4	Three U-6 soccer fields, full basketball court, skateboard park, a toddler play structure, toddler climbing rocks, covered picnic pavilions, open picnic area, seating areas/benches, and two drinking fountains	2.2	1.5	100%	1.5	CFD
P-5	One Softball field, two U-12 soccer field, two full basketball courts, gaga court, skateboard park, a big kid play structure, a toddler play structure, toddler climbing rocks, swing set, outdoor amphitheater, restrooms/comfort station, parking lot, two covered picnic pavilions, two open picnic areas, two seating areas/benches, and three drinking fountains	10.3	9.4	100%	9.4	CFD
P-6	Four U-6 soccer fields, two drop-shot basketball courts, a big kid play structure, swing set, , three covered picnic pavilions, seven seating areas/benches, and two drinking fountains	2.4	1.4	50%	0.7	HOA
P-7	U-10 soccer field, two half basketball courts, skate park, a big kid play structure, a toddler play structure, swing set, covered picnic pavilion, two open picnic areas, five seating areas/benches, and two drinking fountains	2.9	2.0	50%	1	HOA
P-8	Two U-6 soccer fields, a toddler play structure, toddler climbing rocks, one covered picnic pavilion, two open picnic areas, five seating areas/ benches, and two drinking fountains	1.3	1.0	50%	0.5	HOA
P-9	A U-8 soccer field, a full basketball court, two drop-shot basketball courts, a big kid play structure, playground game area, two covered picnic pavilions, open picnic area, four seating areas/ benches, and two drinking fountains	2.6	1.4	50%	0.7	HOA
TOTAL		28.6	21.9		19.00	
Demand based on PLDO					16.63	
DIFFERENCE (acres over requirement)					2.37	

The Otay Ranch Resort Village
Public Facilities Finance Plan
Parks and Recreation Facilities

12.9 Parks and Recreation Facilities Improvements Phasing

Table 49 describes the parks and recreation facilities improvements phasing for the Resort Village.

Table 44: Local Park Improvements Phasing

Phase	Pocket Parks Improvements
Blue	Subject to Park Agreement
Gold	Construction of P-3 subject to Park Agreement.
Green	Construction of P-4 subject to Park Agreement.
Copper	Begin construction of P-2 subject to Park Agreement.
Orange	Begin construction of P-1 subject to Park Agreement.
Purple	
Red	Begin construction of P-5 and P-6 subject to Park Agreement.
Silver	Begin construction of P-7 subject to Park Agreement.
Tan	Begin construction of P-8 or P-9 subject to Park Agreement.
Yellow	N/A
All Phases	Subject to Park Agreement.

12.10 Financing Park Facilities

Local park sites and improvements will be satisfied through compliance with the County's Park Land Dedication Ordinance (PLDO) whereby the developers shall receive credit against PLDO Fees for the dedication and construction of eligible park improvements.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

13.0 School Facilities

13.1 Otay SRP Threshold

Additional facilities to serve children generated by new development shall be provided concurrent with need, and shall be of the quality and quantity sufficient to meet, at a minimum, State Department of Education standards.

13.2 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 SDFEA*, to quantify the impacts of new residential development on the district's school facilities, and to

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

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, Proposition BB was approved by the voters. 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 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.

13.3 Project Processing Requirements

Specific Plan/Public Facilities Finance Plans

1. Identify student generation by phase of development.
2. Site proposed school facilities in conformance with the Chula Vista Elementary School District's Standards and Criteria and the Sweetwater Union High School District Long Range Comprehensive Plan.
3. Reserve school sites, if necessary, or coordinate with the district(s) for additional school classrooms.
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.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

7. Enter into a School Mitigation Agreement

13.4 Existing Conditions

13.4.1 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 (including Charter Schools) with approximately 2,500 employees (both certified and classified) district-wide. Table 44 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 44). A new K-6 school opened in Otay Ranch 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 within the next five years.

An additional elementary school is planned within Otay Ranch Village 2 and was expected to commence construction in 2011; however, construction has not yet begun and no construction update is available. Currently, several schools in eastern Chula Vista are over capacity, including Arroyo Vista, Hedenkamp, Veterans, McMillin, Wolf Canyon, and Salt Creek. The Learning Community and Mueller Elementary in western Chula Vista are also over capacity and are projected to be nearly 150 over capacity within five years.

Table 45: Chula Vista Elementary School District Enrollments

Schools	Estimated Enrollment 12/2013	Approximate Capacity	Remaining Capacity
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

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

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
Totals	28,890	32,759	3,869
District Adjustments		30,984	2,094

13.4.2 Sweetwater Union High School District

The District serves approximately 40,000 students in 11 middle (7-8) and 14 high school (grades 9–12) and more than 32,000 adult learners at 32 campuses. Several middle and high schools are planned or have been recently opened in the area. Otay Ranch High School is the nearest High School; however, the project area is outside the designated attendance area. Unless the attendance boundary is changed High School Students will attend Olympian High School, which was opened in 2006 within Otay Ranch Village 7,

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

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.

Table 46: Sweetwater Union Middle School Enrollments

School Site	Program Capacity 100%	Estimated Enrollment	Capacity vs. Projected
Middle Schools			
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
Subtotal	18,313	11,471	6,842

Table 47: Sweetwater Union High School Enrollments

School Site	Program Capacity 100%	Estimated Enrollment	Capacity vs. Projected
High Schools			
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

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

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
Subtotal	35,211	25,985	9,226

13.5 Project Demand and Proposed Facilities

13.5.1 Student Generation Factors:

For long-range facilities planning purposes, the referenced school districts have recommended the following student generation projection factors:

Table 48: Student Generation Factors

School Type	Grades	Students per SF Unit	Students per DU
Elementary	K-6	0.4114	0.3481
Middle School	7-8	0.1216	0.0516
High School	9-12	0.2291	0.1057

By phase and school category, the proposed Project is expected to generate students as determined in Table 48.

Table 49: Student Generation by Development Phase

Phase	Dwelling Units	Elementary School	Middle School	Sr. High School
Single Family	1,881	774	229	431
Multi Family	57	20	3	6
TOTAL	1,938	794	232	437

14.5.2 School Size Standards

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

School size standards adopted by the respective districts are as shown on the following Table. These sizes are "core" facilities only, and do not reflect modular, temporary structures which are routinely placed on campus to facilitate temporary expansion of classrooms, as necessary.

Table 50: School Size Standards

School Type	Grades	School Size
Elementary	K-6	750-1,000
Middle School	7-8	1,500
High School	9-12	2,400

13.5.3 School Siting Criteria

As established in the Otay SRP and Facility Implementation Plan, school facilities should be sited according to the following criteria. The ideal site should be:

1. At least ten (10) usable acres for an elementary school site, twenty-five (25) net usable acres for a middle/junior high school, and at least fifty (50) net usable acres for a senior high school, to adequately accommodate the loading and unloading of students, future expansion of facilities and offer design flexibility.
2. Centrally located to residential development to reduce bussing requirements, reduce walking distances for young children, encourage after-hours use of facilities by the public and discourage vandalism.
3. Adjacent to a street or road that can safely accommodate bike, foot and vehicular traffic. Middle school and high school sites should have no less than two sides with street frontage. Urban high schools are best located adjacent to collectors that can handle the increased traffic volume of student drivers and the entrance to the school should be signaled.
4. Topographically and environmentally safe and suitable to reduce site preparation costs and permit maximum use of the site for physical activities.
5. Site should be of sufficient usable acreage on one level and configuration to not limit the design of buildings and provide field and parking space.
6. Surrounded by land uses that produce a minimum of noise and traffic often associated with commercial and heavy industrial areas.
7. Located adjacent to parks to enable joint field and recreation facility uses.
8. Vacant and undeveloped with utilities stubbed to the site in order to reduce financial and costs of site acquisition.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

9. Located such that utilities and services (e.g. cable television, fire protection, and emergency medical services) are or will be readily available, to reduce site development costs.
10. Near imminent development of adjacent properties to insure road and other necessary off-site improvements are available in a timely manner.
11. School siting should be in a location acceptable to the State Division of Aeronautics with regard to distance from Brown Field.
12. A safe distance, i.e., as required by law, from contaminants or toxins in the soil or groundwater from landfills, fuel tanks, agricultural areas, power lines, utility easements, etc.
13. Outside of floodplains; on stable soils; away from fault lines.
14. Integrated into the system of alternative transportation corridors, i.e., bike lanes, riding and hiking trails, and mass transit, where appropriate.

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

13.5.4 Elementary School Demand

There are seven 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. These schools are currently operating at or over capacity. 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 Otay SRP land plan identifies one ten acre elementary school site within Village 15, located south of Lower Otay Lake. However, Village 15 has been acquired by conservation agencies for open space purposes and development of a school will no longer occur within this area. Therefore, to ensure that students from the Project will be accommodated concurrent with demand, the Project reserves an elementary school site (10.0 ac.) centrally located within the large residential area and adjacent to the 10.1 acre neighborhood park. This school site is identified as school in the Site Utilization Plan for this PFFP.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

Utilizing the student generation factors identified by the school districts, it is projected that approximately 794 elementary school students will result from development of the Project. This figure is within the recommended capacity of a single elementary (K-6) school (750-1000 students). The Village 13 site would be reserved for acquisition by the school district or dedication to the school district, pursuant to an agreement between the developer and CVESD. It is anticipated a graded school site will be delivered to the CVESD, including utilities provided to the site and an all-weather road acceptable to the Fire Department and District. The Otay SRP School Facilities Implementation Plan is based on the premise that schools will be constructed when no greater than half of the school's projected students reside in the community; however, facility phasing is solely determined by the District based on available school capacity in the vicinity of the Project site.

In the event that schools are overcapacity, the school district uses relocateable classrooms to temporarily house additional students until a new facility opens. In recognition of the impact on school facilities created by new development, the District and developers may enter into various mitigation agreements to ensure the timely construction of school facilities to house students from new residential development ("Mitigation Agreement"). Historically, developers and school districts have entered into a School Mitigation Agreement and school districts have utilized a community facilities district ("CFD") pursuant to the Mello-Roos Community Facilities District Act of 1982 (CVESD) to finance school facilities. However, per SB2926, in absence of a mitigation agreement, the developer shall pay the statutory school fees under state law in effect at the time of building permit issuance.

13.5.5 Middle School Demand

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 Table XX. Based on the student generation factors identified by the SUHSD, it is projected that 232 middle school students will result from development of the Project. Throughout the district additional middle school capacity is available. Students generated by the Project would be expected to attend an existing middle school. Sweetwater Union High School District officials have indicated that students generated by the project may attend EastLake Middle School. In addition, a new middle school site has been identified within Otay Ranch. This middle school is located in Village 7/8 and has a project capacity of 1,500 students. Once constructed, this facility may be used by middle school students generated by the Project.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

13.5.6 High School Demand

It is anticipated that 437 students would be generated by development of the Project. Throughout the district additional high school capacity is available. Students generated by the Resort Village residents would be expected to attend an existing high school. Sweetwater Union High School District officials have indicated students generated by the project may attend Eastlake High School. In addition, a new high school site has been identified within Otay Ranch. This high school is located in Village 11 and has a project capacity of 2,000 students. Once constructed, this facility may be used by high school students generated by the Project.

13.6 Adequacy Analysis

The Project student generation projections will necessitate construction of an elementary school. A school site within the village has been reserved in the Site Utilization Plan. To the degree that it can be determined at this time, this site is in compliance with the school siting criteria adopted by the Chula Vista School District.

To mitigate its impact on school facilities, the Project is required to pay school mitigation fees pursuant to Gov. Code Section 65995. Alternatively, the applicants may enter a "School Mitigation Agreement" with the school district(s).

13.7 Inventory of Future Required Facilities

A 10.0 acre site has been identified and reserved as a possible elementary school location.

13.8 Threshold Compliance

- A. Reservation of the school site shall be a requirement of development of the Project.
- B. Prior to the issuance of each building permit for any residential dwelling units, the applicant(s) shall provide evidence or certification by the Chula Vista Elementary School District (CVESD) that any fee charge, dedication or other requirement levied by the school district under state law has been complied with or that the district has determined the fee, charge, dedication

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

or other requirements do not apply to the construction or that the applicant has entered into a school mitigation agreement. School Facility Mitigation Fees shall be in accordance with the fees in effect at the time of building permit issuance.

- C. The applicant shall provide evidence from the CVESD that each school site has been determined by the district to be acceptable for school use.

13.9 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.

In recognition of this funding deficiency, it is the desire 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). The following Mello-Roos Districts have been created by each district:

SUHSD

- CFD No. 1 EastLake
- CFD No. 2 Bonita Long Canyon
- CFD No. 3 Rancho del Rey
- CFD No. 4 Sunbow
- CFD No. 5 Annexable
- CFD No. 6 Otay Ranch
- CFD No. 7 Rolling Hills Estate
- CFD No. 8 Coral Gate (Otay Mesa)
- CFD No. 9 Ocean View Hills
- CFD No. 10 Remington Hills/Annexable
- CFD No. 11 Lomas Verdes

- CFD No. 12 Otay Ranch (Village 1 West)
- CFD No. 13 San Miguel Ranch
- CFD No. 14 Otay Ranch Village 11
- CFD No. 15 Otay Ranch Village 6 (ORC)

CVESD

- CFD No. 1 EastLake
- CFD No. 2 Bonita Long Canyon
- CFD No. 3 Rancho del Rey
- CFD No. 4 Sunbow
- CFD No. 5 Annexable
- CFD No. 6 Otay Ranch
- CFD No. 10 Annexable for future annexations
- CFD No. 11 Otay Ranch (Lomas Verde)
- CFD No. 12 Otay Ranch (Village 1, West)
- CFD No. 13 San Miguel Ranch
- CFD No. 14 Otay Ranch Village 11 (Brookfield/Shea)
- CFD No. 15 Otay Ranch Village 6 (ORC)

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

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.

Table 51: Estimated School Costs

<u>Elementary School Cost</u>	
(1000 students) (\$30,000/student w/o land cost)	\$30,000,000
(1000 students) (\$33,500/student w/land cost)	\$33,500,000
<u>Middle School Cost</u>	
(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
<u>High School Cost</u>	
(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

14.0 Animal Control Facilities

14.1 Otay SRP Threshold

Participate in programs to provide animal control facilities sufficient to provide adequate square feet of shelter space per Otay Ranch dwelling unit.

14.2 Service Analysis

Animal control facilities and services for the proposed Project are provided by the County of San Diego. County animal control facilities protect the health and welfare of both residents and domestic animals. Build-out of the proposed Project may generate the need for additional or expanded animal control facilities.

14.3 Project Processing Requirements

Demonstrate conformance with the *Otay Ranch Facility Implementation Plan*.

14.4 Existing Conditions

The County of San Diego and the City of Chula Vista provide animal control services for the Otay Ranch planning area. The County provides the service for the unincorporated area including the Project site. The Humane Society provides animal shelter and related services and adoption, humane disposal and investigation for San Diego County.

The County provides services in all unincorporated portions of the county and in nine cities within the county by contract. Animal control staff is on premises 24 hours a day, seven days per week, and private veterinarians provide emergency services on a contract basis. The department provides the following services:

The Otay Ranch Resort Village
Public Facilities Finance Plan
Animal Control Facilities

- Emergency care for injured animals
- Surveillance for rabies, rabies vaccination clinics and quarantine of biting animals
- Investigation/prosecution of anti-cruelty laws
- Control of vicious or stray animals
- Licensing of dogs
- Adoption and lost pet services
- Spay/neuter referral and information
- Public education and information
- Inspection and licensing of private kennels
- Humane disposal of injured and unwanted animals
- Shelter domestic animals, reptiles and livestock
- Senior adoption and foster care programs
- Animal rescue – provides animal rescue to all cities in case of disasters

The South Shelter is located at 5821 Sweetwater Road in Bonita and currently provides animal control services to the area in the vicinity of the Project site.

14.5 Project Demand and Proposed Facilities

Build-out development of the Project will result in a total of 1,938 homes. This increase in population, in conjunction with the proportional regional growth of the area, will result in the need for additional or expanded animal control facilities. The Facility Implementation Plan indicates that a ratio objective of 0.13 sq. ft. of animal control facilities per home should be utilized in assessing project demand. As a result, the proposed Project will result in the need for 252 sq. ft. of animal control facilities.

14.6 Adequacy Analysis

The Otay Ranch Facility Implementation Plan provides that animal control facility requirements be addressed through off-site expansion of County of San Diego and City of Chula Vista facilities, as appropriate, based on jurisdiction. No specific animal control facilities will be required of the Project. The County will continue to monitor development rates in the area to determine continued compliance with the law animal control threshold.

14.7 Inventory of Future Required Facilities

No specific facilities will be required of the proposed Project.

14.8 Threshold Compliance

Based upon the analysis contained in this PFFP, it is projected that the animal control threshold will be maintained throughout the development of the proposed Project.

14.9 Financing Animal Control Facilities

Animal Control facilities serving the unincorporated area have been funded from the General Fund and service fees. The fiscal analysis concluded that the Project will result in a net fiscal annual surplus at build-out of \$4,492,767. Additionally, the Otay SRP obligates the Project to contribute its proportionate fair share to any regional impact fee program, if one were to be established. Thus, the project is projected to result in sufficient tax revenues to accommodate the demand for Animal Control Facilities.

The Olay Ranch Resort Village
Public Facilities Finance Plan
Regional Facilities Plans

15.0 Regional Facilities Plans

15.1 Otay SRP Requirement

The Otay SRP requires the preparation of Regional Facilities Plans concurrent with the Specific Plan for the following regional facilities:

- Arts and Cultural Facilities
- Cemetery Facilities
- Health and Medical Facilities
- Community Purpose Facilities
- Childcare Facilities
- Social and Senior Service Facilities
- Correctional Facilities
- Justice Facilities
- Integrated Solid Waste Management

Other facilities required to be addressed at the Specific Plan level are Solid Waste and Childcare facilities.

15.2 Service Analysis

The following shall constitute the Regional Facilities Plans for each facility as required by the Otay SRP.

Arts and Cultural

The Otay SRP anticipates a multi-use cultural complex in the Eastern Urban Center. In addition, public art and artistic public improvements will be visible in the design of the Resort Village. Elements such as landscaping, gateways, signage, street lights, paving materials, fencing, street and park furniture and other key focal points could be utilized. These design issues are addressed in the Resort Village Design Plan.

Additionally, the large neighborhood park (P-5) includes an amphitheater which can be used as a stage for artistic performances.

Cemetery Facilities

The Otay SRP requires that each Specific Plan confirm the Otay SRP conclusion that existing cemetery capacity is adequate to serve Otay Ranch residents. The Otay Ranch Resort Village residents' demand for cemetery space can be met by the nine cemeteries,

The Otay Ranch Resort Village
Public Facilities Finance Plan
Regional Facilities Plans

memorial parks or mausoleums within the South County area, including Cypress View, Glen Abbey, Greenwood, Holy Cross, La Vista, Mount Hope, Mount Olivet and San Ysidro.

Health and Medical

The Otay SRP requires opportunities be provided to health care providers to consolidate health care services as part of the Specific Plan review process. Based on existing and projected services provided in the South County, no additional acute hospital facility will be needed to serve the Otay Ranch Resort Village community. Both Scripps Memorial Hospital and Sharp Chula Vista Medical Center have the capacity to meet the medical needs of the Resort Village residents. The area will also be served by Paradise Valley Hospital and private facilities

In the area of mental health, recent service trends indicate an increase in day treatment and out-patient services as an alternative to traditional therapy in a hospital setting. This change in service delivery will compensate for increased service demand resulting from the Otay Ranch Resort Village population.

Build out of the Otay Ranch Resort Village will generate an incremental demand for additional nursing home beds. It is anticipated this demand can be met in existing nursing facilities within the South County. Build out will also generate the need for medical practitioners (doctors, dentists, chiropractors and allied health professionals). Space for purchase or lease, which is accessible to the public and suitable for siting medical practitioner services, will be available within the Mixed Use Planning Area of the Resort Village, the Eastern Urban Center and other retail areas in the City of Chula Vista.

Social and Senior Service Facilities

The Otay SRP establishes goals for ensuring Otay Ranch residents have adequate access to sources of governmental and private social and senior services programs. Social service programs are mandated by State and Federal statutes and regulations and are largely funded from State and Federal sources. The public sector provides many basic support services to needy segments of the population. At the regional level, the County of San Diego has the primary responsibility to provide social services to County residents. The Department of Social Services serves one out of every eleven County residents, or over 100,000 persons each month.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Regional Facilities Plans

There are numerous non-profit health and social service organizations located in the South County area. The County Area Agency on Aging provides social and nutritional programs, legal services, ombudsman programs and services to prevent or postpone institutionalization.

Correctional and Justice Facilities

The Otay SRP Correctional and Justice Facilities plans do not apply to the Resort Village.

Childcare Facilities

This section implements the Otay SRP requirement to prepare a Childcare Plan. The Resort Village Land Plan provides opportunities to locate facilities to meet the needs of the community. Childcare facilities may be located within private homes or commercial/mixed use centers.

Family Care Homes

Home-based child care includes small family day care homes (SFDCH) which serve 6 children and large family day care homes (LFDCH) which serve 7-12 children. Consistent with the Otay Ranch Resort Village Development Regulations, SFDCHs could potentially be located within residential zones in the Specific Plan area.

Child Care Center

Facility-based childcare may be non-profit or commercial facilities located in non-residential land use areas of the Otay Ranch Resort Village. The mixed use and Resort planning areas could include childcare facilities. The State has adopted regulations related to licensing, application procedures, administrative actions, enforcement provisions, continuing requirements and the physical environment for child day care and day care centers. All child care facilities within the Preserve and Resort area will need to comply with state, as well as local regulations.

Community Purpose Facilities

Community Purpose Facilities (CPF) is not required in the County of San Diego and, therefore, does not apply to the Resort Village.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Regional Facilities Plans

Integrated Solid Waste Management

The Resort Village will comply with the Otay SRP requirements for a waste management system, including:

- Curbside recycling
- Green waste recycling
- Material recovery facility
- A household hazardous waste collection facility
- Landfill capacity

Curbside pickup and recycling will be accomplished through a contract with a local service provider. Recyclables will be sorted at curb-side and disposed at the Otay Landfill.

It is that anticipated green waste collection will be offered every other week. Trash and recycling service will occur weekly. To promote recycling, it is anticipated that a waste service provider will offer different monthly trash service rates depending on the size of each residences trash container.

16.0 Public Facility Financing

16.1 Overview

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

Subdivision Exaction – Dedications and/or developer-constructed improvements, reservations of land, and supplemental improvements (reimbursement agreements) are financed as a condition of project entitlements. Exactions must substantially further a legitimate governmental interest, a nexus between the impact and the exaction must exist, and the exaction cannot deny a property owner economically viable use of its land.

Development Impact Fee – Funded through the collection of a fee or other consideration as a condition to approval of a final subdivision map. Such fee assists to defray the cost of constructing planned regional public improvements for which a project contributes an impact. Impact fees must be fairly apportioned either on the basis of benefits conferred or on the need created by the subdivision.

Debt Financing – Financing through a defined district of landowners in order to fund the up-front provision of a public facility.

County General Fund – Payment of general taxes to the San Diego County General Fund serve to pay for many public services throughout the County. Those facilities and services identified as being funded by General Fund sources represent those that will benefit not only the residents of the Project, but also residents within the County in general.

16.2 Subdivision Exactions

In return for receiving a permit to allow development of land, and in response to the projected development's demand for public services, the County may impose exactions such as a dedication of land or money in order that public facility improvements can be made in a timely manner. On the Project, neighborhood-level public improvements will be developed simultaneously with related residential subdivisions and other resort developments. The use of subdivision conditions and

exactions, where appropriate, will ensure that the construction of necessary facilities (supply) is timed in concert with actual development (demand). Such exactions must articulate the specific project for which the exaction is being conditioned.

16.3 Development Impact Fee Programs

The County may impose development impact fees or charges for the construction of public improvements. This may occur for public facilities and utilities for which an account has been established and funds appropriated for the project(s). These fees will contribute to the financing of capital facilities improvements within the County. Such fees are adopted in accordance with an established formula as set by State Law.

16.4 Debt Financing Programs

The County has utilized assessment mechanisms to finance a number of public street improvements, as well as regional sewer and drainage facilities. School Districts within the County have also implemented Community Facilities Districts to finance school facilities.

Such districts may be imposed for the purpose of acquiring land, constructing improvements and even maintaining certain facilities for the benefit of the public. The general administration of the district is the responsibility of the public agency.

Such debt financing (special districts) may be appropriate when the value or benefit of the public facility can be assigned to each specific property within an adopted district, and assessments levied in accordance with this benefit distribution. Assessments are levied in specific amounts against each individual property on the basis of this relative benefit.

16.5 County General Fund Impact

16.5.1 Introduction

As outlined in the Fiscal Impact Analysis, dated December, 2014, by Development Planning and Financing Group, two basic methodologies were utilized in estimating County revenues and expenditures; the case study and per capita/unit multiplier

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

methods. The case study method was used to estimate secured property tax, sales tax, transient occupancy tax (“TOT”) and real property transfer tax. The case study method is based on specific characteristics of the project from which revenues can be estimated. Appropriate County officials were contacted to identify actual tax rates, fees and costs. The per capita/unit multiplier method, which represents a more general approach were utilized to estimate licenses, permits and franchise fees, fines, forfeitures, other revenues and fees and all expenditures. The County of San Diego FY 2008-2009 Budget (the “Budget”) was utilized to estimate per capita/unit multipliers.

16.5.2 Project Demographics and Land Uses

In developing per unit/acre multipliers, the PFFP analysis utilized demographic and land use information related to the County as a whole and, more specifically, the Project. Included in table below are population, housing and land-use characteristics.

Table 52: General Assumptions in Fiscal Analysis

County of San Diego		Sources
Population	3,150,178	County of San Diego FY 13 Budget (pg.; 12)
Employment	1,276,500	County of San Diego FY 13 Budget (pg. 16)
Persons per household	3.59	SANDAG Estimate – 91914 zip code
Otay Ranch – Village 13 Resort		
Estimated Population	6,957	
Estimated Employees	382	DPFG
Housing Units	1,938	Applicants
Commercial - Hotel	17.4	Applicants
Commercial – Retail Mixed Use Acres	14.1	Applicants

16.5.3 Revenues

Annual revenues at build-out for the County resulting from the development of the Project are estimated in this section. The major revenue sources which are expected

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

to be generated from the Project and detailed in this section include secured property tax, sales and use tax, transient occupancy tax, real property transfer tax, taxes in-lieu of motor vehicle license fee, license revenues, permit fees, franchise fees, revenues from fines, forfeitures and penalties, revenue from use of money and property, charges for various current services and other miscellaneous revenues. The following section details each of the revenue sources and the methodology employed to estimate revenues from the subject development. All dollar figures are presented at build-out and in 2014 dollars (no inflation rates were used).

16.5.3.1 Secured Property Tax

Secured property tax revenues generated from the proposed development were calculated on the basis of a one-percent ad valorem tax rate on the estimated current market value of the residential and commercial development. The subject property is in the tax rate area 063075. According to the County of San Diego Property Tax Services Department, the County share of the one-percent ad valorem tax within the subject property tax rate area is approximately 21.36%.

Market values (assessed values) for the residential units were estimated by the developer based on current market conditions, market research and projected future demand per neighborhood as shown in Table 3 of Appendix A. Market values (assessed values) for commercial - retail mixed uses were estimated per Dollars & Cents of Shopping Centers by Urban Land Institute, dated 2008. Market values (assessed values) for the commercial - hotel uses were calculated based on an estimated \$260 Average Daily Rate ("ADR") per hotel room.

These identified market values also represent the assessed values. Although assessed values increase two percent per year and readjust after the property resells, this analysis assumes no inflation and all values remain in 2014 dollars. Included in the attached Table 3 of Appendix A is the assessed value at the build-out of the development. Total assessed value for the Project at build-out is estimated at \$1,524,591,000.

At project build-out, the County's General Fund share of the annual property tax (post ERAF) is estimated at **\$3,149,647** (refer to Table 5 of Appendix A). Of this amount, \$181,744 goes to a flood control fund, \$488,124 goes to the County Library, and the remaining \$2,479,779 goes to the County General Fund.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

16.5.3.2 Sales Tax

Under the California Sales and Use Tax Law, the sale of tangible personal property is subject to sales or use tax unless exempt or otherwise excluded. When the sales tax applies, the use tax does not apply and the opposite is also true. The sales tax is imposed on all retailers for the privilege of selling tangible personal property in the State and is measured by the retailer's gross receipts.

Sales taxes provide a major revenue source in the State of California (the "State"). All cities and counties in the State levy a basic one percent sales tax and have the option to levy additional sales taxes under certain circumstances. In general, sales taxes are imposed on the retail sale or the use of tangible personal property in the State.

Non-Residential Sales Tax

Commercial (retail-mixed use) taxable sales are projected at \$6,831,854 at build-out as shown below and calculated in Table 8 of Appendix A:

Table 53: Estimated Non-Residential Sales Tax Revenues

Probable Tenant	Type Bldg. SF Estimated	Sales per SF (a)	Estimated % Taxable	Estimated Taxable Sales (per SF)	Total Estimated Taxable Sales
Mixed Use Areas					
Convenience Store	3,500	\$429	75%	\$322	\$ 1,127,359
Coffee Shop	1,500	\$405	100%	\$405	\$ 606,840
Office	3,000	N/A	0%	-	-
Quick Serve Food	7,500	\$246	100%	\$246	\$ 1,847,400
Dry Cleaner	1,500	\$200	0%	-	-
Sandwich Shop	1,500	\$290	100%	\$290	\$ 434,355
Nail Salon	1,500	\$200	25%	\$50	\$ 75,000
<i>Subtotal</i>	<i>20,000</i>	-			<i>\$ 4,090,954</i>
Resort					
Meeting Rooms	1,000	N/A	0%	\$ -	\$ -
Conference Center	5,000	N/A	0%	-	-
Office	3,000	N/A	0%	-	-

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

Retail Shops	6,000	\$200	100%	\$200	\$ 1,200,000
Restaurant	5,000	\$308	100%	\$308	\$ 1,540,900
<i>Subtotal</i>	<i>20,000</i>	-			<i>\$ 2,740,900</i>
Total	40,000				\$ 6,831,854
Annual Sales Tax to County		1.00%			\$ 68,319

Footnotes:

(a) Per Dollars & Cents of Shopping Centers (2008) by Urban Land Institute.

One percent of the taxable sales in the amount of **\$68,319** is generated by the sales tax.

Off-site Sales Tax

Retail taxable sales generated from total residential purchasing power are projected at \$78,178,369 based on the assumption that residents will generate total retail purchases at 34.1% of household income. Household income is estimated at 35% percent of annual housing costs, which are estimated at \$52,689 based on a 20% down payment, 5.5% interest rate and 30 year loan term on an average sales price of \$753,762. Total taxable spending is estimated at \$78,178,369. Taxable off-site sales captured in the County from new residents of the project are estimated at a 10% percent capture rate of the taxable sales and total \$7,817,837.

The County has a sales tax rate of one percent. The project's indirect sales tax to the County is estimated to be **\$78,178** as shown in Table 9 of Appendix A.

Table 54: Estimated Off-site Sales Tax Revenue

Spending by Residents	Factor	
Aggregate Incomes (from Appendix A, Table 9)	\$151K per Unit	\$ 292,638,000
Consumer Expenditures (a)	78.4%	\$ 229,493,932
Taxable Spending (a)	34.1%	\$ 78,178,369
Less: On-site Capture (b)	5.0%	\$ (3,908,918)
Less: Incorporated City Capture (b)	85.0%	\$ (66,451,614)
Net Taxable Spending in County		\$ 7,817,837
Annual Sales Taxes to County	1.0%	\$ 78,178

Footnotes:

(a) Per Bureau of Labor Statistics Consumer Expenditure Survey, 2012.

(b) Capture percentage represents DPF's estimate based on location relative to other retail establishments in the market area.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

16.5.3.3 *Transient Occupancy Tax*

Transient occupancy tax (TOT) is a tax added to the price charged for the use of a hotel or a motel room. The majority of the tax is associated with new hotel developments. This FI Analysis anticipates the development of a resort-type hotel, which will consist of approximately 200 rooms and will be built on 17.4 acres. The TOT is projected based on the following assumptions:

- 70 percent occupancy rate
- 200 rooms
- \$260 average room rate
- 8% transient occupancy tax rate

The information used in the determination of the TOT was compiled from various sources. The estimated occupancy rate of 68% is based on surveys for the San Diego area performed by various hotel research firms. The size of the hotel and the average room rate has been provided by the developer. The 8% occupancy tax rate has been obtained from Chapter 2, San Diego County Uniform Transient Occupancy Tax Ordinance (Sec.22.212).

Table 55: Estimated TOT Revenues

Proposed Resort Hotel		
No. of Rooms		200
Average Daily Rate (ADR)		\$ 260.00 (a)
Occupancy Rate (%)		70.0% (a)
Total Annual Room Revenues		\$13,286,000
Annual County Transient Occupancy Tax	8.00% (b)	\$1,062,880

Footnotes:

(a) Source: HR&A, PKF Consulting, and DPFPG.

(b) Transient occupancy tax rate per County of San Diego Transient Occupancy Tax Ordinance effective 10/1/1964, amended 10/26/2007.

Using these assumptions the County General Fund will receive a total annual TOT of approximately \$1,062,880 at the project's build-out (refer to Table 6 of Appendix A).

16.5.3.4 *Real Property Transfer Tax*

Sales of real property in San Diego County are taxed at a rate of \$1.10 per \$1,000 of the sales price. Assuming that the average turnover rate for residential property is once

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

every ten years and the average turnover rate for nonresidential property is once every 20 years. The following formulas, which take both the transfer tax formula and the average turnover rate into account, were utilized to yield average annual per unit real property transfer tax.

Single/Multi Family Residential $\$1.10/\$1,000 \times 1/10 = 0.00011$

Commercial $\$1.10/\$1,000 \times 1/20 = 0.000055$

Using these formulas, an estimated annual average real property transfer tax can be calculated. The project would generate **\$164,196** (refer to Table 7 of Appendix A) in average annual real property transfer tax at build-out.

Table 56: Estimated Property Transfer Tax Revenue

	Residential	Commercial	Total
Total Assessed Value (from Appendix A, Table 3)	\$1,460,791,000	\$63,800,000	\$ 1,524,591,000
Turnover Rate (a)	10.00%	5.00%	
Annual Taxable Assessed Value	\$ 146,079,100	\$ 3,190,000	\$ 149,269,100
Property Transfer Tax Rate (b)	0.110000%	0.110000%	0.110000%
Total Annual Property Transfer Taxes	\$ 160,687	\$ 3,509	\$ 164,196

Footnotes:

- (a) Based on assumption that residential property will change ownership once every 10 years and commercial property will change ownership once every 20 years.
- (b) Represents property transfer tax rate of \$1.10 per \$1,000 of sale or resale value per Revenue and Taxation Code Section 11911-11929.

16.5.3.5 Taxes In-Lieu of Motor Vehicle License Fee

In May 2004, Governor Schwarzenegger proposed a swap of city and county VLF revenue for additional property tax share as part of a budget agreement between the State and local governments. The swap was included in the 2004 budget package. Under this legislation, property tax in-lieu of VLF is allocated to Cities and Counties, pursuant to a complex formula involving each agencies relative share of assessed value. The property tax in-lieu of VLF revenue that will be generated by the Project can be estimated by determining the (i) percentage growth in the total assessed value of the unincorporated area of the County attributable to the Project, and multiplying by (ii)

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

the property tax in-lieu of VLF revenue of \$306.6M expected to be received by the County in FY 2013-14 per the County Budget. Based on these calculations, the Project is anticipated to generate \$8,090,176 annually in property tax in-lieu of VLF revenue, as shown in the table below (reference Appendix A, Table 6).

Table 57: Estimate In Lieu MVLFF Revenues

FY 2013/14 In Lieu MVLFF Allocation to County	\$ 306,580,585 (a)
FY 2013/14 Unincorporated County AV	\$ 57,418,137,249 (b)
Total Project Assessed Value from Table 3	\$ 1,524,591,000
Less: Existing Assessed Value	\$ (9,417,336)
Net (New) Assessed Value	\$ 1,515,173,664
AV Growth from Project	2.639%
Annual County Property Taxes In Lieu of MVLFF	\$8,090,176

Footnotes:

- (a) Per County of San Diego Fiscal Year 2013 Adopted Budget (pg. 77).
- (b) Per County of San Diego Assessor's Office.

16.5.3.6 Other Revenues

The County receives various other revenues analyzed under the FIA. These include (i) franchise, license, and permit revenues, (ii) fees, fines, and forfeitures, (iii) penalties & cost delinquency taxes, and (iv) miscellaneous revenues. These revenues have been estimated using a Per Capita & 50% Employee Multiplier against the County budgeted revenues for each respective revenue category. Based on the total Per Capita & 50% Employee Multiplier of \$7.24, total annual "other" revenues are anticipated to be \$51,757 at buildout, as seen in Appendix A, Table 11.

Licenses, Permits and Franchises

The FI Analysis groups numerous revenues into the category of license and permit fees. These revenues include: animal licenses, kennel license, business licenses, marriage licenses, miscellaneous licenses and permits, food handling licenses, construction permits, bio-hazardous waste permits, recreation fees and other miscellaneous permits and fees. For these revenues, except for the business licenses, miscellaneous licenses and permits, and the food handling licenses, per capita multipliers were developed by dividing the Budget's respective revenue items by the County's total population. Similar methodology was used to determine the per capita and per employee multipliers for the business licenses, miscellaneous licenses and permits, and the food

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

handling licenses, except that the per capita and per employee multipliers were developed by dividing the Budget's respective revenue by the County's total population and employment (refer to Table 11 of Appendix A). Franchise fees are charged to various entities in exchange for the exclusive right to operate franchises within the County's jurisdiction. Franchise, license and permit fees for the project are estimated at \$2.77 per capita and per employee based on these budgeted revenues. Based on the per capita and per employee amount calculated from the County budget, the project would generate **\$19,790** in total licenses, permits and franchises at project's build-out (refer to Table 11 of Appendix A).

Fines, Forfeitures and Penalties

The County Budget for fines, fees and forfeitures totals \$2,198,205 for FY 2014/15. This revenue is projected at \$0.58 per capita based on this budgeted revenue. Based on the per capita amount calculated from the County budget, the project will generate **\$4,148** in total fines, forfeitures and penalties at build-out (refer to Table 11 of Appendix A).

Penalties and Cost Delinquency Taxes

The County Budget for revenue from penalties and cost delinquency taxes total \$13,712,175 for FY 2014/15. This revenue is projected at \$3.62 per capita based on this budgeted revenue. Based on the per capita amount calculated from the County budget, the project would generate **\$25,872** in total revenues from the use of money and property at build-out (refer to Table 11 of Appendix A).

Interfund Charges/Miscellaneous Revenues

The County Budget for revenue from interfund charges and miscellaneous revenues total \$1,032,112 for FY 2014/25. This revenue is projected at \$0.27 per capita based on this budgeted revenue. Based on the per capita amount calculated from the County budget, the project would generate **\$1,947** (refer to Table 11 of Appendix A) in total charges for current revenues at build-out.

16.5.4 Costs

Annual costs at build-out resulting from development of the project are outlined in this section. The annual cost categories to be impacted by the subject development include the general function (legislative/administrative services, finance services, counsel services, personnel services, elections services, property management services, plant

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

acquisition services, promotion services and other general services), public protection function (judicial services, police protection services, detention and correction services, protective inspection services, other protection services and family support services), health and sanitation function (health services and sanitation services), education function (library services, agriculture education services), recreation and cultural function (recreation facilities) and contingency function. A summary of the County FY 2008-10 Budget is presented in the attached Table 6. These annual costs are utilized in estimating the per capita expenditure or a percentage of the direct cost expenditures for the project. The methodologies used to estimate project expenses are discussed in more detail in the following sections. Similar to the revenue analysis, all figures shown are in current (2009) dollars.

16.5.4.1 Public Safety

Public Safety costs include expenses related to the District Attorney, Sheriff, Fire, Probation Department, trial courts, child support services and other services, many of which are provided on a County-wide basis to all County residents. However, certain services such as Fire and Sheriff are only provided to unincorporated areas, except for certain contractual arrangements. For example, the Sheriff's Department provides contract law enforcement services for the cities of Del Mar, Encinitas, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, Solana Beach and Vista. Also, the San Diego County Fire Authority has contracts in place with various other agencies. Due to the abbreviated scope of this analysis and the unavailability of detailed breakdowns of certain County Budget data, this analysis does not dissect and stratify the County Public Safety budget and attempt to allocate specific costs to the Project based on each expense subcategory and associated service area or population. Instead, the FIA uses a Per Capita & 50% Employee (Unincorporated) Multiplier against the entire Public Safety general purpose revenue allocation of \$627.6M less \$16.7M allocable to the San Diego County Fire Authority for fire services, resulting in a multiplier of \$1,048.68 per person. This methodology is viewed as being conservative in that the service population utilized for spreading costs represents only the unincorporated area, despite the fact that many of the applicable services are provided on a county-wide basis. Based on this multiplier, total annual public safety costs are estimated at **\$7,495,969** at buildout, as seen in Appendix A, Table 12.

7.1.1 Fire Protection

The San Diego Rural Fire Protection District is responsible for providing fire services to the Resort Village property. A separate fiscal impact analysis has concurrently been

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

prepared to determine the net fiscal impact to the agency, and as such is not analyzed in this report. That report details how the project would provide funding for the operations and maintenance of on-site fire facilities.

7.1.2 Sheriff's Department

The San Diego County Sheriff's Department provides contract law enforcement services for the cities of Del Mar, Encinitas, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, Solana Beach and Vista. In these cities the Sheriff's Department serves as their police department, providing a full range of law enforcement services including patrol, traffic and investigative services. In the unincorporated (non-city) areas, such as where the Project is located, the Sheriff's Department provides generalized patrol and investigative services. The California Highway Patrol has the primary jurisdiction for traffic services in unincorporated areas.

The Sheriff's Department service area covers approximately 4,200 square miles. Sheriff's Department facilities located in unincorporated areas provide general law enforcement patrol, crime investigation, and crime prevention services. To effectively serve this extensive geographic area, the Sheriff's Department Law Enforcement Services Bureau operations are organized under a system of Command stations, substations, offices and storefronts. A separate rural enforcement area addresses the special needs of outlying areas patrolled by resident deputies. The operational structure is flexible, and areas may be realigned in order to provide better response to citizen calls for service, to ensure a balance of resources, and to be more responsive to community needs.

The Sheriff's Department Law Enforcement Operations Command Areas have further been divided into beat districts which serve the unincorporated County. The Project is located in the Imperial Beach beat district which is serviced via the Imperial Beach Substation. The cost of sheriff services for the Project is included in the public safety costs described in Section 7.1 above.

16.5.4.2 Health and Human Services

The Health and Human services cost category includes regional operations, aging and independence services, behavioral health services and child welfare services. Using a Per Capita & 50% Employee Multiplier of \$17.37, total annual health and human services costs are anticipated to be **\$124,151** at buildout, as seen in Appendix A, Table 12.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

16.5.4.3 Land Use and Environmental

The Land Use and Environment Group cost category includes agriculture, weights and measures, environmental health, parks and recreation, planning and land use and public works costs. Using a Per Capita & 50% Employee Multiplier of \$12.33, total annual land use and environmental costs are anticipated to be **\$88,113** at buildout, as seen in Appendix A, Table 12 of the FIA

16.5.4.4 Community Services

The Community Services Group cost category includes animal services, housing and community development, purchasing and contracting, the County Executive Office and Registrar of Voters. Using a Per Capita & 50% Employee Multiplier of \$5.38, total annual community services costs are anticipated to be **\$38,491** at buildout, as seen in Appendix A, Table 12 of the FIA.

16.5.4.5 Finance and General Government

The Finance and General Government services cost category includes executive office, assessor/recorder/county clerk, treasurer – tax collector, auditor and controller, county counsel and human resources costs. Using a Per Capita & 50% Employee Multiplier of \$31.52, total finance and general government costs are anticipated to be **\$225,284** at buildout, as seen in Appendix A, Table 12.

16.5.4.6 Finance - Other

Other finance costs include community projects, community enhancement, contingency reserve, and countywide general expense costs. Using a Per Capita & 50% Employee Multiplier of \$28.03, total other finance costs are anticipated to be **\$200,378** at buildout, as seen in Appendix A, Table 12.

16.5.5 Net Fiscal Impact

Utilizing the previously mentioned methodologies, estimated net fiscal impact at build-out is presented in Table 1 of the Appendix. As previously mentioned, all values are in 2008 dollars. No annual adjustments to revenues or costs were utilized.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

Fiscal annual revenues are estimated at \$12,772,914 at the project's build-out and fiscal annual costs are estimated at \$8,172,386 at the project's build-out, resulting in a net fiscal annual surplus at build-out of \$4,492,767.

Table 58: Net Fiscal Impact

Revenues/(Expenditures)	Estimated Revenue	Estimated Expenditures
<u>Recurring Revenues</u>		
Property Tax	\$3,149,647	
Sales Tax (onsite)	\$68,319	
Sales Tax (off-site)	\$78,178	
Transient Occupancy Tax	\$1,062,880	
Real Property Transfer Tax	\$164,196	
Taxes In-Lieu of Motor Vehicle License Fee	\$8,090,176	
Other Revenues	\$51,757	
<u>Recurring Expenditures</u>		
Public Safety (excluding Fire)		\$7,495,969
Fire Protection		
Health and Human Services		\$124,151
Land Use and Environmental		\$88,113
Community Services		\$38,491
Finance and General Government		\$225,284
Finance Other		\$200,378
Total Revenues and Costs	\$12,665,153	\$8,172,386
Total Surplus	\$4,492,767	

16.6 Other Methods Used to Finance Facilities

State and Federal Funding – Historically, federal and state financial and technical assistance programs have been available for County agencies to utilize, particularly for public school districts.

The Otay Ranch Resort Village
Public Facilities Finance Plan
Public Facility Financing

Developer Reimbursement Agreements – Certain facilities that are off-site of the project site, but are necessary to serve the project may provide regional benefits beyond the Project. Under such circumstances, developer reimbursement agreements for up-front funding of improvements can be executed to provide for a future payback to the developer from other properties benefiting from the improvement. Such benefiting developments are required to reimburse their fair share of costs for the shared facility at the time that their project is issued permits for development.